

ENSIGN COLLEGE OF PUBLIC HEALTH-KPONG

**KNOWLEDGE AND PERCEPTION OF CONTRACEPTIVES USAGE
AMONGST ADOLESCENTS GIRLS: A CASE STUDY AT DZODZE-PENYI
SENIOR HIGH SCHOOL, KETU-NORTH DISTRICT OF THE VOLTA
REGION**

BY

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**A THESIS SUBMITTED TO THE DEPARTMENT OF COMMUNITY
HEALTH OF THE FACULTY OF PUBLIC HEALTH IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER
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DECLARATION

I hereby certify that except for reference to the work of others, which I have duly cited, this project submitted to the Department of Community Health, Ensign College of Public Health, Kpong is the results of my own investigation, and has not been presented for any other degree elsewhere.

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DEDICATION

This Thesis is dedicated to the more than enough God and my Dad, Andrews
Gbeze.

ACKNOWLEDGEMENT

The successful completion of this thesis is made possible through the help of my family and friends. Firstly, my appreciation goes to my supervisor, Dr. Stephen Manortey for his patience, guidance, and the support he provided in making this research successful. My appreciation also goes to the authorities of Dzodze-Penyi Senior High School for allowing the study to be conducted in their school and with their students. I thank my respondents for participating in the study. I would also like to thank my friends and colleagues, who supported me in diverse ways to make this thesis successful. My final appreciation goes to my family especially my dad for his prayers and encouragement

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ABSTRACT

Background: Adolescents are defined as young people aged 10 to 19 years. Studies show the adolescents are becoming more sexually active in recent times than in the past and may experience several risks in their sexual behaviors that have implications for their health. The sexual behaviors adopted by the adolescents have serious implications on their future health too with regards to morbidity, as well as mortality. Contraception is one of the strategies to reduce the risk associated with sexual behaviors.

The objectives of this study were to examine the associated factors of sexual behaviors and practices as well as the level of contraceptive usage among the students.

Methods: A cross-sectional study design with a quantitative approach to data collection was employed. A structured questionnaire was used as the main data collection tool. The study took place in the Dzodze-Penyi Senior High School, Ketu-North district of the Volta Region of Ghana. The main population of the study was the adolescent girls in the senior high schools and a total of 200 were selected as sample size. Univariate, bivariate and multivariate statistical analyses were performed. A p-value of 0.05 was assumed as the level of significance at a 95% confidence interval.

Results: It was found that 26% of the respondents were in a sexual relationship and among those who were not dating at the time of the study, 5.4% had dated before. Those who had sexual intercourse before were 27% and among them, almost 39% had unprotected sex. Also, it was found that more than half (53.7%) of those who had sexual intercourse did it within the age group of 16-19 years. Contraception use was high 74% compared to 26% who did not use contraception. Condoms were the most common contraception among the respondents. The study found a high knowledge (85%) of contraception and human sexuality among the

respondents, however, knowledge on emergency contraception was low. Age group and department of affiliation were found to be significantly associated with knowledge level ($p=0.03$ and 0.024 respectively). Almost all respondents agree that sex education should be part of our school.

Conclusion: Although knowledge level on contraception was high, there should be an intensified and continuous education and health services for the senior high school students. This is because the study found some level of sexual risk behaviors such as unprotected sex, unintended pregnancies, and abortions.

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ABBREVIATION/ACRONYMS

AIDS	Acquired Immune Deficiency syndrome
ARH	Adolescent Reproductive Health
AOR	Adjusted Odds Ratio
CDC	Centers for Disease Control
CI	Confidence Interval
COR	Crude Odds Ratio
FP	Family Planning
GDHS	Ghana Demographic and Health Survey
GES	Ghana Education Service
GYRHS	Ghana Youth Reproductive Health Survey
HIV	Human Immuno-deficiency Virus
ICPD	International Conference on Population and Development
IUDs	Intra Uterine Devices
SSA	Sub-Sahara Africa
STDs	Sexually Transmitted Diseases
STI	Sexually Transmitted Infections
TPB	Theory of Planned Behavior
WHO	World Health Organisation
UNAIDS	United Nations Agency for International Development

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Adolescence is defined as “a transition period characterized by risk-taking behavior” (Asiedu, 2016). According to WHO (2013), adolescents are young people aged 10 to 19 years. Adolescents are becoming more sexually active in recent times than in the past (Wusu, 2013). These risks include sexual behaviors that have implications for the health of the adolescent. Sexual behaviors adopted by the adolescents in this period have serious implications on their future health with regards to morbidity, as well as mortality (UNAIDS 2012, Population Reference Bureau, 2012).

The riskiest sexual behavior among young people, particularly in settings where HIV/AIDS is highly prevalent is engaging in unprotected sex (McRee *et al.*, 2010, NRC-IOM, 2005). Consciousness, knowledge-acquisition, adaptation, and other forms of educational attainment among adolescents have risen rapidly and fast throughout the developing world (Puttnam, Frederick, & Snellman, 2012; Myer *et al.*, 2007). Similarly, sexual and reproductive health behavior patterns among adolescents are changing within rapidly shifting environments, in terms of health risk and health services. These patterns of sexual behavior changes are noticeable in terms of changing fertility preferences causing a delay in the timing of marriage and changing opportunity structures with respect to education and employment (McFarlane *et al.*, 2014 and Puttnam *et al.*, 2012).

Sex among these adolescents is usually out of curiosity, secretive, and unprotected and it often leads to risks of unplanned pregnancies that result in unsafe abortions. Adolescents often risk contracting sexually transmitted infections (STIs) such as syphilis, gonorrhea, chlamydia, chancroid, genital herpes, candidiasis, and trichomoniasis (Snoek *et al.*, 2014). There are more than one billion adolescents (10-19 year) worldwide, 70 percent of whom live in low-income countries (UNESCO, 2014; Centers CDC, 2012). These age groups are mostly found in Senior High Schools in Ghana.

It is, therefore, critical and dawning on these countries including Ghana to engage with this large proportion of their populations and to address their health needs (Asiedu, 2016). According to UNAIDS, (2008) adolescents consider themselves grown up and mature enough to have sex and yet they have inadequate knowledge about the consequences of unprotected sex. It indicates consequences such as unplanned pregnancy, complications of unsafe abortion and sexually transmitted infections have wider ramifications for the self-actualization of adolescents. According to Ahorsu, the challenges and consequences associated with adolescent sexual behavior are more complicated in developing countries where, for religious, cultural, affordability, structural and other forms of perceptual constraints sex education, particularly bordering on contraceptive use, for adolescents is very limited (Ahorsu, 2019).

Contraceptives refer to any family planning methods used to deliberately prevent pregnancy, and often the transmission of sexually transmitted diseases. This is achievable by interfering with the normal process of ovulation, fertilization, and implantation (Geske *et al.*, 2015). The idea and practice of contraception is as old as time itself. But, for just as long, finding a convenient, effective and easily accessible method for any anyone's has been a major hurdle to cross (Edgerton, 2011; Tone, 2002). This challenge exists primarily because of the push-

pull forces of various contextual factors, which can be socio-demographic, cultural, economic, and religious or even psychological (Kamhawi *et al.*, 2013).

Access to family planning is, however, a human right, biological and health need, and a socio-economic necessity. It is a human right issue because every woman has the fundamental human right to determine how many children she wants and when she wants to have them (Miller, 2010). The socio-economic necessity flows out of the fact that uncontrolled population growth will inevitably lead to overpopulation and its attendant consequences of high unemployment and youth dependency, rampant poverty, high child and maternal mortality, scarcity of resources like water that often leads to conflicts, and general environmental degradation (Hinrichsen & Robey, 2000; Macpherson, 2005). It is a biological and health need because unplanned pregnancies and ill spaced birthrates adversely affect the health of both parents and children, in this case, teenage parents. As such, easing access to family planning is a practical imperative.

Ghana just as other developing countries are fast undergoing socio-cultural, political and economic changes adapting to concepts of best practices in all sphere of life (Deri, 2016). Sexual consciousness, orientation, and practices, among all ages, especially adolescents, are equally undergoing vast changes largely because of revolutions in information technology and social media (Deri, 2016). However, Ghanaian adolescents are of different demographics with varying levels of consciousness and knowledge of sex education. It is therefore not surprising that studies have shown that teenage unprotected sex, pregnancy, and contraction of sexually transmitted diseases such as HIV/AIDS remain high among teenagers, even in-school adolescents. This, however, suggests that school girls have the right to decide when they start giving birth, and the only assured way is of staying in school to achieve their

educational objectives. Deri, (2016) in her work identified factors such as income level, knowledge, attitude and perception on family planning, information exposure, social and family beliefs as some barriers to the use of contraceptives. This research, therefore, studies the knowledge and perceptions of contraceptive use among adolescent girls in Ghana. It uses adolescents in Dzodze-Penyi Senior High School in the Volta Region as its case study.

1.2 Problem Statement

Pregnancies among students pose major public health problems globally, including the Ghana. Such pregnancies are mostly unintended and unplanned, and mostly many are aborted either legally or illegally (Oyedeji & Cassimjee, 2007). Between 30% and 50% of students presenting for anti-natal care were not using any form of contraceptives at the time of conception, and similar numbers of pregnancies were unplanned and unwanted (Bongaarts 2009). Pregnancies among students are associated with numerous effects, such as jeopardizing educational progress and future careers and also further drain public funds by increasing health care burden. In a study among adolescents in some countries in Africa, reported that adolescent pregnancies had both short- and long-term effects on the national economy, economic development and growth, education, human resource training and providing housing (Oliveira & Chen-Mok, 2001)

There is increasing misconception on contraceptive use especially among young people. Although contraception and emergency contraception are readily available, its usage is affected by wrong perceptions and low knowledge amongst young the population. It is also observes that in many sub-Saharan African (SSA) countries, there have been persistently high rates of unmet need for family planning and low rates of contraceptives use (Westoff, 2001).

According to Shan *et al.*, (2007) the delivery and the utilization of contraceptive in Ghana reflects the situation in Africa. Based on these facts and the dangers associated with unprotected sex, the study aims at assessing the knowledge, practice, and perception of contraceptives usage amongst adolescents in senior high school (Peter, 2013). The study also sought to find out how, from the perspective of adolescents, health practitioners, other respondents, and relevant literature what is problematic of contraceptive use and how its use can be improved.

1.3. Rationale of the Study

The findings of this study could provide a basis for reviewing the current health behavior program offered in schools, clinics and hospitals in the district. This could enable the development of a more practical integrated program to meet the total health needs of secondary school students and adolescents in the district, with special emphasis on safe sexual practice or delayed sexual practices.

Furthermore, the results of the study could lead to the development of programs to revitalise sex education, sensitisation, mobilisation and motivation for health as well as the redirection, strengthening and provision of sexual information to sustain the motivation of the secondary school health programs in the district which can be replicated in other areas of the country.

The findings from the study will also form the basis for further researches at the district, regional and national levels as a whole.

1.4 Conceptual Framework

A conceptual framework is an analytical tool with several variables and contexts, it is used to make conceptual distinctions and organize ideas. Strong conceptual frameworks capture something real and do this in a way that is easy to remember and apply.

The conceptual framework which will facilitate the operationalization of the study's objectives. From the Figure 1.1, it can be seen that when people are aware and knowledgeable about contraceptive and have positive perceptions about contraceptives in general, they tend to adopt and use these contraceptives than when they lack awareness and have negative perceptions (Awusabo-Asare *et al.*, 2006; Okonofua, 1995; Westhoff, 2001). Similarly, beliefs and cultural practices influence contraceptive usage (Ehlers; 2003; MacPhail *et al.*, 2007). Moreover, Fig. 1.1 clearly shows that socio-demographic variables such as age, religion, culture, economic variables culture, age at sexual debut and perceived susceptibility and severity on pregnancy outcomes all play vital roles in the control and usage of contraceptives (Hagan and Buxton, 2012; Cobb, 2001; Awusabo-Asare *et al.*, 2006 and Okonofua, 1995).

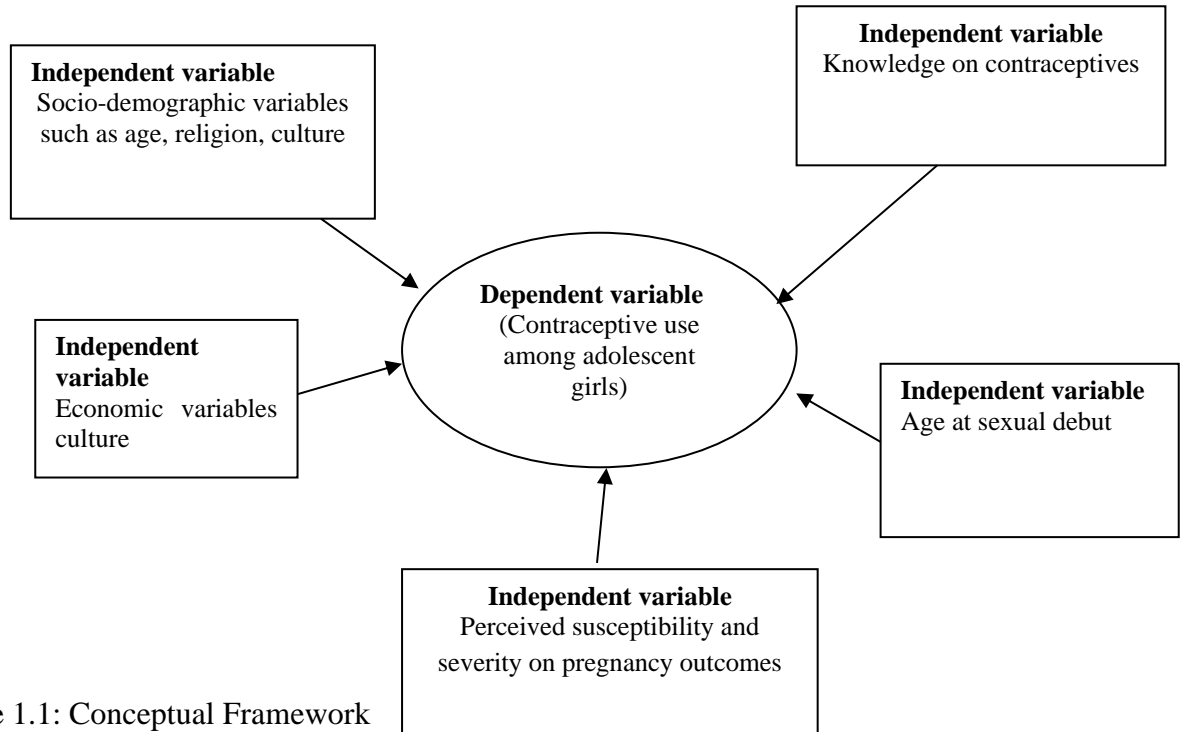


Figure 1.1: Conceptual Framework

Source: Adapted from Azjen and Fishbein (1980)

1.5 Research Question

The study's research questions are:

1. What are the sexual behaviors and practices among female adolescents?
2. What is the level of contraceptive usage among sexually active adolescent?
3. What is the adolescent knowledge and associated factors regarding human sexuality and contraceptives?
4. What are the perceptions and attitude towards contraception among female adolescents?

1.6 General Objective

The general objective of this study is to assess the knowledge and perception of contraceptives usage among adolescent's girls in Dzodze Penyi Senior High School.

1.7 Specific Objectives

The specific objectives of the study are:

1. To assess the sexual behaviors and practices among female adolescents
2. To determine the level of contraceptive usage among sexually active adolescent
3. To assess adolescent knowledge and associated factors regarding human sexuality and contraceptives
4. To identify perceptions and attitude towards contraception among female adolescents

1.8 Profile of Study Area

Dzodze-Penyi Senior High School is situated near Dzodze the capital town of Ketu–North District. It accommodates about 1,000 students. The school runs arts, science and business courses at the secondary level. The town is located near the border between Togo and Ghana and serves as the administrative capital of the Ketu North Municipal which is made up of about twenty (20) villages and towns. It is about 199 kilometers from the national capital Ghana, Accra, and about 87 kilometers from the regional capital, Ho. The inhabitants are mainly Ghanaian who settled after the exodus of the Ewes from Notsie. Farming is the main occupation of the indigenes, whilst the present generation of the young men and women engage in businesses ranging from trading and small manufacturing. The district has a total

household population of about 98,571 with a total number of 26,437 households. The average household size in the district is 3.7 persons. The population of Ketu North District, according to the 2010 Population and Housing Census is 99,913 representing 4.7 percent of the region's total population. Males constitute 46.5 percent and females represent 53.5 percent. Nearly sixty-six percent (65.8%) of the population live in rural areas (GSS, 2004).

About five in ten (46.1%) of the population are either 12 years or above. 36 percent of the population are married. By age 25-29 years, more than half of females (58.7%) are married compared to a little above one-third of males (34.9%). The town shares boundaries with the following communities: to the north with Ave-Dakpa, to the south with Penyi, to the east with Noepe (Ghana – Togo border), and to the west with Ehie.

1.9 Scope of Study

This study focuses exclusively on collecting data from high school students of Dzodze-Penyi in the Volta Region. The school was selected for the study because of easy access to information and access to the students (respondents). This study is therefore limited in the sense that data was collected from only one senior high school in the country. In spite of this obvious limitation, it is the conviction of the study that the findings will shed more light on the knowledge and perception of contraceptives usage among adolescent girls.

1.10 Organization of Report

This study was organized along six main chapters. Chapter one entails the background of the study, the problem statement, the rationale of the study, the conceptual framework, research questions, general objectives, specific objectives, the profile of the study area and the scope of the study. Chapter two reviews the literature on the study's major constructs

while chapter three focuses on the methodological approaches employed in the study and the data analysis and the implications of the findings. Chapter four gives the results and background information while chapter five focuses on the discussion, link research questions, objectives, and the key variables. Whiles chapter six focuses on the summary, conclusions and the recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This section reviews the literature on the study's major constructs and theories such as the definitions of contraceptives, factors affecting contraceptive use, the theory of planned behavior. It also covers the knowledge and perception of contraception, trend in the use of contraception, perception, and use of contraceptives.

2.1 Contraceptives Defined

Contraception may be defined as “the premeditated use of non-natural techniques or other methods to prevent pregnancy because of sexual intercourse” (Protogerou *et al.*, 2013). Contraception or birth control foils pregnancy by meddling with the regular progression of ovulation, fertilization, and implantation (Jemmott *et al.*, 2007). There are different kinds of birth controls that act at different points of the process. Contraception usage has been well known for controlling- population growth (Kiene *et al.*, 2014). Contraceptives according to Muneene (2015), refers to devices, drugs, and agents to prevent conception or pregnancy. It, however, helps women to plan on when they want to have a baby.

In Ghana, however, the erroneous impression has been created that contraception use is meant for couples who are married and have children (Awusabo-Asare *et al.* 2006). For religious and cultural reasons, not much attention is paid to (sex) education for adolescents who are matured or growing and may- engage or be tempted to engage in sexual activities or are sexually active. As such, most often, the sexual behavior of adolescents become one of trial

and error with less education and guidance. This perception about contraception has created the gap between the adolescents and the contraception values (Kiene *et al.*, 2014).

2.2 Types of Contraceptives

There are different types of contraceptives based on the needs of the individual, availability, access, and exposure (Cobbs, 2001). Some contraceptives are hormonal methods like; Oral contraceptives, Depo Provera injections, and Norplant which use medications (hormone) to prevent ovulation.

There are also the barrier methods which work by preventing the sperm from getting to and fertilizing the egg like male condom and female condom, diaphragm, and cervical cap. Condoms help protect sexual partners from STIs (sexually transmitted infections) as well as pregnancies (UNFPA, 2010).

There are also spermicides which kill sperms on contact; Intrauterine devices (IUDs) which are inserted normally into the uterus to prevent the fertilized egg from implanting in the lining of the uterus (Valentine *et al.*, 2001). Although these choices are available, contraceptives use among adolescents is low (UNFPA, 2010).

2.3 Importance of Using Contraceptives

Contraceptive adoption and usage by adolescents ought to be encouraged and indeed driven home among the adolescents because the ramifications of not using contraceptives can be dire and deadly (Builu & Naidoo, 2015). Contraceptives are highly significant because it is a powerful tool used in avoiding unwanted pregnancies, the spread of STDs and the disruptions that come with catching STDs or being pregnant (Herrmannsen, 2016). In effect, using contraceptives have been specially found to be ideal for female adolescents and as pointed out

by Whitaker and Gilliam (2008), making adolescents especially, females to use contraceptives is not a waste of time and resources.

Again, considering that teenage pregnancy affects the adolescent female more than the adolescent male, because while the male can continue with his education, females, on the other hand, are made to drop out of school to take care of their pregnancies (Adetokunbo *et al.*, 2011). Unfortunately, these pregnancies are usually accompanied with issues such as maternal, fetal and neonatal adverse and negative consequences (DiClemente *et al.*, 2001). Moreover, teenage girls are made to suffer the brunt of their pregnancies since they usually lack the economic capacity to take care of their babies. This again results in malnourished children and stunted growth (Whitaker and Gilliam, 2008).

Also, it has been pointed out that STDs potentially can destroy women's fallopian tubes and therefore resulting in serious issues later in life such as infertility, ectopic pregnancy, miscarriages and ultimately, leading to divorces and severe marital and societal issues for women especially (WHO, 2013). Similarly, STDs have been found to cause genital cancers in both men and women, cervical cancer in women and deaths of infants arising from transmission of infections during the course of pregnancies or during childbirths (WHO, 2013).

According to Ajibola *et al.* (2017), globally, unintended pregnancies resulting in abortions and myriad abortion-related complications health challenges. This problem affects public health millions of women worldwide and has been identified as one of the leading causes of maternal morbidities and mortalities. According to (WHO, 2017), about 16 million girls aged 15 -19 and about one million girls less than 15 years of age give birth every year while about three million girls aged 15-19 undergo unsafe abortion yearly.

More so, about 75 million of the estimated 180-200 million pregnancies that occur annually in the world - are- unintended- and- most -of- these- pregnancies occur in adolescents (UNDP, 2003). Peter (2010) in a study conducted amongst in-school adolescents in eight African countries stated that not less than 27.3 % of the respondents had experienced sexual debut before the age of 15.

Contraceptive help couples and individuals realize their basic right to decide freely and responsibly if, when and how many children to have. The growing use of contraceptive methods has resulted in not only improvements in health-related outcomes such as reduced maternal mortality and infant mortality (Ahmed et.al., 2012; Bhutta et. al., 2014; Rutstein & Winter, 2015), but also improvements in schooling and economic outcomes, especially for girls and women (Canning & Schultz, 2012; Schultz & Joshi, 2013). The landmark Programme of Action of the International Conference on Population and Development (ICPD) in 1994 recommended that all countries seek to provide universal access to a full range of safe and reliable family-planning methods by the year 2015 (UN, 1994).

Specific meeting the demand for family planning was detailed in the review and appraisal of the Programme of Action five years later (United Nations, 1999, paragraph 58). In 2010, the General Assembly, noting that gaps still existed in the implementation of different areas of the ICPD Programme of Action, decided to extend the Programme and the key actions for its further implementation beyond 2014, in order to fully meet the Programmer's goals and objectives.

Millennium Development Goal 5 to improve maternal health brought renewed attention to efforts and ensure universal access to reproductive health, though progress by 2015 fell short of the targets set (UN, 2015a). More recent global partnerships that include efforts to expand contraceptive information, counseling and services include Family Planning 2020, which focuses on 69 of the world's poorest countries, and Every Woman Every Child, which has a broader strategy of accelerating improvements in the health of all women, children, and adolescents by 2030.

2.3 Sexual Experience

Globally, adolescents generally begin sexual activities before marriage (WHO, 2012). In the United States of America, nearly half of all high school students report ever having had sexual intercourse in 2011, a decline from 54 Digitized by UCC, Library 17 percent in 1991 (Gribble, 2010; Agudelo & Belizan, 2000). Males are slightly more likely than females, to report having had sex. There are racial/ethnic differences in sexual activity rates among adolescents. Black high school students are more likely to have had intercourse compared to white and Hispanic students. According to Blanc *et al.*, (2012), more black high school students and Latino students initiate sex before the age of 13 compared to white students. Nelson and Howitt (2013) revealed that among sexually experienced adolescents, majority of women had their first intercourse with a steady boyfriend with marriage in mind, while a significant proportion of males had their first sexual experience with a commercial sex worker or casual friend.

In Malaysia, Goicolea, Wulff, Sebastian, and Ohman (2010) in a study on the reproductive health of adolescents (aged 13-19) revealed that 40 percent of respondents had begun dating from the age of thirteen years. By the age of eighteen, eighty-four percent of adolescents had started holding hands, eighty-five percent kissing and eighty-three percent petting. Of these,

eighteen percent had first sexual contact between 15 and 18 years. In Argentina, it is the belief that male sexual urges are uncontrollable and explains the greater need that men have for casual sexual relationship (Goicolea *et al.*, 2010).

In India, according to Moore *et al.* (2014), it is reported that there is a rising incidence of pre-marital sex of up to 28 percent among female and male adolescents. The study also revealed that young men are under pressure to perform and prove their virility. In Canada, adolescents are reported to be sexually active, with sexual experience at an early age (Ball & Moore, 2008). In the Canadian Youth and Aids National study conducted Digitized by UCC, Library 18 among grade 7, 9 and 11, and first-year college and university students, 26 percent of grade 9 and slightly less than 50 percent of grade 11 students had had sexual intercourse at least once.

By age 18, at least 80 percent of sub-Saharan African adolescents are sexually experienced (Blanc *et al.*, 2012). Seventy-three percent of all Liberian adolescents ages 15 to 18 have had intercourse, as have 53 percent of Nigerian, 49 percent of Ugandan, and 32 percent of Botswana girls. In many sub-Saharan countries, first sexual activity takes place before marriage. Among Kenyan women, the median age at first marriage is 18.8 years, while the median age of first intercourse is 16.8 years. Data also show that four percent of Kenyan men are married by age 18, although 64 percent report sexual intercourse before that age. Factors that influence the median age at first intercourse in Kenya include residence and education. In Kenya, rural young women engage in intercourse earlier than urban women, and the median age at first intercourse for women with no education is three years earlier than women with at least a secondary school education.

In Ghana, Asseidu (2016) states that according to the 2014 Ghana Demographic and Health Survey, adolescents generally begin their sexual activity in their middle to late teens and the median age for first sexual intercourse being 18.4 years for females and 19.8 years for males (GSS, 2015). It further states that among the 25 to 59 aged women many had pre-marital sex as adolescents.

2.4 The Theory of Planned Behaviour (TPB)

The Theory of Planned Behavior (TPB) was adopted for this study. This theory comes from the theory of reasoned action which holds that peoples' decisions to follow a particular course of action or behave in a certain way is dependent on the outcomes people expect to occur as a result of taking that course of action or behavior (Fishbein & Ajzen, 1967).

The theory of planned behavior is based on the cognitive approach and it holds that the behaviours and actions adopted and exhibited by individuals are largely influenced by their attitudes and beliefs (Kiene *et al.* 2014). This theory was first proposed by Ajzen (1985). This theory holds that cognitive determinant of people or individuals in their intentions and that intention illustrates the efforts and work people plan to use so as to perform or execute the behavior in question. According to Ajzen (1991/1985), intentions of people entail three motivational factors which are peoples 'attitude, their subjective norms, and theory perceived behavioural control.

This theory, therefore, suggests that people are directed and influenced to take certain decisions or adopt certain behaviours based on their beliefs. This theory, therefore, implies that knowledge and facts may not be necessarily important to people when taking certain decisions (Protogerou *et al.* 2013). The theory of planned behavior was therefore used to investigate and understand the knowledge and perceptions of female adolescent senior high

school students because it has been established as being useful in a study of this nature (Protogerou *et al.* 2013; Kiene *et al.* 2014; Jemmott *et al.* 2007). This theory was employed in exploring female adolescent senior high school students 'perceptions, knowledge, beliefs, and attitudes towards the adoption and usage of contraceptives.

Researchers such as Kiene *et al.* (2014) and Jemmott *et al.* (2007) have used the theory of planned behavior to investigate health-associated issues among adolescents in South Africa. For instance, Kiene *et al.* (2014) used the theory of planned behavior to investigate factors motivating the use of contraceptives among Ugandan women found in rural areas. It was established by the authors that the theory of planned behavior predicted about 26% of the variance in the usage of contraceptives by rural women in Uganda. However, this theory has not been explored in relation to female adolescents in Ghana.

2.5 Factors Influencing Contraceptive Use

This section reviews the literature on the factors that influence the adoption and usage of contraceptives.

2.5.1 Knowledge and Contraceptives

The theory of reasoned action regard knowledge as a manifestation of the basic and fundamental attitudes towards behavior and this, therefore, implies that individual's 'beliefs about contraceptive use show the kind of information people have about contraceptives ((Wallace, 2002). As pointed out by Wallace (2002), the behavior of individuals is directed by the knowledge of the behavior and their willingness to perform a certain action. This in effect means that to use contraceptives, people will usually need ample information for them to compare and contrast the various contraceptives methods available with respect to

comfortability, safety, security, affordability and even availability (Somba *et al.* 2014). This again means that one contraceptive method will be chosen over another when users have knowledge about their efficacy in terms of the prevention of pregnancies and STDs (Wallace, 2002).

It has however been found that having enough information about contraceptives does not guarantee that people will use them. Typical sources of knowledge of contraceptives are peers, families, friends, information obtained from mass media, social media, health facilities and schools (Adhikari and Tamang, 2009). A study by Lince-Deroche *et al.* (2016) found that about 93% of all South African women are aware and knowledgeable about contraceptives while out of this figure, just about 70% have used contraceptives before.

Again, authors such as Adhikari and Tamang (2009) and Somba *et al.* (2014) have all found that students tend to be more knowledgeable about contraceptives and their ability to prevent pregnancies and sexually transmitted diseases (STDs). What is worrying is that in spite of the awareness and knowledge about contraceptives, their adoption, and use can be low and therefore indicating that knowledge alone a sufficient factor that influences contraceptive use (Appiah-Agyekum and Kayi, 2013; Raselekoane *et al.* 2016).

Various studies conducted in Ghana show that the awareness of young people about contraceptives and where to obtain them is high. Results from the 1998 Ghana Youth Reproductive Health Survey (GYRHS) indicated that 76% of female and 88% of males all aged between 15 and 19 years were aware of at least one modern family planning method (Tweedie & Witte (2000). Among the 12–14 year-olds, 33% of females and 6% of males knew of at least one modern family planning method. The condom was the most reported method known by 77% and 66% of males and females respectively. In the 1998 Ghana

Demographic and Health Survey (GDHS), the proportion of both males and females aged 15–19 who knew at least one modern method was over 80%. However, adolescents’ knowledge of some specific methods is superficial.

For example, data from the 1998 GYRHS show that while 49% of females and 25% of males all aged between 12 and 24 years knew of the pill, 21% of females and 46% of males who knew the method did not know that it has to be taken daily for it to be effective (Ghana Statistical Service, 1994 & 1999). Despite the general recognition of the importance of meeting the reproductive health needs of young people and the high level of awareness among adolescents of modern methods of contraception, contraceptive use among them is generally low. Thirteen percent of all 15–19-year-old females and 35% of married females had ever used a modern family planning method on the basis of the 1998 GDHS findings.

2.5.2 Social Restrictions on Sexual Activity

Sexual activities are usually discouraged among the youth and the pressure from social restrictions on sex leads to the youth not coming out to show they are sexually active (Mfono, 1998). As pointed out by Adhikari and Tamang (2009), social beliefs, expectations and cultural practices guides when sexual intercourse is allowed and as such, the youth who are sexually active to avoid censorship, ridicule, shame and embarrassment would rather hide by not using contraceptives. This is because going out there to procure contraceptives may lead to prying eyes and people questioning their motives. To avoid all these questions, the youth just go on to have sexual intercourse without using contraceptives (Askun and Ataca, 2007). Studies by authors such as Nsubuga (2016) and Askun and Ataca (2007) have revealed that most societies in Africa frown on people discussing sex and its related activities openly and

even issues of contraceptives are not openly discussed. Some societies see discussions on sex-related activities as promoting sexual promiscuity among the youth. In fact, the social restrictions placed on the engagement of sexual activities by the youth rather promotes risky sex practices since these sexually active youth secretly engage in sex but not openly (Askun and Ataca, 2007).

2.5.3 The Influence of Religious Beliefs on Contraceptives Use

There is a nexus between religious beliefs and contraceptives use. This is because religious beliefs have strong effects on people and their values. These individuals who are deeply religious will behave in ways and manner that is prescribed by their faith (White, 1999). White (1999) has found that religious organizations, their leaders and systems forbid their followers from using contraceptives. The Roman Catholic Church for instance has in its Directive 52 that Catholic health systems and facilities must not promote contraceptive use except using natural means of contraception in marriage (Hubacher *et al.* 1996). According to Hubacher *et al.* (1996), individuals naturally are sexually active but their religious beliefs control their sexual urges.

A study by Nsubuga *et al.* (2016) established that University students in Uganda who are members of Evangelical and Adventist organizations do not use contraceptives because it is perceived as religiously wrong. The findings of the authors resonates with what the theory of planned behavior holds to the effect that individual's beliefs about certain behaviours such as contraceptive use illustrate knowledge and information individuals have about contraceptive use. Again, Islam prohibits the use of contraceptives and has likened contraceptive use to killing life (Keefe, 2006).

2.5.4 Access to Contraceptive Services

Even though access to contraceptives usually is not an issue, it becomes a challenge when health care providers create barriers to deny the youth and when disapproval from key people such as friends, family members, and religious leaders forces the youth to avoid accessing contraceptives (Maharaj & Cleland, 2006). This leads to inconsistency in the adoption and usage of contraceptives because the youth will only look for contraceptives if they can easily access them without any disapproval and barriers put in their way (Darroch *et al.*, 2008). As found by Darroch *et al.* (2008), about 38% of respondents reported missing at least one active contraceptive pill because of barriers, disapprovals, and religious beliefs.

2.5.5 Peer Influence and Contraceptive Use

The influence of peers on individuals, especially young people, is well documented (Ajze, 1991; Bjelica, 2008). The influence is so strong that members of a particular group in order to avoid being ridiculed, rejected or kicked out are forced to conform to group norms (Bjelica, 2008). This strong influence of peers has been found to also exist in the use of contraceptives. According to the theory of planned behavior, individuals are put under a lot of pressure to conform and be in tune with significant others and cohorts to such an extent that where the group norm discourages contraceptive use, all members of that group will avoid using contraceptives (Bjelica, 2008). As found by Tabane and Peu (2015), young women in South Africa decide to use or not use contraceptives based on the demands of their peers. Approval or disapproval of contraceptive use and general sexual activities are largely depended on what significant others say.

2.6 Reasons for Low Usage of Contraceptives

Several reasons have been given for the low usage of contraceptives, especially within Sub-Saharan Africa. The main reasons include the following:

2.6.1 Limited capacity of Health Systems

Most health facilities in Sub-Saharan Africa are largely not well-equipped and resourced to provide basic care (Shane *et al.* 2007). Thus, the issue of ARH tends to be seen as not highly important and health workers rather focus on managing diseases and emergencies to the neglect of ARH issues (Westoff, 2001). The obvious lack of resources coupled with trained and experienced adolescent health workers means that much-needed attention is not obtained. Unfortunately, this often results in unwanted pregnancies leading to female students dropping out of school, the contraction of STDs, deaths (especially in the case of HIV/AIDS and Hepatitis B).

2.6.2 Improper Framework of Family Planning

It has been established by Darroch *et al.*, (2008) that poor professionalism and the negative attitude of health workers towards the usage of contraceptives often lead to the releasing of timely, sufficient and accurate information to clients. Sometimes, the acts and actions of health workers create embarrassing moments for clients who never step into these facilities again just to avoid shame and fear (Chilinda *et al.*, 2014). In fact, Bako (1998) and Kistnasamy *et al.*, (2009) found their studies that students in Nigeria and South Africa expressed their preparedness to use emergency contraceptives if only they will not be censured and criticized. For instance, health service providers have been found to have either refused young women access to contraceptives to provide accurate and reliable information about the use of

contraceptives (Wood and Jewkes, 2006). These attitudes and behaviours exhibited by health workers are often influenced by the socio-cultural beliefs and values such as not providing contraceptives to unmarried and young people (Ahanonu, 2014).

2.6.2 Insufficient Knowledge

It has been found by authors such as Cobb (2001) and Awusabo-Asare *et al.* (2006) that most adolescents, strangely enough, lack adequate information, knowledge, and understanding on their own reproductive capabilities. In fact, Awusabo-Asare *et al.* (2006) found in their study that adolescents are usually misinformed about their sexual reproductive health and this misinformation tends to land them in trouble such as pregnancies, and the catching of STDs. Cobb (2001) established that about 60% of adolescents have wrong assumptions about the causes of pregnancies and that some believe that you have to have sex for a number of times before you get pregnant. Others also believe that it is safe to have unprotected sex because they are still young and that it is only adults and married people who get pregnant (Okonofua, 1995; Westoff, 2001).

A study in Kintampo North and South districts in the Brong Ahafo region of Ghana indicated that pregnant adolescents and adolescent mothers were higher than the national average. The maternal mortality ratios in adolescents are usually twice as high as those of women in their twenties. However, in lower- and middle-income countries, maternal mortality can be averaged by 20 and 30 percent through the use of contraceptives. However, access to family planning by adolescents has been bounded by socio-cultural practices (FD) (UNDFPA) 2005.

2.6.3 Contraceptive Use Regarded as Responsibility of Women

The adoption and use of contraceptives have been found to be difficult to implement in Sub-Saharan Africa because contraceptive use is often seen as the prerogative of women (Patel-Kooverjee, 2009). This perception is often seen in the different types of contraceptives designed for women as against those devised for men. Again, most adverts of contraceptive use are often directed at women and therefore creating the impression that it is the responsibility of women to use contraceptives and not men (Bjelica, 2008).

2.6.4 Opposition from Male partners

It has been found by authors such as Hagan and Buxton (2012), Cobb (2001), Awusabo-Asare *et al.* (2006) and Okonofua (1995) that female adolescents often do not have much say in the adoption and usage of contraceptives such as condoms. Instead, it is the male partners who determine and often, male partners oppose the usage of contraceptives with the usual excuse that it is less pleasurable wearing condoms (Cobb, 2001). Considering that female adolescents often are helpless in such relationships and financially depend on their male partners, they usually acquiesce.

According to Ehlers (2003), certain males from certain cultures in Africa tend to view the usage of contraceptives as an issue of masculinity and fertility and to prove their virility and fertility, will not want their female partners to use contraceptives. Again, certain cultures frown on contraceptive use because they believe it encourages promiscuity among women and that women will take advantage of contraceptives to cheat their husbands and partners (MacPhail *et al.* 2007).

A research conducted in the Upper East of Ghana among high school students revealed that the adolescent girls did not believe in themselves or have the strength and courage enough to

negotiate condom use with their sexual partners. They would rather not be stigmatized as bad girls or cheaters by their sexual partners than go get the condoms themselves (Rondoni and Krugu 2009). Another study by Mbunda (2000) in Mung'ong'o (2010) showed that the general level of contraceptive usage was established to be very small (11.8 %) among sexually active teenagers (15-19 years).

2.6.4 Ignorance and Insufficient Sex Education

The use of contraceptives has been challenged by misconceptions about contraceptives. Ignorance and insufficient education on adolescent reproductive health all account for the low adoption and usage of contraceptives by adolescents (Cobb, 2001). For instance, contraceptives are seen as a product that should be used by not all adults but married adults. That is, adolescents are not seen as a possible target for their use, ignoring large number of adolescents who do not only get pregnant but also contract STIs. The study shows that this has been a debate on whether primary school going children should be given condoms or not. Society generally frowns upon teenage pregnancy.

According to WHO, (2014) emphasis on abstinence by parents, guardians, teachers, religious leaders and other opinion shapers has functioned to demonize sex among the adolescents? The impression that sex before marriage is wrong has discouraged sexually active adolescents from seeking contraceptive products and services although such adolescents are sexually active and need them. Again, most of the opinion leaders have publicly denounced contraceptive use among the adolescents further discouraging the use of contraceptives amongst the adolescents (African Population and Health Research Center, 2000).

Furthermore, WHO, (2004), in their study on the contraception issues in the Adolescent Health and Development, stated that adolescent fertility regulation and pregnancy prevention

is one of the most important health care issues of the twenty-first century. It is pointed out that more than 15 million girls between the ages of 15 and 19 give birth every year worldwide, and additional 5 million have abortions. Also, it is found that in Central America, 18% of all births are to women in their teens and in Africa is 23% of all births are to teens. Even supposedly “developed” countries are not insulated from these trends. In the United States, there are nearly 1 million adolescent pregnancies each year with over 450,000 endings in abortion.

2.7 Empirical Studies

Kapiga et al (1992) report that while 60.9% of the pupils in secondary school in the Bagamoyo district, Tanzania, were sexually energetic, however, contraceptive information and usage was very small mainly amongst females. Only 15.4% of the pupils reported having ever used contraceptive methods. In a related study in Kaduna Nigeria, it was revealed that contraceptive use among adolescent hawkers of 15-19 years is relatively low due to lack of knowledge of the foundation of family planning information, cost of contraception, social barriers, and quality of services available.

Awusabo-Asare et al, (2006) on adolescent sexual and reproductive health in Ghana among 12-19 years old showed inadequate knowledge of reproductive health issues by adolescents. These adolescents (78.9% females and 67.0% males) knew that women have fertile days when a pregnancy could occur but only 26.0% knew exactly when this was. 60% of females and 53% of males (15-19) years knew a woman could conceive on her first sexual encounter. More than half of the adolescent (56%) were not cognizant of the fact that pregnancy can occur even after washing herself right after intercourse (Awusabo-Asare and Biddlecom, 2006).

Hagan and Buxton (2012) investigated the knowledge, perception, and usage of contraceptives among adolescent Senior high Schools in the Central Region by using the cross-sectional study. The study contacted three schools in the region and the self-administered survey questionnaire was employed. The sample size of the study was 300. It was revealed by the authors that 244 students are aware of contraceptives and that out of this figure, 21% use contraceptives. It was also found that as high as 82% of the respondents were sexually active even though they do not use contraceptives. The condom was found to be the popular contraceptive methods used by the respondents.

It was also found that 60% of the respondents got to know about contraceptives through the media such as radio and TV while 30% got to know about contraceptives from the friends (peers). It was interesting to find that about 32% of the respondents were of the perception that only married people use contraceptives. It was therefore concluded by the study that there is the need for more intensive and aggressive advocacy and media campaign on Adolescent Reproductive Health (ARH) together with family planning methods before young people become sexually active. The study collected data from both males and females and therefore was not able to determine the actual knowledge and perceptions of female students who are affected negatively especially when they get pregnant. This current study, therefore, focused on the knowledge levels and perceptions of female adolescents to facilitate an in-depth understanding of the ARH issues confronting female adolescents.

CHAPTER 3

METHODOLOGY

3.0 Introduction

This section presents the methods that were used to carry out the study and in achieving the study objectives. These include the study design, study area, study population, methods and procedures for data collection. Sampling, data analysis, and data management, as well as ethical consideration, are also provided.

3.1 Study Area

The study took place in the Volta Region of Ghana, specifically at the Dzodze-Penyi Senior High School in the Ketu-North Municipality. It accommodates about 1,000 students. The school runs the arts, science and business courses. The Dzodze-Penyi Senior High School is situated near Dzodze, a community near the border between Togo and Ghana and serves as the administrative capital of the Ketu-North Municipality. It is about 199 kilometers from the nation capital Ghana, Accra, and about 87 kilometers from the regional capital, Ho. The inhabitants are mainly Ghanaian nationals who settled after the exodus of Ewes from Notsie. Farming is the main occupation of the indigenes, whilst the present generation of the young men and women engage in businesses ranging from trading and small manufacturing. The Municipality is made up of about twenty (20) villages and towns.

3.1.1 Household Size composition and structure

The Municipality has a household population of 98,571 with a total number of 26,437 households. The average household size in the Municipality is 3.7 persons. The population of Ketu North Municipality, according to the 2010 Population and Housing Census is

99,913 representing 4.7 percent of the region's total population. Males constitute 46.5 percent and females represent 53.5 percent. Nearly 65.8% of the population live in rural areas (GSS, 2011).

About five in ten (46.1%) of the population are either 12 years or above. 36 percent of the population are married. By age 25-29 years, more than half of females (58.7%) are married compared to a little above one-third of males (34.9%). The town shares boundaries with the following communities: to the north-Ave-Dakpa; to the south-Penyi; to the east-Noepe (Ghana-Togo border); to the west-Ehie.

3.2 Study Design

A cross-sectional study design was employed with the use of a structured questionnaire to collect quantitative data in understanding the knowledge and perception regarding contraceptive use as well as factors affecting its usage among the adolescent.

3.3 Study Population

The main population of the study who were also the primary respondents was adolescent girls in a second cycle institution. Under this study particularly, adolescent girls in the Dzodze-Penyi Senior High School were the main study population.

3.3.1 Inclusion criteria

- Only girls in the secondary schools were included
- Must be within the age range of 14-19 years
- Must be physically and mentally sound to give independent and accurate information.

3.3.2 Exclusion criteria

- Those below the age of 14 and above the age of 19 years
- Individuals not willing to participate

3.4 Sampling and sample size

The sample was made up of female students in their adolescent ages from Dzodze Penyi Senior High School. With contraceptive usage prevalence of 16% (Himiede W .Wilson et al. 2017) and a confidence level of 95%, a margin of error of 5%. The sample size was calculated using the Cochran's formula ((Bruce et al., 2015), as shown below;

$$n = \frac{z^2 \times pq}{e^2}$$

Where,

n= the required sample size

p= prevalence of contraceptive use

z= score at 95% confidence interval, and

e= margin of error

Therefore,

$$n = \frac{(1.96)^2 \times (0.16) \times (1 - 0.16)}{(0.05)^2} \cong 190$$

A non-response rate of 5 % resulting in about 10 respondents was added to the minimum sample size to get 200 participants.

3.4.1 Sampling Technique

Stratified sampling was used to select the respondents because it gives the representation of specified subgroup or strata. It also provides an estimation of homogeneity. In this study, the students were grouped in five strata representing their program of study. A relative proportion of each group constituted the number that was sampled from each stratum. A simple random sampling technique was then adopted using the class register and their school identification number in selecting the respondents.

3.5 Data Collection Methods and Instrument

Data was collected with the help of research assistants by means of self-administration of the questionnaires to the participants. The questionnaires were administered to the respondents through face-to-face contacts so as to enable the researcher to address any problem that may arise. Participation was by the compliance to the inclusion criteria until the required sample size was obtained. The questionnaire was designed in a very simple language to avoid any ambiguity of respondents' understanding of knowledge and perception on contraceptive, factors affecting contraceptive, trend in the use of contraception. The questionnaire was designed in the English Language since that is the official language use in our schools. However, research assistants were readily available to explain to respondents where there was the need.

Respondents who were 18 years and above were requested to consent either verbally, signing or thumbprint. For those below the 18 years, their class teachers signed the consent form on their behalf. This was because they were in school without parents or guardians so teachers were best adults considered to have authority to give consent on their behalf. Before and

during the interview, respondents who did not understand any item on the questionnaire were allowed to ask questions for clarification. Respondents who feel uncomfortable to continue with the interview for whatever reason were informed to opt out.

3.6 Study Variables

Factors that formed the main variables for the study were the independent and dependent variables. The Independent variable

s were the respondent's socio-demographic variables such as age, sex, class among others.

Dependent variables were their knowledge level and perceptions towards contraceptive use.

3.7 Data Management and processing

3.7.1 Data quality and handling

Data collection were carried out by two research assistants and supervised by the Principal Investigator. When a questionnaire is returned by a respondent, it is checked for errors and incompleteness. When any inconsistency or missing information was detected, they are corrected in the presence of the respondent to ensure accurate and valid data.

3.7.2 Pretesting of questionnaire

The initial questionnaire designed was pretested in the Ketu-South district, a neighboring district with a similar student population and characteristics. A sample number comprising just 5% of the main sample size was used for the pretesting. After the pretesting, some of the questions were taken out whilst some others were also modified for clarity and best understanding in the main study.

3.8 Data Analysis

Data from completed questionnaires were initially entered using Microsoft Excel. The data were then cleaned and imported to STATA statistical software package (*StataCorp.2007. Stata Statistical Software. Release 15. StataCorp LP, College Station, TX, USA*) for further statistical analysis.

Descriptive statistics were used to determine the distributions of selected socio-demographic variables on the respondents. Their knowledge levels were scored and categorized into either 'good' or 'poor' depending on the score obtained by a respondent. The same method was applied to perception to assess either a student had a negative or positive perception towards conceptive use.

To investigate the association between the independent and dependent variables bivariate analyses using Fisher's exact or chi-square test were conducted. The quantification of these associations was measured by logistic regression models. The crude and adjusted odds ratio (AOR) was calculated with its respective confidence interval of 95% for each variable in relation to knowledge and perception. Values of $p < 0.05$ was considered significant.

3.9 Ethical Consideration

Ethical and administrative approvals were respectively obtained from Ensign College Ethical Review Board and Ghana Education Service (GES). Institutional approval was also obtained from the leadership of Dzodze Penyi Senior High School. Signed individual informed consent was obtained from each participant before the questionnaires were administered. This helped assured consent in the collection of data. Participants were informed of the right to opt out of

the study any time they so desired. The respondents were protected from both physical and psychological violence and their responses are kept confidential.

3.10 Assumptions

- It was assumed that respondents were fair and honest throughout the study.
- It was also assumed that respondents gave out accurate and reliable data to the best of their knowledge.
- It was again assumed that respondents were of sound mind and stable mental state.

3.11 Study Limitation

The study was limited by the little time available for the study. This resulted in a limited number of students being covered in the study. Some limitations arose from the respondents, either unwilling to give information or were giving inaccurate or false information deliberately. To further such situation, respondents were reassured of the purpose of this study that it was purely for academic purposes and not any other reasons or used, and that any information given were going to be treated with the utmost confidentiality. It is believed that this assurance let them feel safe and gave accurate and reliable information thereafter.

CHAPTER FOUR

RESULTS

4.0 Introduction

The chapter provides the results and presentation of findings from the study. The results capture how the study objectives were achieved. Firstly, the demographic data begins followed by the various issues which cover the study objectives. In all, 200 valid questionnaires were used for the analysis.

4.1 Demographic profile of respondents

The ages of respondents who were mainly adolescent female students ranged from 13 years to 23 years with the average age being 17.9 ± 1.93 years. More than half (58.5%) of the respondents were within the age group of 17-19 years with the least found among those twenty years and above. Those who have their basic education in a public school were 14% more than those who attended private basic school. Again, respondents in Form 1 formed the majority with less than 30% constituting those who were in Forms 2 and 3. Of the total number of respondents, 114 representing 57 % reported they attended public basic schools. (Table 4.1).

Table 4.1: Demographic profile of respondents

Variable	Category	Frequency (%)
Age	≤16	46(23.0)
	17-19	117 (58.5)
	≥20	37 (18.5)
Basic school attended	Public	114 (57.0)
	Private	86 (43.0)
Department affiliated	General Science	19 (9.5)
	Agriculture	4 (2.0)
	Business	17 (8.5)
	General Arts	76 (38.0)
	Visual Arts	9 (4.5)
	Home Economics	75 (37.5)
Class at school	Form 1	145 (72.5)
	Form 2	15 (7.5)
	Form 3	40 (20.0)

Source: *Field data*

4.2 Sexual behavior and practice among respondents

This study examined the sexual behaviors and sexual practices among the female adolescents of the Dzodze-Penyi Senior High School. Issues covered include sexual intercourse, use of protection and the engagement in masturbation. This was done to give a broad foundation to understanding the major focus of this study, which is contraception use, knowledge and perception. The findings are presented in tables and charts.

Table 4.2: Sexual behavior and practices among respondents

Variable	Category	Frequency (%)
Currently dating	Yes	52 (26.0)
	No	148 (74.0)
Ever dated if currently not dating (n=148)	Yes	8 (5.4)
	No	140 (94.6)
Have ever had sexual intercourse	Yes	54 (27.0)
	No	146 (73.0)
Age of first sexual intercourse (n=54)	12-15 year	8 (14.8)
	16-18 years	29 (53.7)
	19-21 years	11 (20.4)
	22 and above	6 (11.1)
Have ever had unprotected sex (n=54)	Yes	21 (38.9)
	No	33 (61.1)
Number of unintended pregnancy (n=54)	Once	14 (25.9)
	Twice	1 (1.9)
	Three and above	7 (13.0)
	None	32 (59.3)
Means of dealing with unintended rf pregnancy (n=22)	Personal abortion	1 (4.6)
	Medical abortion	5 (22.7)
	Preparing to give birth	9 (40.9)
	None	7 (31.8)

Source: *Field data*

Evidence from Table 4.2 shows that nearly 30% of the respondents are currently dating and among those who are not currently involved, 5.4% had previously dated. Again, it was also found that 27% of the respondents ever had sexual intercourse before. Among them, more than half (54%) had their first sexual intercourse within the age of 16-18 years. Also, almost 40% of sexually active adolescent had engaged in unprotected sex. About 41% have had between one to four unintended pregnancies where 27.3% had resulted in either self-administered abortion or medical abortion.

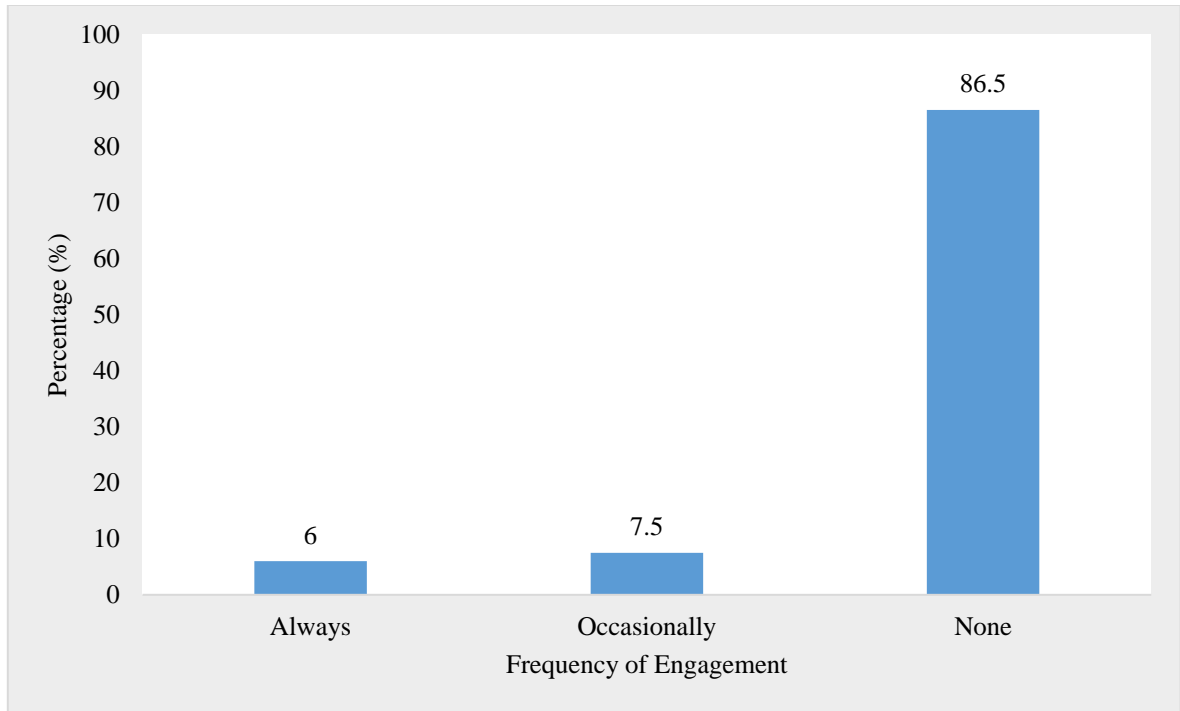


Figure 4.1: *Engagement in Masturbation*

The majority (86.5%) of the study participants admitted not involved in the practice of masturbation (Figure 4.1). However, about 14% of them indicated practicing masturbation, with the frequency being “*Always*” (6%) and “*Occasionally*” (7.5%) respectively.

4.2.1 Relationship between age, dating status, the practice of masturbation and sexual engagement

All the variable shows a significant relationship with sexual engagement (at $p < 0.05$). among the various age group, the majority of those twenty years and above have had sex (46.0%) compared to 11% of those 16 years and below and 27% of those between 17-19 years. Nearly half of those currently dating have had sexual intercourse against 20% of those who are not dating. Also, high proportion of sexual engagement was found among those always practice masturbation (83%), Table 4.3.

Table 4.3: Relationship between selected variables and sexual engagement

Variables	Sexual engagement		P-value
	Yes	No	
Age group			
≤16	5 (10.9)	41 (89.1)	<0.001
17-19	32 (27.4)	85 (72.7)	
≥20	17 (46.0)	20 (54.1)	
Currently dating			
Yes	25 (48.1)	27 (51.9)	<0.001
No	29 (19.6)	119 (80.4)	
Practice masturbation			
Always	10 (83.3)	2 (16.7)	<0.001
Occasionally	7 (46.7)	8 (53.3)	
None	37 (21.4)	136 (78.6)	

P<0.05; percentages are in row format

4.3 Level of contraceptive use among sexually active adolescent

Adolescents who were sexually active were further examined to ascertain the level of contraceptives usage among them; the reasons for the use or non-use of it. Table 4.4 provides the details.

Table 4.4: Contraceptive usage among sexually active respondents

Variable (n=54)	Category	Frequency (%)
Contraceptive use for protection	Yes	40 (74.1)
	No	14 (25.9)
Type of contraception used n=40	Condom	34 (85.0)
	Oral Contraception pills	15 (15.0)
How often contraceptive is used during sex (n=40)	Always	12 (30.0)
	Often	9 (22.5)
	Sometimes	8 (20.0)
	Occasionally	11 (27.5)

Source: *Field data*

Most of the sexually active respondents (74%) indicated that they use contraception in their sexual engagement. Among this number, the most popularly used contraceptive was condom (85%) and oral contraceptive was also found among only 15%. The study did not find the usage of any other contraception aside these two.

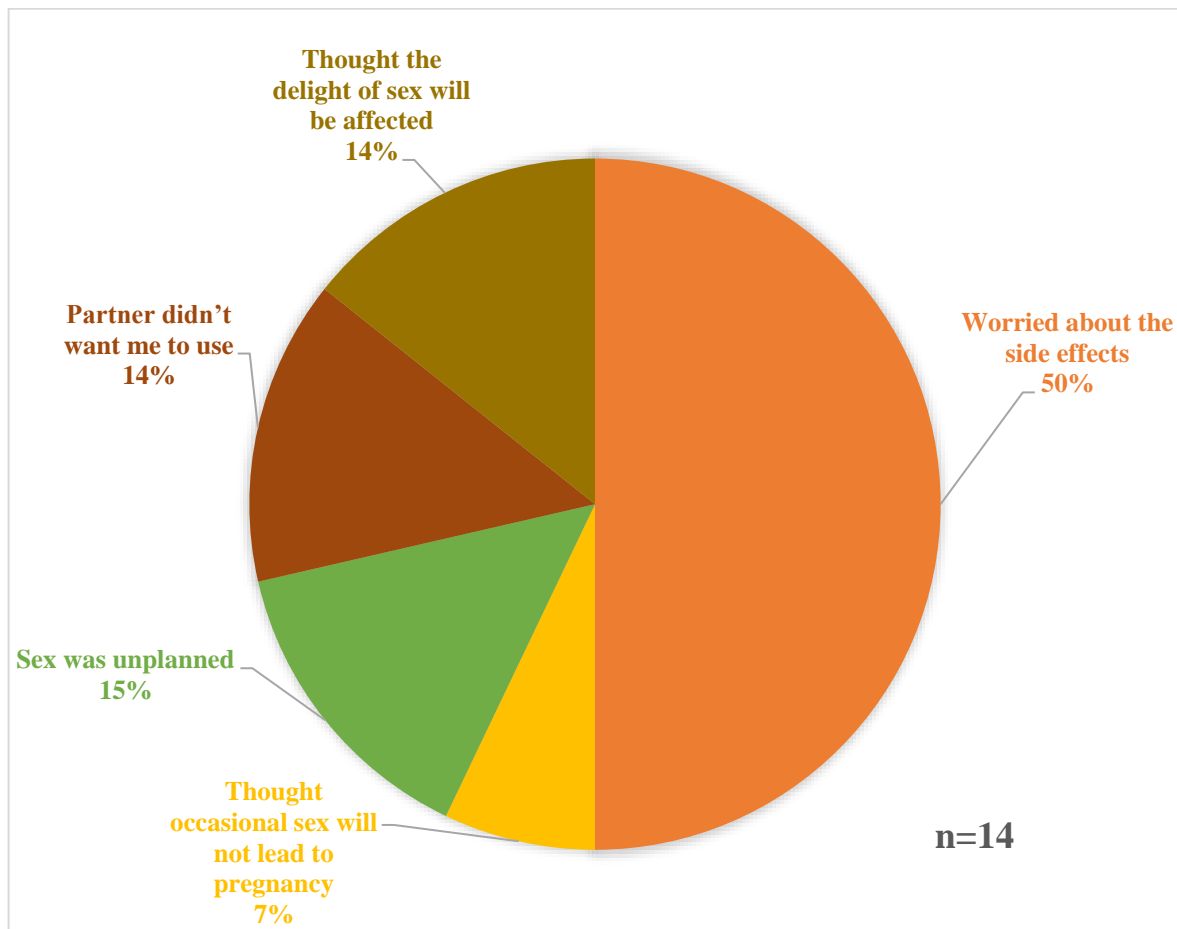


Figure 4.2: Reasons for not using contraceptive during sex

Half of the sexually active adolescents who did use contraceptive indicated that their major reason was the concern of the associated side effects after use. The other half cited reasons such as unplanned sex, partner not willing among others.

4.4 Respondents knowledge on human reproduction and contraception

This section assesses respondents' knowledge on human reproduction and contraception

Table 4.5: General knowledge on human reproduction and contraception

Variable	Category	Frequency (%)
Basic conditions for human pregnancy	Sperm	175 (87.5)
	Ovum	20 (10.0)
	Genital tract	5 (2.5)
Which is the truth about menstruation?	Menstruation comes after ovulation	170 (85.0)
	Menstruation comes with temperature rises	5 (2.5)
	Ovulation occurs on the 14 th day before next menstruation	11 (5.5)
	Ovulation occurs on the 14 th day behind menstruation	4 (2.0)
	Don't know	10 (5.0)
Which are male genitalia	Penis	162 (81.0)
	Prostrate	11 (5.5)
	Testis	8 (4.0)
	Epididymis	14 (7.0)
	Bladder	5 (2.5)
Who is responsible for contraception?	Man	26 (13.0)
	Woman	59 (29.5)
	Both man and woman	108 (54.0)
	None of them	7 (3.5)
Contraception for emergency	Levonorgestrel	35 (17.5)
	Intrauterine device	9 (4.5)
	Vaginal douching	14 (7.0)
	Post no 2	41 (20.5)
	Don't know	101 (50.5)
Period one is most likely to conceive	Menstrual period	42 (21.0)
	A few days before or after menstruation	53 (26.5)
	About 14 days before menstruation	45 (22.6)
	Don't know	60 (30.0)

Table 4.6 provides respondents knowledge on basic human reproduction and contraception.

Areas looked at include conditions for human pregnancy, male genitalia, contraception, and conception.

Most of the respondents (87.5%) cited sperm as the basic conditions for human pregnancy with less than 15% indicating the ovum and the genital tract. Knowledge of respondents on male genitalia shows that over 80% of them mentioned the penis. Other parts of the male genitalia such as the prostate, bladder and the epididymis were only mentioned by 15%.

More than half (54%) of the respondents agreed that both men and women are responsible for contraceptive use. Nearly 30% believed only women should be responsible for contraceptives. Post No.2 and Levonorgestrel were the two most commonly known emergency contraception for women. However, 50% did not know any example of emergency contraception.

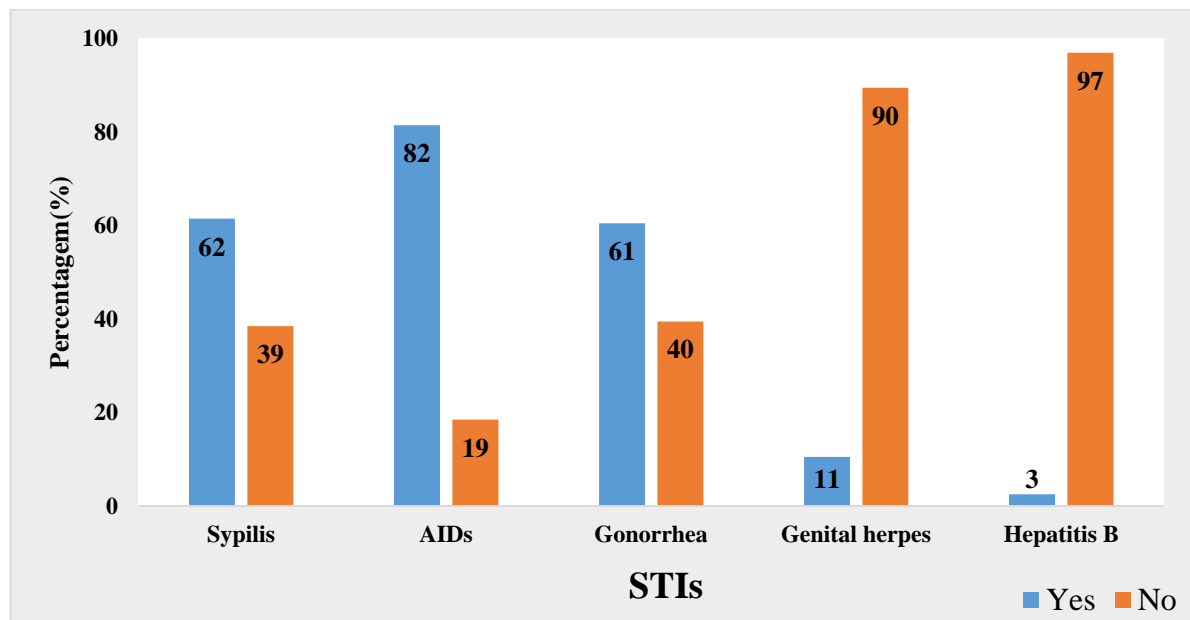


Figure 4.3: Knowledge of sexually transmitted diseases among respondents

From Figure 4.3, respondents displayed their knowledge of sexually transmitted disease. The chart indicates that 62%, 82%, and 61% respectively indicated syphilis, AIDs, and gonorrhea are STIs. The majority did not believe that genital herpes and hepatitis B are STIs. Syphilis

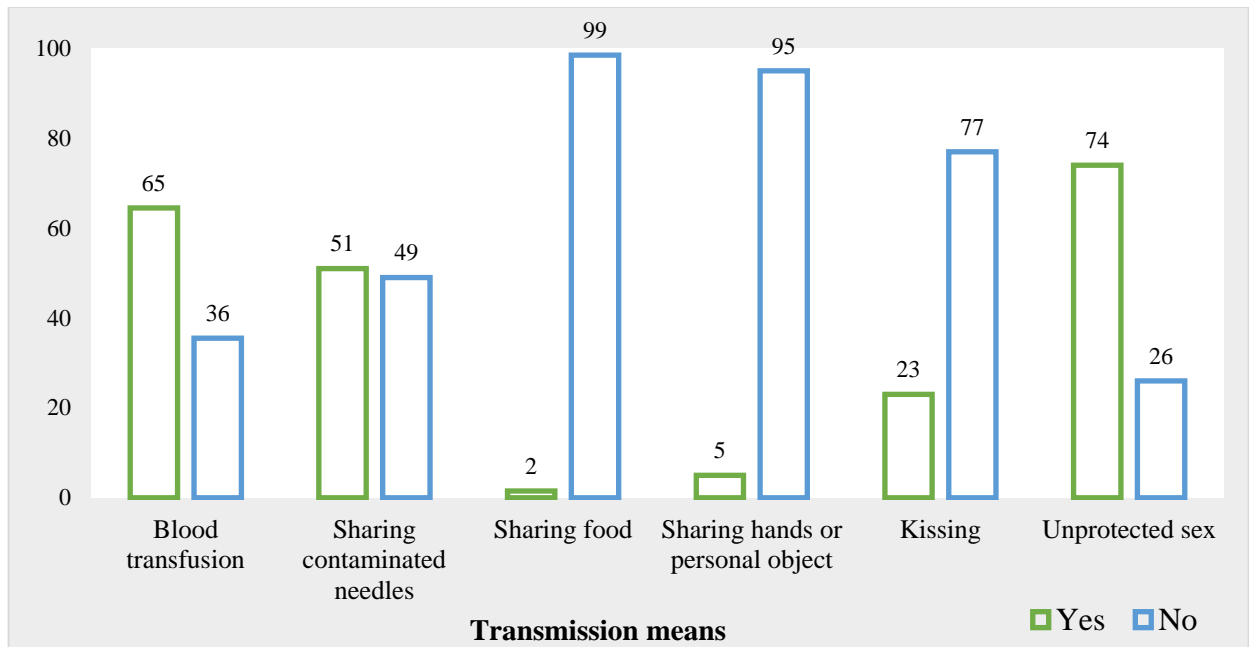


Figure 4.4: Knowledge on the medium of HIV transmission

Figure 4.4 provides information on respondents' knowledge on the mean of transmission of HIV. Blood transfusion was identified by 65% of the respondents as compared to 36%. Also, little above half of the respondents identified the sharing of contaminated needles. Except for 2% of the respondents, no respondents indicated sharing of food as a mean of transmitting HIV. Other means of HIV transmission such as kissing and unprotected sex were mentioned by 23% and 74% respectively.

4.4.1 Source of information on human reproduction and contraception

Respondents were asked to identify the major sources they receive information or education on human reproduction and contraception. Figure 4.5 gives details on the various sources of information for respondents. The sources of information include medical staff, newspaper, classmates, the internet, family, and friends, radio and TV.

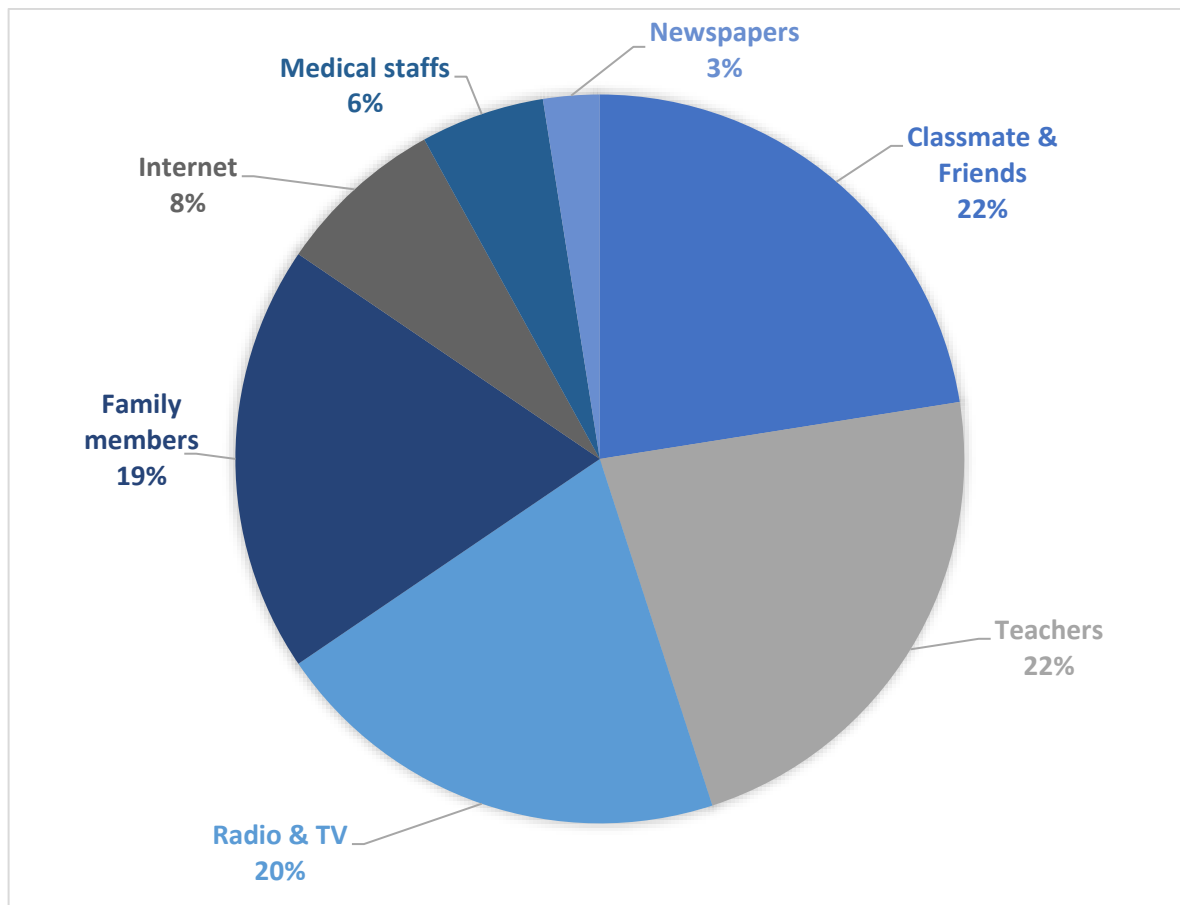


Figure 4.5: Sources on information on human sexuality and contraception

The major means of information access from Figure 4.5 were Radio and TV, classmates, family member, and teachers. Altogether, these four sources constituted about 83% of the respondents' acclaimed means of getting information on human sexuality and contraceptives. Other less mentioned sources of information were the internet, newspaper and from the medical staff.

4.4.2 Factors associated respondents' level of Knowledge

Respondents' level of knowledge on reproduction, sexuality, and conception were assessed using 17 questions items as presented above. Their responses were scored and rated as high or low. A respondent who scored less than 9 points on the 17-item list were classified as having “*low knowledge*” and those who also score 9 or above were also categories as having “*high knowledge*”.

Following the above procedure, it was revealed that 170 representing 85% of the study participants were identified to have had *High* knowledge of reproduction, sexuality, and conception. (See Table 4.6 below.

Table 4.6: The Overall knowledge level

Knowledge Level	Frequency (%)
High	170 (85.0%)
Low	30 (15.0%)
Total	200 (100%)

4.4.3 Bivariate analysis of factors associated with respondents' knowledge level

To ascertain the factors associated with knowledge among the adolescent on sexuality and contraception, a test of association was performed using Fisher's Chi-square test to determine the level of significance. Factors such as age, class at school, department, sexual engagement, and dating status were used as independent variables.

Table 4.7: Results on bivariate analysis of factors associated with participants' knowledge level

Variable	<u>Knowledge level</u>		P-value
	High	Low	
Age			
≤16	36 (78.3)	10 (21.7)	0.03*
17-19	98 (83.8)	19 (16.2)	
≥20	36 (97.3)	1 (2.7)	
Basic school attended			
Public	95 (83.3)	19 (16.7)	0.550
Private	75 (87.2)	11 (12.8)	
Department affiliated			
General Science	15 (79.0)	4 (21.1)	0.024*
Agriculture	2 (50.0)	2 (50.0)	
Business	14 (82.4)	3 (17.7)	
General Arts	62 (82.9)	13 (17.1)	
Visual Arts	6 (66.7)	3 (33.3)	
Home Economics	70 (93.3)	5 (6.7)	
Class at school			
Form 1	122 (84.1)	23 (15.9)	0.520
Form 2	12 (80.0)	3 (20.0)	
Form 3	36 (90.0)	4 (10.0)	
Dating Status			
Dating	47 (90.4)	5 (9.6)	0.262
Not dating	122 (83.1)	25 (16.9)	
Ever had sexual intercourse			
Yes	47 (87.0)	7 (13.0)	0.824
No	122 (84.3)	23 (15.8)	

P<0.05: Assumed significance level; *-Association is significant; Percentage are in rows.

From Table 4.7, only two factors were found to be significantly associated with the level of respondents' knowledge. These two factors were their age group (p=0.03) and the department affiliated (0.024). All the others were not found to have any association with the knowledge level on reproduction, sexuality, and conception.

In Table 4.8 below, a multivariate logistic regression model was further fitted to test for the strength of association of selected variables with respondents' knowledge level at $\alpha < 0.05$.

Table 4.8: Multivariate logistic regression of factors associated with respondent's knowledge level

Variables	P-values	COR (95%CI)	P-value	AOR (95%CI)
Age				
≤16	Ref	1	Ref	1
17-19	0.410	1.43 (0.60-3.38)	0.892	1.07 (0.40-2.86)
≥20	0.011	10.0 (1.09-90.92)	0.129	5.83 (0.60-57.00)
Department affiliated				
General Science	Ref	1	Ref	1
Agriculture	0.241	0.26 (0.02-2.87)	0.259	0.22 (0.02-3.08)
Business	0.799	1.24 (0.23-6.74)	0.931	1.08 (0.19-6.14)
General Arts	0.690	1.29 (0.36-4.56)	0.903	0.92 (0.24-3.55)
Visual Arts	0.491	0.52 (0.09-3.29)	0.509	0.52 (0.07-3.62)
Home Economics	0.058	3.73 (0.86-16.15)	0.159	3.02 (0.65-14.02)
Form				
Form 1	Ref	1	Ref	1
Form 2	0.680	0.75 (0.20-2.90)	0.372	0.51 (0.12-2.23)
Form 3	0.354	1.70 (0.54-5.26)	0.527	1.51 (0.42-5.42)
Basic school attended				
Public	Ref	1	Ref	1
Private	0.448	1.36 (0.61-3.05)	0.197	1.83 (0.73-4.57)
Had sex before				
No	Ref	1	Ref	1
Yes	0.625	1.80 (0.32-2.00)	0.552	1.43 (0.44-4.58)
Had sexual impulse				
None	Ref	1	Ref	1
Always	0.196	2.46 (0.60-10.15)	0.286	0.39 (0.07-2.18)
Occasionally	0.623	1.50 (0.30-7.62)	0.446	0.63 (0.19-2.07)

P < 0.05: Assumed significance level; CI: Confidence interval; AOR: Adjusted Odds ratio; COR: Crude odds ratio

Although there exists a higher odds ratio for both crude and adjusted odds ratio for age, no significant association was found with the adjusted odds ratio for age. This is because the p-value for the adjusted age group was greater than the assumed level of $p < 0.05$. Compared to

those below the age of 17 years, adolescent older than 20 years had almost 6 times higher odds to have high knowledge on contraceptive and human reproduction, holding all the other covariates constant, however, this was not significant. Also, with reference to those from the General Science department, respondents from the Home Economics department also has 3 times higher odds of having good knowledge of contraceptives (p-value=0.159; AOR:3.2; 95% CI: 0.65-14.00). Respondents from the Agricultural Science department and Visual Arts department, however, were respectively 78% and 48% less likely to have good knowledge of contraceptive.

Additionally, with reference to those who had their basic school education in public schools, those who went to private schools were 1.8 times more likely to have a good knowledge of contraception and human sexuality, but no significant association was found (p=0.197, AOR:1.83; 95%CI: 0.73-4.57). The adjusted odds ratio also showed that respondents who have had sexual intercourse before the study had 1.4 times higher odds of having good knowledge compared to those who had not (p-value=0.552).

4.5 Attitudes perceptions towards sexuality and contraception

This section provides finding on respondent's attitudes and perceptions towards human sexuality and contraception. The results are provided in tables and figures as follows:

Table 4.9: Attitudes and perceptions towards sexuality and contraceptive use

Variable	Category	Frequency (%)
Impact health after abortion on women physical and mental	Not at all	35 (17.5)
	Slightly	26 (13.0)
	Serious	118 (59.0)
	Uncertain	21 (10.5)
Sex education should be taught in school	Yes	186 (93.0)
	No	6 (3.0)
	Don't know	8 (4.0)
Perception about chastity	Important for females but not for males	25 (12.5)
	It is important for both males and females	164 (82.0)
	It is not important for both males and females	4 (2.0)
	Don't know	7 (3.5)
Attitude towards premarital sexual behavior	Don't agree with premarital sex	150 (75.0)
	If I have a boyfriend, I can accept	4 (2.0)
	If I am ready to get married to him, I can accept	32 (16.0)
	No matter what, if I have a feeling for him, I can accept	6 (3.0)
	Don't know	8 (4.0)
Is masturbation normal?	Yes	45 (22.5)
	No	155 (77.5)
Consideration for choosing conceptive methods	Its effectiveness	26 (13.0)
	Ones feeling of using conceptive methods	19 (9.5)
	Its cost	9 (4.5)
	The convenience of getting it	8 (4.0)
	How safe it is	138 (69.0)

Source: *Field data, 2019*

Almost all the respondents (93.0%) agreed that sex education should be taught in schools and 59% were also of the view that abortion could seriously have an impact on the physical and mental health of the woman. Also, most of the respondents (75%) do not agree with involvement in premarital sex. Also, 80% had the perception that masturbation is not normal (Table 4.9).

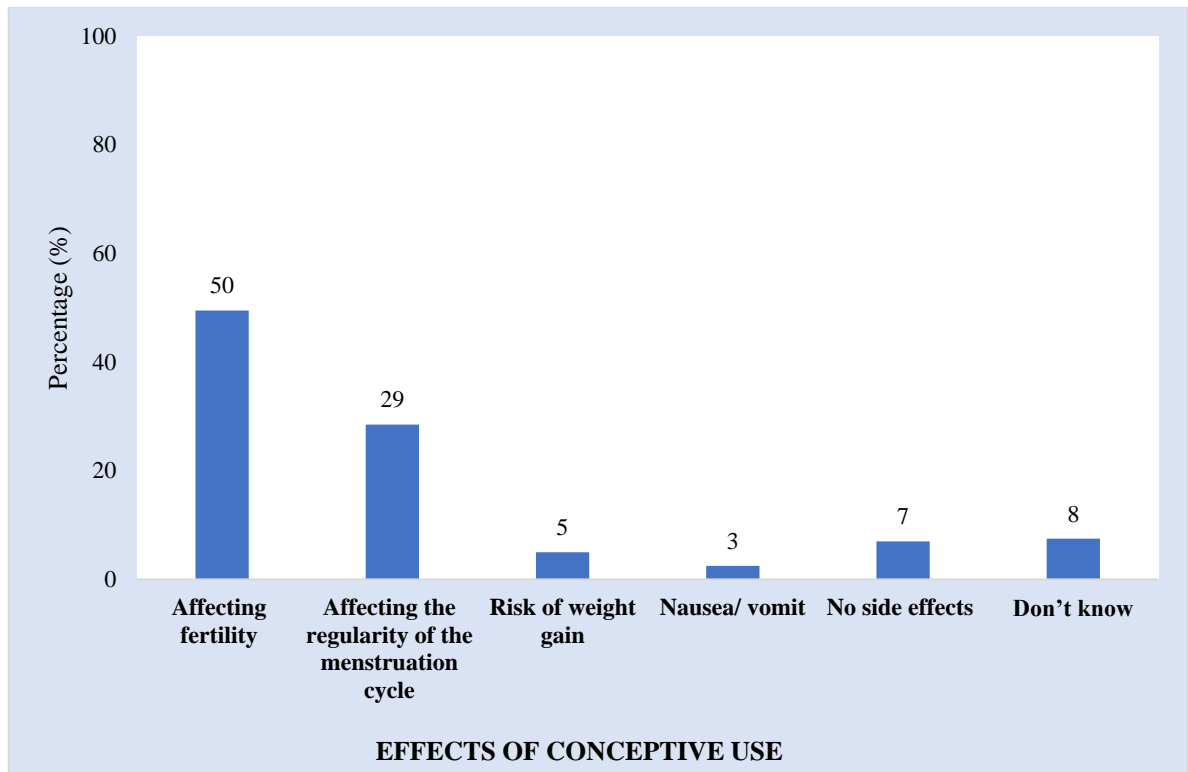


Figure 4.6: Respondent's perceptions on the effects of contraceptive use.

The major perception respondents held about contraceptive use was that it affects fertility. This was the view expressed by about 50% of the study participants. Another major perception by about 29% of the respondents was that it affects the regularity of the menstrual cycle. See Figure 4.6.

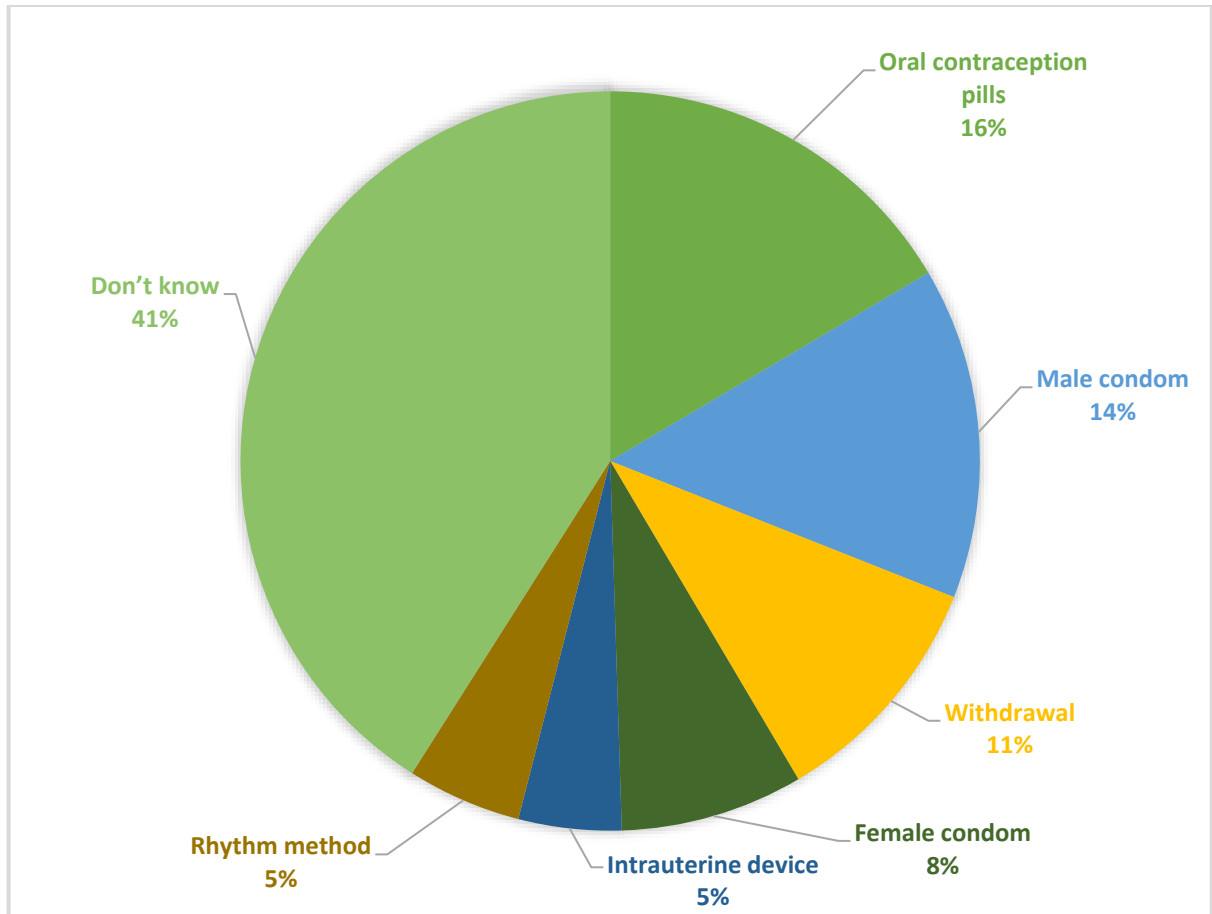


Figure 4.7: Opinions on the type of contraceptive suitable for High School students

Generally, most of the respondents did not hold any idea about the type of contraceptive suitable for High School students. For those who had opinions, oral contraceptive and male condoms were most mentioned (16 and 14% respectively). See Figure 4.7 above.

CHAPTER FIVE

5.0 DISCUSSIONS

5.1 Introduction

The purpose of this study was to examine the knowledge and perceptions regarding contraceptive usage amongst adolescent girls in Dzodze-Penyi Senior High School in the Volta Region of Ghana. The previous chapter of this report presented the results of the study. This chapter provides discussions on the findings from the study in relation to other previous studies.

5.2 Demographic profile of respondents

This study found the average age of respondents to be 18 years with the majority of them within the age group of 17-19 years (56%). This corresponds with the standard age group of senior high school students and adolescents within the general population as reported by the 2010 Household and Population Census of Ghana (GSS, 2011). Again, as found in this study, a study conducted in Calabar, Nigeria on the knowledge, practice, and perception of contraception by literate adolescent, reported similar age range and mean age. That is, the age range was 16 to 19 years, with a mean age of 17.6 years (Abeshi, Uji, Njoku & Emechebe, 2017). Several previous studies among adolescent have reported similar age range and mean (Kennedy *et al.*, 2013; WHO/UNFPA, 2009).

Subject areas where students were recruited for the study included the General Science, Agricultural, Business, General Arts, Visual Arts and Home Economics with the General Arts and Home Economics students forming the majority (76%). Also, this study recruited

students from all the three classes mainly Form One, Two and Three. In Ghana and in some part of African, Senior High School is usually three years and made of three main stages (that is, first year to third year) (GES, 2008).

5.3 Sexual behavior and practice among respondents

In this study, participants were examined to determine their sexual behavior and sexual practice. It was found that only 26% of the students were dating at the time of the study and before the age 20years, meanwhile among those who were not dating, 5.7% had dated before. Statistics from Ghana and other parts of Africa such as Nigeria and Kenya show that sexual or opposite sex relations start early especially in girls than boys (Ngilangwa *et al.*, 2016; Ayinne, 2017; Kiragu & Zabin, 1995). Although this current study found a lower proportion of the female adolescent in sexual relationships, this was not consistent with other previous studies done in South Africa and Tanzania. In the Thulamela Municipality, Limpopo Province of South Africa, more than half of the girls studied in the secondary schools were in sexual relationships (Ramathuba *et al.*, 2012). Also, among female students in the Kilimanjaro region in Tanzania, more than half were found in opposite-sex relationships (Mussa, Msuya & Mahande, 2016).

Sexual practice or having been engaged in sexual intercourse before was found to be 27% of the total female students studied. This implies that the majority of 73% of these students had never engaged in any sexual acts before. The exact proportion of 27% sexually active female students were found in a study entitled “*Contraceptive Use Among High School Students in Kenya*” (Kiragu & Zabin 2005). On the contrary, Mussa, Msuya & Mahande, (2016), reported that in Tanzania 54% of female adolescent were sexually active.

Unprotected sexual practice forms part of risky sexual behavior because the person stands the chance of unintended pregnancy or contracting sexually transmitted diseases such as HIV/AIDS, gonorrhoea, syphilis among others. In this current study, 39% of sexually active respondents reported having had unprotected sex before and 29% had at least one unintended pregnancy. In an earlier study in Ghana, Darko (2016), found that almost all sexually active respondents indicated using a form of protection during sex. Similar to what was found in this current study, a study conducted among adolescent girls in Hai District, northern Tanzania, reported that more than 50% of the girls had ever engaged in unprotected sex (Dangat & Njau 2013).

Test of relationship in this study showed that students' age group, dating status and the practice of masturbation were significantly associated with engaging in sexual intercourse. As indicated by several other studies, students were in opposite relationships and older students were more likely to have engaged in sexual intercourse (Mussa, Msuya & Mahande, 2016; Ryan, 2007; Simoni & Bauldry, 2018).

5.4 Level of contraceptive use among sexually active adolescent

Contraceptive use among female students was one of the main study areas of this present study. It was found that only 29% of the participants had used contraception. Similarly, in Calabar, Nigeria, only 26% were found to have used contraception before (Etenikang, Uji & Njoku, 2017) and in Maharashtra, India, contraception use was reported to be 28% of the sexually active adolescent in school.

The most common type of contraception found as used by the respondents was the male condom. The male condom has been reported by several other studies as the most used and

preferred contraceptive method in Africa (Elkalmi *et al.*, 2015; Nsubuga, *et al.*, 2016). Studies have made it known that because the male condoms are easily accessible and cheap or affordable for the adolescent (Akani *et al.*, 2008; Mussa *et al.*, 2016).

The various reasons found during this study as the perceived reasons for not always using contraception by the adolescent were fear of side effect and the dislike by sexual partners. There have been a lot of misconceptions surrounding the use of modern contraception and one of them is side effects (Tayo *et al.*, 2011). People have attributed several side effects to the use of contraception and this has been found as some of the main reasons why people do not use contraception (Hogmark *et al.*, 2013). This has been confirmed by the findings from this study. There is also the believe that, contraception such as condoms reduces the pleasure from a sexual encounter and this also contributes to some extent the low patronage among people (Chimah *et al.*, 2016).

5.5 Respondents knowledge of human reproduction and contraception

The knowledge level of the adolescents on human reproduction and contraceptives largely influence their attitudes and practices of contraceptive use (Ryan, 2007). In this study, it was found that the students had an impressive knowledge of human reproduction issues and also on contraception. The majority (over 80%) could identify the basic conditions for human pregnancy and also main organs forming the male genitalia. Similarly, in India, Hogmark *et al.* (2013), found a higher level of knowledge among the respondents. A study in Kenya was not consistent with this current study, that less than half were found to have high knowledge (Kiragu & Zabin, 2005)

Also, this study found that the respondents had a high knowledge on when a woman is likely to get pregnant and on menstruation. However, knowledge of emergency contraceptive was fairly poor as only 38% could identify some brands of emergency contraceptives available on the market.

This study also assessed the knowledge level of female adolescents on sexually transmitted infections (STIs). The most widely known STIs identified by the respondents included syphilis (62%), HIV/AIDs (82%) and Gonorrhoea (61%). High knowledge of STIs was largely found in several other studies (Mussa *et al.*, 2018).

Knowledge of respondents on the means of HIV transmission also showed that adolescent studied in this current study had good knowledge on means of HIV transmission. Blood transfusion, sharing of contaminated needles and unprotected sex were some of the common means know by over 50% of the respondents. Again, almost all the respondents were able to identify that things such as sharing of food or shaking hands with an infected person could not lead to HIV infection. Studies have that knowledge on HIV had increased over the years among adolescent and the general population (Hogmark *et al.*, 2013). Generally, in this study over 80% of the adolescents studied had good knowledge on contraceptives and human sexuality and reproduction.

Factors such as age and the program studied at school were found to be significantly associated with knowledge level. In a multivariate analysis, this study found that respondents who were 20 years and above were 7 times more likely to have a good knowledge compared to those below 17 years old. Similarly, in Nigeria and Kenya, students age and the subject of study were found to be associated with the knowledge level (Tayo *et al.*, 2011; Kiragu & Zabin, 1995).

5.6 Attitudes and perceptions towards sexuality and contraception

This present study examined the attitudes and perceptions of the respondents regarding contraceptive use, and sexual behavior and made some interesting revelations. Almost all of the respondents believed that sex education should be taught in schools. Sex education is argued to be important to give the adolescent the essential information and knowledge on sex, pregnancy and sexuality transmitted infections among others (Hogmark et al., 2013).

This study also found that respondents believed chastity or the absence from sexual engagement was important for both males and females. Regarding their attitudes towards premarital sex, the majority (75%) did not agree with premarital sex. Premarital sex is frowned upon in most cultures in Africa (Opundo 1998; Ayinne, 2017) and this has reflected in this study.

Among the factors that people consider before choosing a contraceptive method, this study found that most of the adolescents regard the safety of any contraceptive before choosing it. On their perception of contraceptives, the study found that half of the respondents hold the view that contraceptives usage could affect their fertility in the future. Similar perceptions regarding contraception use were found in Tanzania, Uganda, and Kenya, where students avoid contraceptive usage because they fear that it might affect their fertility in future (Kiragu & Zabin, 1995; Nsubuga et al., 2016; Opundo, 1998). Also in Malaysia, Elkalmi *et al.*, (2015), reported how safety respondents regarded a contraceptive method influenced their decisions to use.

CHAPTER SIX

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusion

The study found that regarding the sexual behavior and practices of the adolescent, only few were in sexual relationships. Also, almost 27% have ever had sexual intercourse before the age of 20 years and among them, 39% had unprotected sex. Nearly half of sexually active adolescents have had unintended pregnancies and abortions which were not medically administered. The practice of masturbation, age and dating were significantly associated with engaging in sexual intercourse.

Contraceptive usage was high among sexually active adolescents because 74% of them had used any of the forms of contraceptive before. Condoms were the commonly used contraceptive among the adolescent followed by oral contraceptive pills.

The adolescent exhibited good knowledge on contraception and other human sexuality issues. They showed good knowledge on pregnancy, menstruation, reproductive organs, STIs and HIV transmission, however, most of them did not know the various examples or brands of emergency contraceptives on the market. Overall, 85% of them showed a high knowledge level and age and department of affiliation were significant factors associated with knowledge level.

It was also found that the majority of the adolescent considers chastity or abstinence from sex as a virtue for both boys and girls. They also regarded masturbation as not a normal practice.

6.2 Recommendations

Based on the findings from this study, the following recommendations are made and directed to the appropriate authority.

To the District Health authority

- The district health workers should intensify their education and awareness on contraceptives to the schools. Although the knowledge level was high, most of them showed low knowledge of emergency contraceptives.
- Since some of the adolescents were found to be involved in active sexual relationships, health workers should focus their attention and services to teaching the student on the risk factors associated with sexual relationships.
- The health directorate if possible should make contraceptive especially condoms and emergency pills available to the students to avoid unwanted or unintended pregnancies.
- Also, awareness is needed dangers of unsafe abortion practices since some of the students admitted having an abortion and not all of them used medical means.

To the School authority

- Sex education should be included in the school curriculum to give the students the needed information to make good life choices.
- The school authority should institute an adolescent health unit or liaise with the health authority to provide them with a regular adolescent health service.

- Teachers and authorities should be open with the adolescents and discuss with them issues regarding sex relationships and pregnancy.

Recommendation for further studies

- Future studies should involve male adolescents so the comparison can be made between sexual behavior and contraceptive use among the two sexes.
- Also, a qualitative or mixed method is recommended so that an in-depth investigation can be made to understand the contextual foundation to adolescent use of contraceptive and associated factors.

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APPENDICES

Appendix 1: Informed Consent

Dear Respondent,

I ama post graduate student pursuing a Master in Public Health degree at Ensign College of Public Health, Kpong. I am undertaking a student research on the topic “*Knowledge and Perception of Contraceptive usage among Adolescents Girls: A case study at Dzodze Penyi Senior High School*”. I/we request you kindly to participate in this survey which is voluntary and involves no risk to you. The information given is confidential and will be useful in improving the knowledge on contraceptive usage in the school. The questionnaire/interview will take about 20-30 minutes to fill.

Do you agree to participate?

Yes No

Date...../...../2018

Signature.....

Appendix 2: Questionnaire

Questionnaire on Knowledge and perception of contraception usage among adolescent girls at Dodze-Penyi Senior High School,

Questionnaire #.....

Date.....

PART ONE (A) –Basic information

A1. Birth (year/month/day).....

A2. Which basic school did you attend? 1. Public 2. Private

A3. Which department are you? 1. Gen. Sci. 2. Agric. 3. Bus. 4. Gen. Arts. 5. Visual Arts.
6. Home Econs.

A 4. What Form are you now? 1. Form 1 2. Form 2 3. Form 3

A5. Do you currently have a boyfriend?1. Yes 2. No

A 6. If **NO**, have you ever had a boyfriend?1. Yes 2. No

PARTN TWO (B) (Knowledge and Attitude)

B1. What are the basic conditions for human pregnancy? (*Choose all that apply*)

- 1. Sperm 2. Ovum 3. Genital tract 4. Uterus

B2. Which of the following is true about menstruation?

- 1. Menstruation comes after ovulation
- 2. Menstruation comes with temperature rises
- 3. Ovulation occurs on the 14th day before next menstruation
- 4. Ovulation occurs on the 14th day behind menstruation.

B3. Which of the following is a male genitalia? (*Choose all that apply*)

- 1. Penis 2. Prostrate 3. Ovary 4. Epididymis 5. Bladder.

B4. Who do you think should be responsible for contraception?

1. Man
2. Woman
3. Both of them have the responsibility
4. None of them

B5. What is your consideration of choosing contraceptive methods?

1. It's effectiveness
2. One's feeling of using contraceptive methods
3. It's cost
4. The convenience of getting (buying) it.
5. How safe it is.

B6. The side effects of oral contraceptive pills? (*Choose all that apply*)

1. Affecting fertility
2. Affecting the regularity of the menstruation cycle.
3. Risk of weight gain
4. Nausea/ vomit
5. No side effects

B7. Which methods can be used for emergency contraception? (*Choose all that apply*)

1. Levonorgestrel tablets
2. Intrauterine device
3. Vaginal douching
4. Post no 2
5. Don't know

B8. Which contraceptive method do you think is suitable for Senior High School Students? (*Choose all that apply*)

1. Rhythm method
2. Oral contraceptive pills
3. Intrauterine device
4. Withdrawal
5. Male condom
6. Contraceptive vaginal ring
7. Female condom
8. Don't know

B9. Which stage of the menstrual cycle is one most likely to conceive?

1. Menstrual period
2. A few days before or after menstruation
3. About 14 days before menstruation
4. Don't know

B10. Do you think there may be an impact on women physical and mental health after abortion?

1. Not at all
2. Slightly
3. Serious
4. Uncertain

B11. Do you think sex education should be thought in schools?

1. Yes
2. No
3. Don't know

B12. How do you think about chastity (staying away from sex until legally married)?

1. Important for females but not for males
2. Important for males but not for females
3. It is important for both males and females
4. It is not important for both males and females

B13. What is your attitude toward premarital sexual behavior?

1. Don't agree with premarital sex
2. If I have a boyfriend, I can accept.
3. If I am ready to get married to him, I can accept
4. No matter what, if I have feelings for him, I can accept.

B14. Have you ever had sexual impulses?

1. Always
2. Occasionally
3. None

B15. Have you ever engaged in masturbation?

1. Always
2. Occasionally
3. None

B16. Do you think masturbation is normal?

1. Yes
2. No

B17. Which of the following are sexually transmitted disease? (*Choose all that apply*)

1. Syphilis
2. AIDS
3. Gonorrhea
4. Genital herpes
5. Hepatitis B
6. Don't know

B18. Which ways can AIDS be transmitted? (*Choose all that apply*)

1. Blood transfusion
2. Sharing contaminated needles
3. Sharing food
4. Shaking hands or personal object
5. Kissing
6. Unprotected sex

PART THREE C - (Practice)

C1. Have you ever had sexual intercourse before?

1. Yes
2. No

C2. When did you have your first sexual intercourse?

1. 12-15years
2. 16-18years
3. 19-21years
4. 22 and above

C3. Did you use contraception during the first sexual intercourse?

1. Yes
2. No (**SKIP C4 if your answer is NO**)

C4. Which contraceptive method did you use during the first sexual intercourse? (Choose all that apply)

1. Condom
2. Oral contraception pills
3. Rhythm method
4. Withdrawal

5. Intrauterine device
6. Norplant

C5. Have you ever had unprotected sex?

1. Yes
2. No (SKIP TO C9)

C6. How many times did you ever or your partner have unintended pregnancy?

1. Once
2. Twice
3. Above three times

C7. How did you deal with the unintended pregnancy?

1. Surgical abortion
2. Medical abortion
3. Preparing to give birth to a child
4. None of the above

C8. How often do you use contraceptives?

1. Always
2. Often
3. Sometimes
4. Occasionally
5. Never

C9. Why don't you use contraception? (Choose all that apply)

1. Thought occasional sex could not lead to pregnancy
2. Thought the contraceptives method were too expensive
3. Worried about the side effects
4. Did not prepare the pills or the tools for the unplanned sex
5. Partner didn't want (me) to use it
6. Thought the delight will be affected

C10. By which means do you get your first information on sex and contraception?

1. Radio and TV
2. Classmates and friends
3. Internet
4. Newspapers
5. Medical staffs
6. Family members

7. Teachers