ENSIGN GLOBAL COLLEGE

KPONG, EASTERN REGION, GHANA

FACULTY OF PUBLIC HEALTH

DEPARTMENT OF COMMUNITY HEALTH

UTILIZATION OF FAMILY PLANNING BY FEMALE ADOLESCENTS AT BIAKOYE DISTRICT IN THE OTI REGION OF GHANA

BY

PETER EYRAM KUENYEFU

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JULY, 2022

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A THESIS SUBMITTED TO THE DEPARTMENT OF COMMUNITY HEALTH,

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THE MASTER OF PUBLIC HEALTH DEGREE

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DECLARATION

I hereby declare that this thesis work was written as a result of my personal effort and through the support of my supervisor. I therefore present it to Ensign Global College for the award of Master's in Public Health degree.

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(Head of Academic Program)	Signature	Date

DEDICATION

I first and foremost dedicate this document to God Almighty for seeing me through the project work successfully.

Secondly, I dedicate this thesis work to my mother Edith Enyonam Akortia and my siblings Elorm, Edem, Emefa, Selassie, Sefakor and Seyram for their prayers and support during the course of my studies.

I also wish to dedicate this project work to the Biakoye District Director of Health Services, Miss Rita Ama Wurapa and all staff of Biakoye District Health Directorate and Abotoase Health Centre.

Finally, this piece of academic work is also dedicated to Dr. Edward Kofi Sutherland, my supervisor for his patience and guidance throughout the project.

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DEFINITION OF TERMS

Abstinence: Refraining from sexual intercourse

Adolescence: is the phase of life between childhood and adulthood, from ages 10 to 19.

Contraception: As a means of logical progression, contraception is necessarily anything that acts against conception, and therefore, anything that prevents the success of fertilization or implantation.

Contraceptive Prevalence: Percentage of couples currently using a contraceptive method

Family Planning: Family planning refers to the use of modern contraceptives or natural techniques to limit or space pregnancies

Informed Choice: Decisions based on accurate information: "The best decisions about family planning are those that people make for themselves, based on accurate information and a range of contraceptive options. People who make informed choices are better able to use family planning safely and effectively."

Intrauterine device (IUD): A flexible, usually plastic device inserted into the uterus to prevent pregnancy. May contain metal (generally copper) or hormones for added effectiveness. It produces a local sterile inflammatory response caused by the presence of a foreign body in the uterus which causes lysis of the blastocyst and sperm, and/or the prevention of implantation. IUDs may also prevent fertilization due to deleterious effects on spermatozoa as they pass through the uterus.

LIST OF ABBREVIATIONS/ ACRONYMS

ANC	-	Antenatal care
AOR	-	Adjusted Odds Ratio
CI	-	Confidence Interval
DHIMS	-	District Health Information Management Systems
FP	-	Family Planning
GDHS	-	Ghana Demographic and Health Survey
GMHS	-	Ghana Maternal Health Survey
GHS	-	Ghana Health Services
GSS	-	Ghana Statistical Service
IUD	-	Intrauterine Device
LAM	-	Lactational Amenorrhea Method
LMICs	-	Low and middle-income countries (LMICs
MCU	-	Modern Contraceptive Usage
OR	-	Odds Ratio
SRH	-	Sexual and Reproductive Health
SSA	-	Sub- Saharan Africa
STI	-	Sexually Transmitted Infections
WHO	-	World Health Organization

ABSTRACT

Background: Comprehensive sexual and reproductive health and rights care, including family planning, is not only a health and rights issue but it is developmental necessity, as it also improves livelihoods and promotes economic growth. Therefore, providing quality reproductive health services to women, men, and adolescents and ensuring consistent contraceptive prevalence rate growth is a priority for the Government of Ghana. Improving the contraceptive prevalence rate and increasing the uptake of long-term family planning will provide multiple benefits to Ghana by accelerating development and reducing pressure on the nation's resources.

Methodology: A cross-sectional study was used to estimate the level of utilization of family planning by female adolescents in the Biakoye District. The study primarily relied on questionnaires to sample a total of 344 respondents for the survey. Descriptive statistics involved the use of frequencies and percentages while the inferential statistics adopted the Chi-square test and binary logistics analysis which reported odds ratios with their respective 95% confidence intervals signifying the level of precision.

Results: Respondents with high-level knowledge had 1.667 (95% CI: 1.016 - 2.735) times the odds of utilizing family planning methods compared to their counterparts with low-level knowledge. Similar findings were detected with the highest level of education attained by the respondents; where those with basic level education had 2.854 (95% C1: 0.988 - 8.241) times the odds of utilizing family planning methods compared to their counterparts that had no formal education. Consequently, those with secondary level education had an even higher odds of 3.186 (95% C1: 1.009 - 10.055) in utilizing family planning methods than their counterparts who had no formal education. Furthermore, the odds of utilizing family planning methods were higher, 1.796 (95% CI: 1.013 – 3.184)

among respondents who were not on the health insurance scheme compared to the card-bearing members. The odds of utilizing family planning methods, though, tended to diminish with the age of respondents and the community where they resided.

Conclusion: The fact that utilization of family planning by the female adolescents tended to increase with their knowledge and awareness of contraceptive methods, and educational level, suggests that education also empowers women to make better decisions concerning their reproductive health.

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CHAPTER ONE

INTRODUCTION

1.1 Background Information

The number of adolescents worldwide is currently at an all-time high and is expected to continue to increase significantly during the ensuing decades. This anticipated rise will mostly take place in developing nations with high teen fertility rates. The number of births per 1,000 female teenagers worldwide has decreased, from 56 in 2000 to 45 in 2015 and now 44 in 2018. However, at 101 births per 1,000 female adolescents, Sub-Saharan Africa's adolescent fertility rate is still high in 2018. Identity development occurs throughout the vital adolescent years, which are also defined by dangerous behaviours like unprotected sexual activity that results in unintended pregnancies. Sub-Saharan Africa is one of the regions with the lowest rates of adolescent contraception use despite having high rates of adolescent pregnancies. In Sub-Saharan Africa, there are 53 million women between the ages of 15 and 19, and 12.1 million (or 23 percent) of them need contraception because they do not want to have children for at least two years. However, just 38% of the 12.1 million currently utilizing contraceptives are modern; the most popular choices are male condoms, injectables, and pills (Kumbeni et al., 2019).

In Ghana, the overall uptake of contraceptives rose from 17 percent in 2008 to 22 percent in 2014, while adolescent females' uptake showed no improvement at all. Pregnancies among women aged 15 to 19 in Ghana increased slightly from 13% in 2008 to 14% in 2014. This issue is quite concerning since it raises the possibility of more teenage pregnancies in Ghana (Kumbeni et al., 2019). In Ghana, 14% of teenagers between the ages of 15 and 19 are either new mothers or expecting their first child (Agyemang et al.,

2019). Biakoye is home to 18,559 adolescents (10-19 years) out of which 9,645 are adolescent girls, accounting for 11% of its population (Biakoye DHIMS, 2020).

Family planning has a long history in Ghana, much like in Kenya, with an early start, steady growth, and little opposition or obstacles. Family planning became popular soon after the country gained its independence, and the capital city of Accra established a Family Advice Center in 1961. Apart from a brief period (1964–1966) during which President Nkrumah outlawed contraception, the nation embraced a voluntary population policy early on and became the first African state to sign a global agreement on the issue in 1967 (World Leaders Declaration on Population). Family planning organizations were established in hospitals, public health facilities, and private family planning clinics in 1970 following the establishment of a national population policy in 1969. After that, the family planning program continued to grow, with significant awareness campaigns (1986) and frequent modifications including incorporation into reproductive health (Garenne, 2018).

Family planning is included in comprehensive sexual and reproductive health and rights care, which goes beyond health and rights. It is essential for development because it raises living standards and encourages economic expansion. The government of Ghana therefore places a high focus on offering women, men, and adolescents' access to high-quality reproductive health services and maintaining a steady increase in the prevalence of contraception. By speeding growth and relieving pressure on the country's resources, increasing the uptake of long-term family planning can assist Ghana in a number of ways (MOH, 2015).

Reducing unmet contraceptive demand, which is the main cause of unwanted pregnancies, is the main goal of family planning programs. A third of women of reproductive age reported having unmet family planning needs, according to the Ghana Demographic and

Health Survey (GDHS) 2008 data. Since the early 1990s, not much has changed in terms of the magnitude of unmet need. Any improvements in our knowledge of the root causes of unmet need may have a significant impact on programs not only in Ghana but also elsewhere in West Africa. Because Ghana's fertility transition is further along than in its neighbours, any new information about how unmet demand is evolving there could have repercussions everywhere (Machiyama and Cleland, 2013).

Utilizing contraception aids individuals and couples in realizing their fundamental right to choose freely and responsibly whether, when, and how many children to have. Not only have health results, such as lower maternal and infant mortality, improved as a result of the increased use of contraceptive techniques, but also educational and economic outcomes, particularly for girls and women (UN, 2017).

The discipline of family planning offers a wide range of contraceptive options, service delivery techniques, and success data. We generally know what to do. We must, however, employ these evidence-based techniques in novel and imaginative ways in order to address the significant unmet requirements. We must put more effort into expanding what we already know works and encouraging larger partnerships both within and outside the health sector. The family planning community may increase rights-based reproductive options to address unmet contraceptive demand through comprehensive sexual and reproductive health services as part of enhanced health systems by collaborating with global, national, and local leaders (ICFP, 2009).

1.2 Problem statement

Family planning is the process by which a couple jointly decides how many children they want to have and when, in order to be able to provide each child with enough love, care,

and attention as well as a quality education (USAID, 2010). Family planning enables people to have the desired number of children, which benefits mothers' health and promotes the social and economic advancement of a society.

The majority of women in the reproductive age range (15–49) who are married or in a partnership use contraceptives in practically every region of the world. Around the world, 63% of these women used some sort of contraception in 2017. In Europe, Latin America and the Caribbean, and Northern America, the prevalence of contraception was above 70%, but it was only 25% in Middle and Western Africa (UN, 2017).

In Ghana, in 2014, more than 25% of married women between the ages of 15 and 49 who were fertile used family planning. They performed marginally better than their single, sexually active colleagues. By 2020, it is anticipated that the percentages would increase to 33 percent for married women and 50 percent for single women.

The teenage pregnancy rate in Biakoye District has consistently for the past five (5) years been above the expected national rate of 12%. In the year 2016 alone, out of the total 2808 Antenatal care (ANC) registrants, 495 of them were teenagers representing 17.6%, while in the year 2017, total ANC registrants stood at 2784 and 384 of them were teenagers representing 13.8%. Also, in the year 2018, 374 teenagers representing 13.5 % were ANC registrants out of a total of 2780 ANC registrants. In furtherance, out of the total 2800 ANC registrants in the year 2019, 368 were teenagers (13.1%) and in the year 2020, 371 teenagers (14.5%) formed part of the total 2564 ANC registrants. (GHS, DHIMS2, 2016-2020).

Biakoye District has also seen cyclical movements in the Family Planning Acceptor Rates from 2016 to 2020. In 2016, the rate was 29.9%. This increased significantly to 44.4% in

2017 and then decreased to 36.5% in 2018. In 2019, there was a slight increase to 38.7%. This again reduced to 35.8% in 2020 (GHS, DHIMS2, 2016-2020). A low Family Planning Acceptor Rate or Contraceptive Prevalence Rate is a cause for great concern. Along with a low FP Acceptor Rate are the issues of increase in teenage pregnancies, which generally are unsafe pregnancies and also the propensity to contract sexually transmitted infections (STIs), especially HIV – AIDS. There was therefore a need to explore the underlying factors responsible for the cyclical movement in Family Planning Acceptor Rate in the Biakoye District of the Oti Region and recommend effective strategies to increase the rate.

1.3 Rationale of the study

Around 1.8 billion individuals, or about one-fourth of the world's population, are between the ages of 10 and 24. Numerous sexually active teenagers around the world wish to avoid, delay, or restrict pregnancy, but often lack the information, agency, or resources necessary to make such decisions. In general, adolescents who are not married have more unmet need for contraception than those who are; however, married teenagers (ages 15 to 19) have more unmet need than all married women. The need among unmarried teenagers is substantially higher among those aged 15 to 19 than among those aged 20 to 24. In a world where one-third of girls in poor nations get married before the age of 18, and one in nine get married by the age of 15, marital status is a factor that cannot be ignored. While both married and single girls engage in sexual activity, the majority of the births that teenage moms give birth to take place within marriage.

Teenagers frequently experience socio-cultural and structural constraints that hinder them from fulfilling their reproductive urges, which can lead, among other things, to unwanted and harmful pregnancies. We must comprehend the obstacles teenagers face when deciding on their reproductive goals and while requesting, obtaining, and taking

contraceptives if we are to better assist them in utilizing family planning programs. And we need to know what motivates people to overcome these challenges (International Center for Research on Women, 2014).

The teenage pregnancy rate in Biakoye District has consistently for the past five (5) years been above the expected national rate of 12%. In the year 2016 alone, out of the total 2808 Antenatal care (ANC) registrants, 495 of them were teenagers representing 17.6%, while in the year 2017, total ANC registrants stood at 2784 and 384 of them were teenagers representing 13.8%. Also, in the year 2018, 374 teenagers representing 13.5 % were ANC registrants out of a total of 2780 ANC registrants. In furtherance, out of the total 2800 ANC registrants in the year 2019, 368 were teenagers (13.1%) and in the year 2020, 371 teenagers (14.5%) formed part of the total 2564 ANC registrants. (GHS, DMIMS2, 2016-2020).

This study therefore sought to determine the level of utilization of family planning among female adolescents in the Biakoye District and understand the factors responsible for such level of utilization. Results of this study will serve as inputs for formulating policies to improve upon the utilization of family planning among female adolescents in the Biakoye District to reduce the incidents of teenage pregnancies and maternal mortality.

1.4 Conceptual framework

The conceptual framework below (figure 1.1) describes the multitude of factors that influence the acceptance and use of family planning services. The outcome variable is the utilization of family planning.

The decision by couples and individuals to utilize family planning services can directly or indirectly be influenced by one's socio-cultural and demographic factors, quality of care

at family planning centres, reproductive health information and knowledge on family planning.

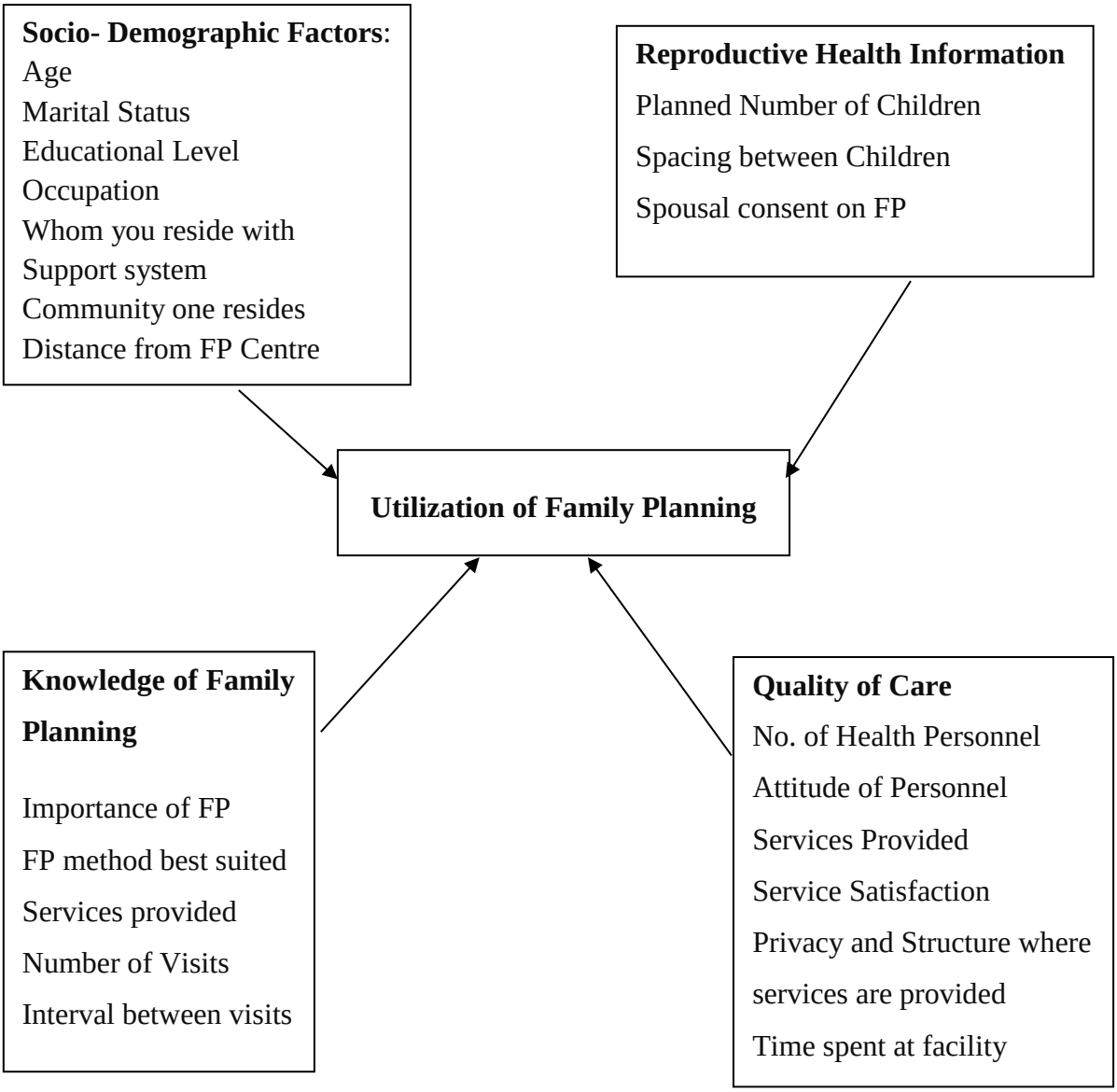

Figure 1.1 Conceptual framework of Utilization of Family Planning. Adopted from Gizaw and Regassa (2011)

Notable among the factors that influence the utilization of family planning are access to accurate information on one's reproductive health (planned number of children, spacing between children, spousal consent on family planning) and knowledge about family

planning services such as the importance of family planning, methods available, advantages and disadvantages of the various methods, number of visits, interval of visits among others. Additionally, socio-demographic characteristics such as age, marital status, educational level, occupation, support system, person one is living with and distance to a family planning centre, largely influence the utilization of family planning. Age as a factor can signify an individual's physical and mental ability to decipher issues relating to family planning. Socio- demographic factors such as occupation, cost of service distance to health facility, means of transport and its attendant cost, and accessibility also greatly influence the utilization of family planning services. Quality of care rendered at family planning centres also have the tendency to influence the uptake of family planning services. Variables assessed under quality of care include number of service providers, privacy, confidentiality, attitude of staff, competence of service providers, time spent at the facility and services provided among others.

1.5 Research Questions

1. To what extent are female adolescents familiar with family planning?
2. What percentage of female adolescent girls use family planning?
3. Which variables affect female adolescents' use of family planning?

1.6 General objective

Generally, this study sought to assess the utilization of family planning by female adolescents in the Biakoye District of the Oti Region of Ghana.

1.7 Specific objectives

i. To evaluate the level of family planning knowledge held by female adolescents.

ii. To ascertain the extent to which female teenagers use family planning.

iii. To determine the causes of female teenagers' use of family planning, see goal.

1.8 Profile of the Study Area

Biakoye district was carved from Jasikan District and it started operation in May 2011, with a total population of 84, 0705. It is located in the newly created Oti Region. The capital is Nkonya Ahenkro, which is about 70 kilometers from Ho, the regional capital of the Volta Region and 185 kilometers from Accra, the national capital (Biakoye, 2014).

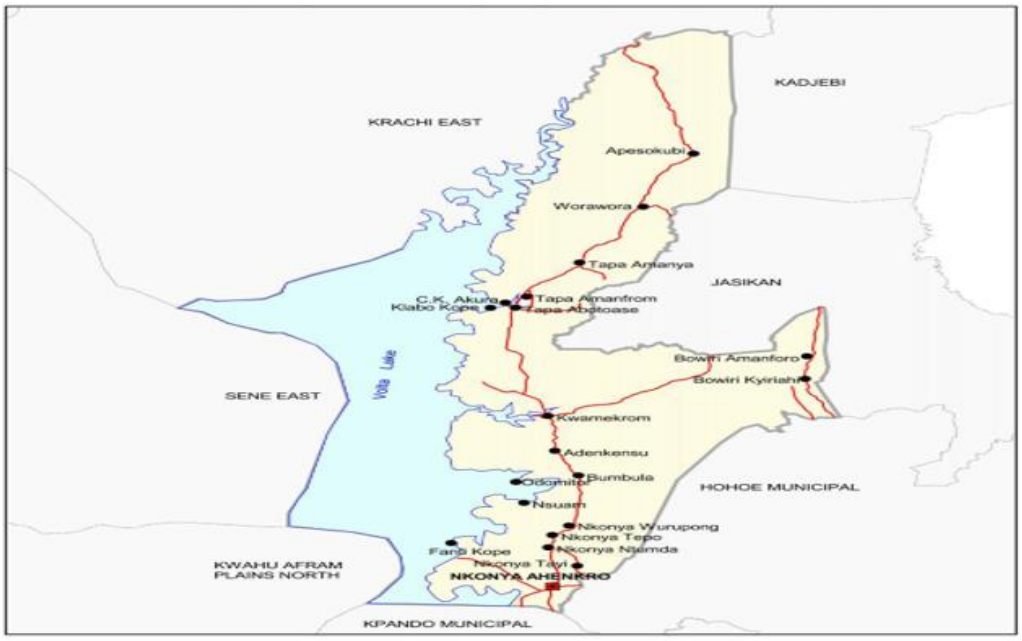

Figure 2 - District Map of Biakoye District

It has one hundred and eight communities (108) with forty-eight (48) being Island and Peninsular communities. The district shares borders with Krachi East in the North, Kpando/Hohoe in the South, Jasikan in the East and the Volta Lake in the West (Biakoye, 2014).

1.9 Scope of the Study

This study assessed the concept of family planning, adolescent and reproductive health, the extent to which female adolescents in Biakoye District utilize family planning, and the factors influencing the level of their utilization in order to inform policy and action towards an improved family planning utilization among female adolescents in Biakoye District.

1.10 Organization of Report

Chapter One presents the introduction, which comprises the background to the study, the problem statement, rationale of the study, conceptual framework, research questions, and objectives. Chapter Two entails the literature review: the selection and analysis of available published works concerning the topic under study. Chapter Three describes the methodology followed by Chapter Four which presents the analysis of data as presented according to the study objectives. Chapter Five consists of the discussion of results using existing information. Chapter Six finally provides conclusions and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter aims at reviewing relevant literature on the factors that influence the utilization of family planning services by female adolescents. Critical review was made on works done by others on the subject matter in relation to socio-demographic factors, access to information by adolescents on reproductive health services available to them and utilization of those services, quality of care and heath-service variables, coupled with factors that serve as facilitators and barriers to the utilization of family planning services.

2.2 Adolescent Reproductive Health

The crucial period of adolescence is marked by peer pressure, perplexity, enthusiasm, and experimentation, particularly with sex, drugs, and alcohol. Since gregarious sexual behaviours put young people at risk for sexually transmitted diseases, unexpected pregnancies, unsafe abortions, and even death, adolescent reproductive health is crucial (Isonguyo and Adindu, 2013).

Many people start having sexual relations during the vital time of adolescence. Around 20 million female adolescents between the ages of 15 and 19 need modern contraceptive techniques, which means that the sexual and reproductive health (SRH) needs of adolescents around the world continue to be largely unmet. The greatest incidence of teen pregnancies and lowest use of modern contraception are found in Sub-Saharan Africa. In Sub-Saharan Africa, a third of adolescent pregnancies are unintentional. Of these unwanted pregnancies, more than a third result in unsafe terminations (Sserwanja et al., 2021). In low- and middle-income countries, problems associated to pregnancy and

childbirth are the main causes of maternal death among female adolescents between the ages of 15 and 19. (LMICs). In addition to its detrimental consequences on higher education attainment and employment chances, adolescent pregnancy and delivery are linked to additional poor health outcomes such anemia, preterm birth, low birthweight, and harmful effects on adolescent mental health (Sserwanja et al., 2021).

Adolescent females who engage in unprotected sexual activity are more likely to become pregnant unintentionally, which can result in abortion, complications from abortion, and other health and social issues like infertility and dropping out of school. Teenagers frequently engage in unsafe sexual activity. For instance, low rates of teenage use of contraception are reported in the 2008 Ghana Demographic Health Survey (24.0 percent among females and 39.0 percent among males). In a separate study by Karim et al. (2019), 18.0 percent of adolescent boys and 27.0 percent of adolescent females in Ghana who were not married reported using condoms during their first intercourse. In the same study, 24.0 percent of men and 20.0 percent of women reported regularly using contraception with their current relationship. Teenagers (particularly females) may be more likely to become pregnant unintentionally as a result of this sexual behaviour.

It is known that teenagers in some underdeveloped nations have unique demands when it comes to sexual and reproductive health. As a result, a lot of people frequently encounter false or inadequate information. It has been noted that many teenagers today engage in risky sex, which frequently results in unintended pregnancies. These kinds of circumstances necessitate special consideration for teenage use of contraception. Another significant factor is that, although being sexually active, adolescents between the ages of 14 and 19 rarely utilize contraceptives because of unfavorable social attitudes. As a result, many teenage girls who become pregnant frequently drop out of school (if they are in

school). Many of them frequently lack the social and financial resources to raise their children (Yidana et al., 2015).

Given the absence of usage of contraceptives, empirical statistics from sub-Saharan Africa (SSA) indicate that a significant fraction of 15 to 19-year-olds are sexually active and at risk of developing HIV, other STIs, or unintended pregnancy. Despite recent data showing that young women's use of contraception in SSA has increased in line with global trends, young people in these age groups disproportionately utilize contraception, particularly short-term methods (e.g., condoms). Due to the SSA region's diversity, there are regional variances in how young women use contraception (Ahinkorah et al., 2020).

Teenagers in SSA continue to use few traditional and contemporary contraception. Therefore, it is necessary to intensify current efforts to increase teenage use of contraceptives in SSA. This objective can be met by enabling these young girls, especially those living in rural regions with low literacy rates, to make informed decisions about their reproductive health in order to reduce the risk of unexpected adolescent pregnancies, HIV/AIDS, and other STDs. This strategy would aid in lowering maternal mortality and preterm delivery in the SSA nations under study (Ahinkorah et al., 2020). Reducing unmet contraceptive needs, which are a major contributor to unwanted pregnancies, is the main goal of family planning programs (Machiyama and Cleland, 2013).

In terms of the risks of unwanted pregnancies that are linked to negative outcomes like miscarriages, stillbirths, unsafe abortions, and other issues that could cause infant or maternal deaths, female adolescents are unfairly disadvantaged. Young women, married or not, who use contraceptives in poor nations experiment a lot and inconsistently. Fear, humiliation, cost, and lack of information are just a few of the obstacles female teenagers experience while trying to use contraceptive methods. Since few female teenagers in sub-

Saharan Africa use contraceptives, the majority of adolescent pregnancies there are unintended. In order to effectively promote contraception use among female adolescents and execute family planning programs, it is crucial to understand the correlates of contraceptive usage (Nyarko, 2015).

On the other hand, Csikszentmihalyi (2019) refers to the term adolescence as a phase of transition comprising growth and development from childhood to adulthood. The World Health Organization (WHO) defines an adolescent as any person between the ages of 10 and 19 years. Additionally, the WHO gave a more expansive and inclusive definition of adolescence as a stage between 10-24 years which is considered as an important stage for the framing of appropriate laws, services systems and social policies (WHO, 2019).

It is estimated that almost1.2 billion adolescents worldwide live in developing countries and more than1.8 billion of the population globally are the youth who are 10-24years of age (Alehegn, Mulunesh,Yilkal & Abebaw,2018). In furtherance, the WHO projects that one out five adolescent girls give birth by the age of 18 and 16 million girls aged 15 to 19 years give birth annually. These figures rise to at least one out of every three girls within the poorest regions like Sub-Saharan Africa and South East Asia (Mekonnen et al., 2019).

Dick & Fegurson (2015) notes that teenagers have been identified as the most vulnerable group in terms of sexual and reproductive health difficulties in other regions of the world, making adolescence a crucial time in a person's life when a variety of biological and psychological changes take place. The age range of 10 to 19 years was chosen for this study because it corresponds to the beginning of young people's sexual development.

Adolescent health care services have been established and customized to fulfill the unique health needs of teenagers in light of the aforementioned problem. These services include

family planning, contraceptives, voluntary HIV counseling and testing, antenatal and postpartum care, syndromic management of sexually transmitted infections, pre-abortion counseling, and comprehensive abortion care, to name a few. They also include information on reproductive health. However, due to a lack of use of these services by young people, preventable health issues that may be quickly treated if recognized early are on the rise (Heflinger & Hinshaw, 2010).

Nations globally are therefore, committed to the needed interventions aimed at ensuring that within the next 15years, reproductive and sexual health services, including Family Planning (FP) services are easily made accessible to all adolescents coupled with ensuring that the reproductive rights of all persons including adolescents are respected. The 2030 agenda for sustainable development has two targets that are pertinent to FP, which are subsets of goals aiming at ensuring gender equity and empowering women and girls (Goal 3) and enhancing the general health and well-being of the general population (UN,2017).

2.3 Family Planning

Unwanted pregnancies are linked to a variety of negative, and even devastating, health, social, and economic repercussions. The main public health measure to stop unintended pregnancies is family planning (Ganatra & Faundes, 2016).

A service that enables individuals and couples to predict and achieve the desired number of children, as well as the spacing and timing of their births, is known as family planning. It is accomplished by using contraceptive methods and treating unintentional infertility (WHO, 2015). This can be done by using a contraceptive, which is a way to avoid getting pregnant using either conventional or modern family planning techniques.

According to the Ghana Statistical Survey (GSS) (2014), the use of contraceptives or usage of Family Planning prevents a third of deaths associated with pregnancies, and prevents about 44% of neonatal mortalities. Adequate spacing of births for not less than 2years has the tendency of preventing adverse outcomes related to pregnancy and other attendant effects such as high incidence of preterm deliveries, and malnutrition which results to stunted growth among children. Birth spacing for optimal pregnancy outcomes therefore apply globally and not only in poor settings or communities of multiple deprivations. The individual thus has the choice to determine whether or not to give birth and the number of children he or she wants to have.

Contraceptives generally have been classified mainly into traditional and modern contraceptive methods. Among the modern contraceptive methods are the male and female condoms, oral contraceptive pills, injectables, implants, male and female sterilization, male and female, the intrauterine device (IUD) and Lactational Amenorrhea Method (LAM). The traditional methods of contraception on the other hand are the withdrawal, rhythm, and folk methods (GSS,2014).

The WHO (2010) further notes that family planning may limit population increase and astonishingly also helps to reduce hunger and poverty and supports the attainment of both national and international development objectives. The WHO report goes on to say that using contraception may empower women and families and eventually advance gender equity.

Additionally, using contraceptives is likely to lower 32 percent of maternal mortality and 10% of newborn, infant, and child fatalities. If all women at risk of unplanned pregnancies had access to and used modern contraceptive methods, the number of unsafe abortions and

unexpected pregnancies would decline, and the cost of post-abortion care in countries where abortion is legal would fall to around $230 million annually (WHO, 2010).

Another benefit that can be accrued from family planning according to the WHO (2010) is the prevention of 80% of HIV infections caused through sexual transmission routes with correct and consistent use of condoms (WHO, 2010). To therefore increase the acceptance and utilization of family among couples or individuals, Chapman (2011) states that since people cannot be coerced to adopt family planning, there was the need to ascertain the barriers to the uptake of modern contraceptive methods by people, and proceed to make them understand and appreciate the benefits they can derive from contraceptive use because people cannot be coerced to adopt family planning.

2.4 Family Planning Utilization

According to the Ghana Statistical Service (2015), just 19 percent of females between the ages of 15 and 19 utilize contraceptives. Male condoms and the pill are the most popular methods of family planning among sexually active, unmarried women, most of whom are young (8 percent each). Rhythm technique and injectables account for 7% of the market each, while implants account for 5%. However, compared to unmarried women today, who use the old approach at a rate of 5 percent, sexually active unmarried women use it at a rate of 13%.

According to a survey conducted in Ethiopia, counseling services and STIs, including HIV/AIDS, accounted for the majority of the youth's use of adolescent-friendly services (57.4% and 57.3 percent, respectively) (44.7 percent) (Motuma et al., 2016). Additionally, they mentioned counseling (37.2%) and STIs (54.9%) as the actual adolescent-friendly services provided at the healthcare facilities. Nearly 70% of respondents affirmed that

young people, starting at the age of 15, needed to receive important knowledge, education, and communication about reproductive health. The youth identified unexpected sexual encounters (49.8%), STIs/HIV/AIDS (72.4%), undesired pregnancy (43.5%), and abortion (43.5%) as key reproductive challenges (34.5 percent). The majority of young people—3 out of 4—said that teenagers should be involved in making decisions about their own reproductive health issues. Only 63.8 percent of the teenagers said they had used the services at least once in the year before to the poll, despite the fact that 82.2 percent said they were unaware of where adolescent reproductive services are provided. According to Justine's (2017) research, more guys (79 percent) than girls (21 percent) sought medical attention for STIs. However, compared to boys in the older age group, a larger proportion of girls needed STI therapy. In the poll, almost 23% of teenagers reported seeking post-abortion treatment. The most used services in reproductive-friendly areas were library services, counseling, education, and information on reproductive health. Some teenagers, however, are hesitant to use reproductive health services due to their fear, lack of preferred services, worry about the side effects of family planning products, inconvenient service hours, lack of privacy and confidentiality, religious opposition, the cost of services, and opposition from a sexual partner. Additionally, even if they had certain symptoms, some teenagers with STI-related issues never sought diagnosis or treatment. As a result of their fears, the cost of the services, and the inconvenience of the working hours, they chose not to seek medical assistance (Negash et al., 2016). Due to the lack of trust and anxiety engendered by societal norms and values, adolescents may be more likely to engage in this conduct.

2.5 Factors Influencing Utilization of Family Planning by Adolescents

The services that young people need from primary healthcare providers and the actual main illness burdens they experience differ significantly (psychological challenges, STIs etc.). Intense work and focus have been placed on this issue in the search to understand the barriers young people face in getting health care. In order to identify these barriers, evidence has been accumulated over the last 20 years. According to studies conducted all across the world, young people are typically hesitant or unable to receive the necessary health care that address these obstacles. These difficulties range from issues with access to services that are confidential to knowledge of services that are available in terms of location and distance, enabling teenagers to make educated decisions, and promoting access to reproductive health services (Adebisi et al., 2019; Health et al., 2019; Moise et al., 2017; Motuma et al., 2016; Nash et al., 2019 & Mugore, 2019).

The results of earlier research attempting to explore teenage contraceptive use have revealed that a variety of reasons, including high cost and unfavorable provider attitudes, contribute to teens' non-use of modern contraceptives (Nyarko, 2015). Studies in Ghana have looked at factors influencing the use of birth control among women in the reproductive age range of 15 to 49; trends in the use of birth control among female adolescents in Ghana; and prevalence and correlates of contraceptive usage among female adolescents (aged 15 to 19) (Nyarko, 2015).

Although these studies have shed light on teenage contraceptive use patterns, little is known about the variables that prevent adolescents in Ghana's Biakoye District, in particular, from using contemporary contraceptives.

2.5.1 Socio-Demographic Variables

Research conducted by Negash et al., (2016) a study on the use of reproductive health services and the factors that influence it found that age was a major sociodemographic factor that affected how often people used the services.

A study carried out by Nyarko (2015) Female middle adolescents in Ghana between the ages of 15 and 17 were shown to be less likely than older female adolescents between the ages of 18 and 19 to use contemporary contraceptives. He went on to explain that younger female teenagers are less mature and informed about the availability of different types of contraceptives and the significance of using contraceptives than older female adolescents. In addition, younger female teenagers are more likely than older ones to be single, have lower levels of education, and engage in less sexual activities.

From the observation of Lloyd and Mensch (2008) it is evident that half of all African girls do not have that luxury of completing of primary school. They therefore were of the belief that family planning prolongs education and enables young adolescent girls to concentrate on the accomplishment of the future dreams and aspirations.

Additionally, it has been found that among female adolescents who use contraceptives, marital status has a considerable impact (Clemens & Madise, 2004; Debebe, Limenih & Biadgo, 2017; Kebede, 2000; Tengia-Kessy & Rwabudongo, 2006).

2.5.2 Quality of Care and Health Facility Variables

Another important element that may have an impact on the use of family planning is the quality of care provided and the characteristics of the healthcare facility. A comparison of the contraceptive preferences between the UK and Germany revealed considerable

discrepancies. The study's findings concluded that health care policy, the structure of the pertinent services, and varied provider options all had a significant impact on people's preferences for contraceptives (Oddens & Lehert, 1997).

In another relevant study, attitude of health worker was identified as another quality-of-care factor that determines contraceptive access and utilization by adolescents. According to Ramathuba et al., (2012), in other to improve family planning utilization, 42% of the participants were of the opinion that health care providers are required to demonstrate positive attitude towards them by being caring, patient, friendly, and have enhanced interpersonal and communication skills. Attitude of healthcare providers in this regard according to Awusabo-Asare et al., (2006), may be classified as sympathetic and supportive, less sympathetic and judgmental. Sympathetic providers create youth friendly services and images at their facilities thereby promoting optimal patronage and utilization of services by adolescents, while less sympathetic and judgmental service providers serve as barrier to the utilization of adolescent reproductive services of which family planning is inclusive (Awusabo-Asare et al., 2006).

Another significant variable under quality of care and health facility factors that influences the utilization of family planning is confidentiality and privacy. Adolescents are less likely to seek help because of concerns about confidentiality and privacy. For instance, young people are discouraged from going to and using the services because of the potential shame associated with being seen around an adolescent healthcare center. Young people are discouraged from using the services at various adolescent health clinics due to the lack of privacy at the service delivery points (Binu et al., 2018). The majority of young people experience anxiety whenever they go to a location that offers integrated services because they worry that their parents or guardians will find out why they are there. Adolescents

who seek services in rural India report that other persons or staff were present because a doctor was attending to them, according to a research there. As a result, facilities and healthcare professionals must ensure that patients have privacy during their visits, either by putting up physical barriers between the counseling and clinical spaces. In the meantime, a different survey on the readiness of health facilities to offer adolescent reproductive health care to young people in Uganda's Wakiaso region revealed that the majority of health facilities for young girls and boys lacked the infrastructure to assure privacy. However, there was only one higher-level facility that had a designated location for providing services to young people, according to reports. Even however, none of the health facilities offered a specific space or waiting area where the young people could provide care without interference from other staff members (Justine et al., 2017).

Time spent at the health facility is also another factor that influenced the utilization of reproductive services by adolescents in a study conducted by Oruche, Downs, Holloway, Draucker, & Aalsma, (2014) & Schriver et al., (2014). When health centers become crowded, adolescents lack the patience to wait.

Another reason why teens may not use family planning services is the cost involved in using family planning methods. Negash et al. (2016) claim that there are a variety of factors, including service costs, that prevent many young people from using youth-friendly services. The lack of adequate financial compensation for those who provide adolescent and youth-friendly health care services in many developing nations frequently makes them costly. In Ghana, the payment of health insurance claims has grown to be a major obstacle to the provision of medical care. Teenagers at this age are not typically from lower socioeconomic backgrounds, thus they will not be able to afford the prices charged in friendly corners, especially if they do not have parental permission. As a result, service

costs may affect how much is used (Singh, Rai, Alagarajan, & Singh, 2012). Therefore, it is advisable to later include parents and other stakeholders in order to enhance the standard of healthcare provided to adolescents.

Even in the context of readily available, easily accessible, and acceptable services, dissatisfaction might develop when services are not equal. When young people seek assistance and are not satisfied with the services offered, they frequently do not return to the clinics the next time (Katz & Nare, 2002). Clinicians and public health professionals who have been working diligently to protect everyone's health through primary interventions are urged to recognize the need to remove the obstacles that stand in the way of providing and utilizing adolescent health care services in order to change the negative perception and image of health facilities to one that is welcoming and user-friendly.

2.5.3 Knowledge and Perceptions on Family Planning and Modern Contraceptive Methods

A number of studies have supported the need for understanding of all contemporary forms of contraception prior to acceptance and use. The lack of awareness about contemporary family planning techniques that results in unmet demands for contraceptives is a significant contributing cause to their underutilization. Because they are unaware of how to use family planning services or even the types of methods that are available, the majority of adolescents do not use them (Kumar et al., 2007). Gaining family planning knowledge is essential for assuring access to family planning services and making an informed choice of a contraceptive method. The majority of population health surveys conducted in sub-Saharan Africa show a rising trend in knowledge of one or more contraceptive techniques. As a result, the percentage of all women, including teenagers, in Ghana for instance, who are aware of any technique of family planning has increased from 76 percent in 1988 to

98 percent in 2003 and 2008 and to 99 percent in 2014, according to the Ghana Demographic and Health Survey (GSS, 2014). The 2014 GDHS asked respondents if they had heard of eight modern methods (male and female condoms, the oral pill, injectables, implants, intrauterine devices (IUDs), female and male sterilization, and the lactational amenorrhea method) in order to gather information on respondents' knowledge of family planning and contraceptive methods (LAM), Along with two conventional techniques (rhythm and withdrawal), emergency contraception (GSS,2014). Traditional methods are less familiar than modern ones; just 85% of women are aware of a traditional approach, compared to nearly all women (99%) who are. The most well-known modern techniques among women are the male condom (96 percent), injectables (92 percent), the pill (91 percent), and female condoms (87 percent).

In the quest to throw more light on the variable, Hindin, Mcgough & Adanu (2014), also discovered that knowledge of on basic reproductive health functioning and processes, and how various family planning methods work serve as a barrier to contraceptive use in Ghana. The apparent low knowledge of family planning methods/devices and how they are used gave rise to misconceptions and misperceptions such as fear of side effects and the need for a woman to undergo laboratory blood test to ascertain which method of contraceptive was appropriate to use. In view of the above it was recommended that addressing the issue of poor knowledge of how various methods of contraceptives are used as well as myths and misperceptions about contraceptive use would contribute immensely to improving contraceptive prevalence. In Ghana, the current knowledge of any family planning method is approximately universal with 98% of all women and 99% of all men knowing at least one method of family planning (Amalba et al., 2014).

Awareness creation among the general public in both print and electronic media about the various types and methods of family planning, and the need to utilize them should be an integral part of any effort to promote contraceptive use and increase the knowledge of people on family planning in Ghana (Hindin, Mcgough & Adanu, 2014). On the other hand, if sexually active females are to avoid unplanned pregnancies, there is the urgent need for them to be provided with adequate reproductive health information including contraceptive use. Subsequently, there is the need to employ different media platforms judiciously in order to strengthen communication support to health initiatives and projects geared aimed at enhancing contraceptive use (Okereke, 2010).

In a study by Shahabuddin et al., (2019) in Nepal, it was found that women, especially adolescents, had little knowledge of family planning and it negatively influenced family planning utilization. Besides, although knowledge is pivotal in the usage of family planning methods, studies have shown disparities between knowledge of family planning and its utilization. Despite immense knowledge on the need to prevent pregnancies, practices of service users on usage of contraceptive methods do not march with their knowledge. Inadequate knowledge may also rise from universal presuppositions and indifference (Appiah-Agyekum & Kayi, 2013).

2.5.4 Access to Reproductive Health Information

Peer pressure has been identified has a factor that greatly impacts the growth and development of adolescents and a strong covariate of risk behaviors and potential psychosocial challenges that adolescents face, (Santor, Messervey, & Kusumakar, 2000). At this critical and sensitive stage of age, growth and development, the influence of peers plays a pivotal role in contraceptive uptake in several ways such as attitudes, norms and values thus providing a platform for engagement and support group for adolescents. The

ultimate success of preventing pregnancy and sexually transmitted infections in adolescents most often rest on access to reproductive health information, including family planning. However, Blanc et al. (2009) was of the view that adolescents usually lack access to accurate information on contraceptive usage. Majority of the information gathered from peers in relation to reproductive health information are most often incorrect (Blanc et al., 2009). In furtherance, according to Baku (2014), discussion about sex in most African abodes is a taboo, let alone discussing with children.

Given the important roles that parents play in terms of communication and adherence, many parents lack the ability, which results in disagreements. Parents are the major educators of adolescents, according to a study done in the United States involving 513 adolescents between the ages of 12 and 17. According to the study, 31% of adolescents said that their parents played a significant role in any sex-related decisions (Albert, 2010). Adolescents can easily access adult-oriented websites and pornographic content via the internet. Another study by the nationwide survey of youth (10–17 years old) who mostly use the internet found that 1 in 4 teenagers had encountered undesired pornography and 1 in 5 had been exposed to unwanted sexual approaches (Livingstone & Mason, 2015).

2.5.5 Availability and Accessibility of Modern Contraceptive Methods

Various researchers have conducted studies on the utilization of family planning among children and teenagers and have documented various outcomes. In a study conducted among 28 young, single women in a Ghanaian university, it was found by Gbagbo and Nkrumah (2019) that the participants had good attitudes and knowledge of families. The availability and accessibility of contraceptives prevented the use of family planning, despite the knowledge and favorable attitude.

The most available contraceptive that does not warrant an individual to go to a healthcare facility and additionally helps in avoiding the associated perceived stigma is the emergency contraceptive (Gbagbo & Nkrumah, 2019). Therefore, based on these findings, it may be necessary to revamp the information about family planning services and programs in order to better reach young people.

Additionally, factors such as supply and demand affect how often people use contraceptive services, including contraceptive methods (Mwaikambo et al., 2011). Accessibility, dependability, and understanding of the need for contraceptives were further factors in Iranian women's use of family planning. This was made clear in Iranian research where women who used contraceptives became frustrated with the monthly provisions and sought assistance from private providers. (Mackenzie et al., 2013).

CHAPTER THREE

METHODOLOGY

3.1 Research Method and Design

A quantitative approach was used to evaluate the level of family planning use among female teenagers in the Biakoye District in a descriptive cross-sectional study. Because it uses a questionnaire to gauge the level of family planning usage, it is referred to as quantitative. A cross-sectional study is a sort of observational research that examines data on variables gathered across a sample population at one specific period in time. It offers the chance to evaluate a problem's health once, and the results are simply described in mathematical terms and evaluated using statistical procedures.

3. 2 Data Collection Techniques and Tools

A printed structured questionnaire was constructed by the author and used for data collection. Data was collected in March, 2022. Questions were close ended with options for participants to choose from. The questionnaire consisted of socio-demographic characteristics of study participants, basic understanding of family planning, various family planning methods, choice of methods and frequency of such choices.

Five (5) research assistants were trained on the administration of the questionnaires as well as data collection. Also, COVID-19 safety protocols were strictly adhered to during the data collection process by the research assistants.

3.3 Study Population

The study was conducted among sexually active female adolescents in the Biakoye District. All the five sub-districts of the Biakoye District namely: Nkonya, Kwamekrom, Tapa Abotoase, Bowiri and Worawora/Apesor were featured in this study**.**

3.4 Study Variables

Independent and dependent or outcome variables were the two main study variables considered in the study.

3.4.1 Dependent or Outcome Variable

Utilization of family planning services, such as female condoms, tablets, injectables, implants, female sterilization, the lactational amenorrhea technique (LAM), and intrauterine devices, was the study's dependent or outcome variable (IUD).

3.4.2 Independent Variables

Age, marital status, degree of education, occupation, and other sociodemographic parameters were classified as independent variables, whom the adolescent resides with, support, community one resides and distance from health facility); quality of care and health service factors (cost, attitude of health staff, services provided, service satisfaction, privacy and confidentiality, time spent at health facility and availability of services); knowledge on family planning (importance of family planning, family planning methods and services provided); and reproductive health information (sources of information on reproductive health, planned number of children, spacing between children and spousal consent on family planning).

3.5 Sampling Technique

Sampling is the process of selecting a representative portion of the population, as it is not always possible to study the entire population (Polit, Beck & Hungler, 2001).

Systematic sampling which is a type of probability sampling was used for the research. The main objective of a systematic sampling is to add a degree of system into the random selection of sample that can be logically assumed to be representative of the population.

In that regard, first and foremost, percentages of the total sample size, i.e., 345, were apportioned to the various sub-districts depending on their populations (Abotoase-23,976; Bowiri-6,614; Kwamikrom-14,055; Nkonya-22,323; Worawora/Apesor-16,024). Twenty-three percent (23%) each of the sample size representing 79 participants each were allocated to Nkonya and Kwamekrom Sub-Districts respectively while 15% each of the total sample size representing 52 participants each were apportioned to Worawora and Bowiri Sub- Districts. Eighty-three (83) participants representing 24% of the sample size was allocated to Abotoase Sub-District.

Secondly, in the systematic sampling to pick eligible participants from each of the communities in the various sub-districts, a household with female adolescent (s) was first identified and subsequently, every other three (3) household was pick. If there are no female adolescent (s), the next third house was selected in that order.

In a situation where there are more than one eligible female adolescents, the researcher used his discretion to administer the questionnaire to one or all of them.

Only female adolescents who were sexually active were the focus of this study.

3.5.1 Sample size calculation

A study's sample was a subset of the population that was chosen to allow for generalizations or projections.

The sample size "**n"** for a single proportion of population is given by:

$$n = Z^2 p (1-p)/e^2$$

Where:

n = estimated sample size

p = contraceptive prevalence rate in the population = (*27.5%)- (*GDHS, 2014)

z = Confident interval at 95% = 1.96

e = Margin of error = 0.05

therefore

$$n = 1.96^2 * 0.275(1-0.275)/0.05^2$$

n = 313

Adding 10% non-response rate: 31.3

n = 313 +31.3 ≈ 345

In view of the above 345 sexually active female adolescents were involved in the study.

3.6 Pretesting

Pretesting of the questionnaire was done in the Jasikan District, which is a district that has almost all characteristics as the Biakoye District. Results from the pretesting was not included in the main study. The pre-test made it possible to test the participants' level of understanding of the questionnaire and to make corrections to the questionnaire if necessary.

3.7 Data Handling

Data collected with questionnaires was screened for completeness and errors. The data was entered using Microsoft excel 2019. The principal investigator was responsible for data cleaning and management. The original entry on the questionnaire was used as source data. Soft copies of all dataset and work done were sent to the investigator by e-mail, and an external drive and all completed individual questionnaires were kept under lock and key.

3.8 Data Analysis

Brink (2006) asserts that summarizing, organizing, and describing data in intelligible terms are all parts of data analysis. STATA version 14.0 was used to enter and evaluate the obtained data. We used descriptive statistical techniques, such as graphs, tables, percentages, and averages. In addition to graphical summaries in charts (pie, bar, line, and cross-tabulations), descriptive summary statistics were also offered. Chi-square tests of association were used to evaluate the interdependence of putative factors. To ascertain the strength of the correlation between the variables, bivariate analysis was also conducted.

While Principal Component Analysis was used to rank knowledge of family planning as low or high, multiple Logistic Regression Analysis was also performed to look for

explanatory variables. The Kaiser-Meyer-Olkin (KMO) test was also used to gauge the effectiveness of the sampling.

3.9 Ethical Considerations

Some ethical issues like confidentiality were assured for all participants. Oral informed assent was sought from participants after explaining the study to them before recruitment. Furthermore, this research also sought the assent of participants by asking them to sign an assent form. Participants were made aware of the objectives of the research project and were also assured of anonymity and confidentiality for all information they provided. Participants were as well assured that at any point during the data collection they had every right to withdraw without any consequences to their person, image, or self-esteem. Ethical clearance was obtained from the Ethical committee of the Ensign Global College before the study began.

3.10 Limitations of the Study

Recall bias was one of the limitations of the study because respondents had to retrospectively remember information on some of the questions asked.

3.11 Assumption

The study is based on the assumption that utilization of family planning at Biakoye District is low and is due to factors such as lack of knowledge and awareness of family planning methods and socio-demographic characteristics such as age and level of education.

CHAPTER FOUR

RESULTS

4.1 Introduction

In order to understand the use of family planning services among sexually active female adolescents in the Biakoye District of Ghana's Oti region, this chapter examines the distribution of female adolescents by the selected dependent and explanatory factors. The factors that have been evaluated at this stage are the age of respondents, which communities they are from, marital status, ethnicity, the highest level of education, religion, health insurance status, knowledge and awareness of family planning, utilization of family planning methods, quality of care and health facility factors. Data were gathered mainly through the usage of questionnaires. Out of the 345 administered questionnaires, a total of three hundred and forty-four (344) respondents completed and returned them, yielding a 99.7% response rate.

4.2 Univariate Descriptive Analyses of Study Variables

4.2.1 Sociodemographic Characteristics of Respondents

Out of the 344 female adolescents who participated in the survey, 115 (33.43%) were aged 14 to 16 years while the remaining 229 (66.57%) were aged 17 to 19 years. Eighty-four (84) - (24.42%) of them lived at Abotoase, 78 (22.67%) lived at Kwamekrom and Nkonya, while 52 (15.12%) lived at Worawora and Bowiri. Majority of them presented as singles (N = 236 - 68.6%), from the Ewe Ethnic group (N= 188 - 54.65%) and identified with the Christian religion (N = 318 - 92.44%) (Table 4.1 below).

Table 4.1 - Sociodemographic Characteristics of Respondents

Variable	Categories	N (%) = 344
Age Group (years)	14-16 years	115 (33.43)
	17-19 years	229 (66.57)
Community	Abotoase	84 (24.42)
	Bowiri	52 (15.12)
	Kwamekrom	78 (22.67)
	Nkonya	78 (22.67)
	Worawora	52 (15.12)
Marital Status	Cohabiting	75 (21.8)
	Married	33 (9.59)
	Single	236 (68.6)
Accommodation	Guardian	49 (14.24)
	Parents	176 (51.16)
	Partner	104 (30.23)
	Self	15 (4.36)
Ethnicity	Akan	80 (23.26)
	Ewe	188 (54.65)
	Ga	30 (8.72)
	Guan	46 (13.37)
Educational Level	None	22 (6.40)
	Basic	216 (62.79)
	Secondary	106 (30.81)
Religion	Christian	318 (92.44)
	Muslim	22 (6.40)
	Traditional	4 (1.16)
Ownership of NHIS card	Yes	250 (72.67)
	No	94 (27.33)

NHIS, National Health Insurance Scheme; N = Total Frequency; % - Percentage

4.2.2 Knowledge and Awareness About Family Planning

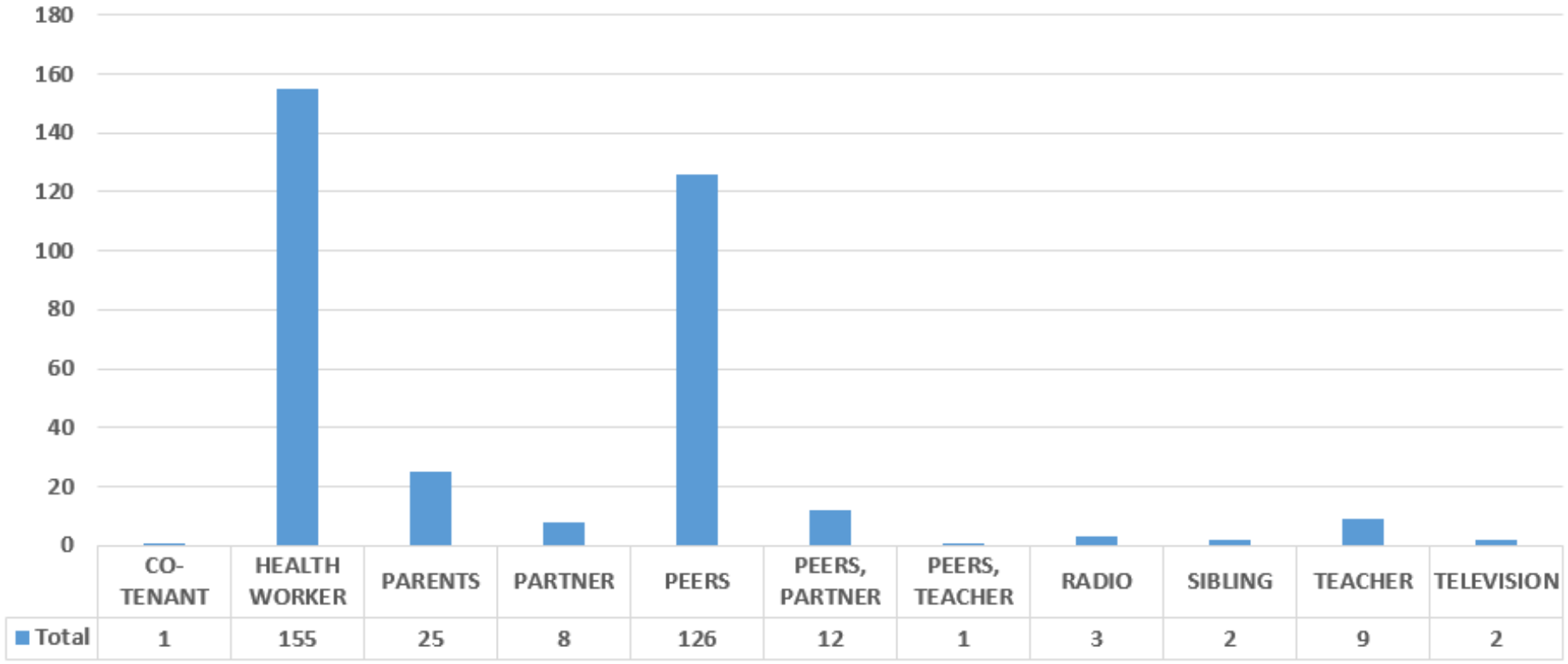

Figure 4.1 - Clustered Column Count of Source(s) of Family Planning Information

A total of 115 (45.06%) of the female adolescents mentioned health workers as their main source of family planning information. This was followed by 126 (36.63%) of them citing their peers as their source of information on contraceptive use. Very few mentioned their parents (N = 25 – 7.27%), teachers (N = 9 – 2.62%) and partners (N= 8 - 2.33%) (See Figure 4.1).

Using the following knowledge items from the survey instrument as a proxy, a Principal Component Analysis (PCA) was conducted to classify the knowledge and awareness levels of the respondents on family planning. Knowledge level was dichotomized using the 50th percentile: scores below the median value were classified as "Low-Level Knowledge and Awareness – 191 (55.52%)", whilst those above were classified as "High-Level Knowledge and Awareness -153 (44.48%)"

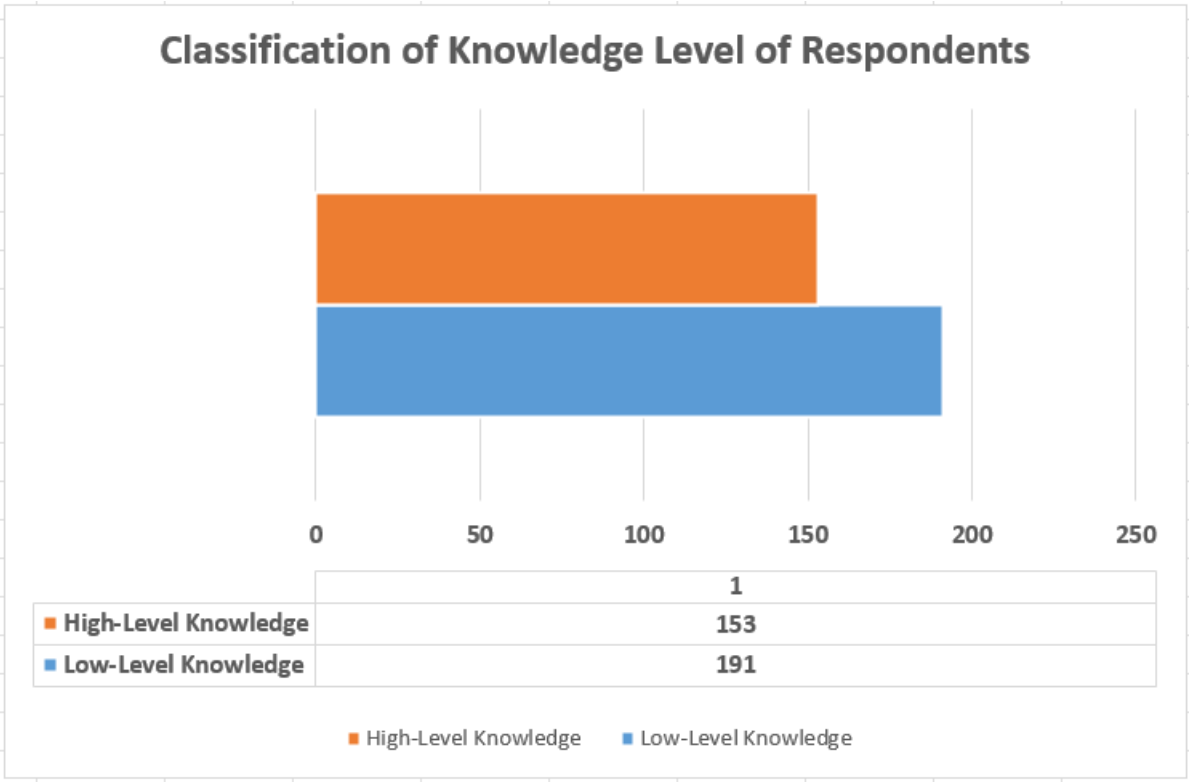

Figure 4.2 - Classification of Knowledge and Awareness levels

Table 4.2 below shows the means, standard deviations, and factor scores derived for each item in the first linear component from the PCA. The Kaiser-Meyer-Olkin (KMO) test output was also included in the table. The KMO test displays the measure of sampling adequacy. KMO takes values between 0 and 1, with small values indicating that overall, the variables have too little in common to warrant a PCA analysis. Kaiser put the following values on the results: 0.00 – 0.49 "unacceptable", 0.50 – 0.59 "miserable", 0.60 – 0.69 "mediocre", 0.70 – 0.79 "middling", 0.80 – 0.89 "meritorious", and 0.90 – 1.00 "marvelous" (Glen, 2016). Since the KMO results below have an overall value of **0.8010**, it can be concluded that the survey items measuring knowledge and awareness were meritorious and adequate.

Table 4.2 - Scoring weights and the KMO measure of sampling adequacy derived from PCA

Knowledge Item	Component 1	Unexplained Variance	Mean	SD	KMO
Have you heard of FP?	0.3743	0.5229	0.0406	0.1978	0.9728
Are you aware of FP methods?	0.5231	0.06851	0.0872	0.2825	0.7485
Have you heard of modern FP	0.5247	0.0626	0.0901	0.2867	0.6934
Do you know where to get contraceptives?	0.5158	0.09408	0.0988	0.2988	0.8808
A girl can become pregnant after the first	0.1616	0.9111	0.1104	0.3139	0.7219

time having unprotected sex					
The use of modern contraceptives provides 100% protection	0.1112	0.9579	0.4680	0.4997	0.7671
Should men worry about contraceptive use?	0.0799	0.9783	0.4651	0.4995	0.6725
Women who use contraceptives may become promiscuous	0.0005	0.9998	0.5668	0.4962	0.4016
					Overall – **0.8010**

4.2.3 Quality of Care at Health facilities Accessed by Respondents

This section presents findings on the quality of care reported by respondents who accessed a health facility for family planning services. Out of the 344 total respondents, only 18 (5.23%) were dissatisfied with the attitude of healthcare personnel during visits, and 8 (2.33%) were likewise not satisfied with the general FP services offered by their primary care providers. Two hundred and seventy-seven (80.52%) indicated that the environment where family planning services were provided ensured privacy. The reported average time spent in the facility on each visit was 3 to 5 hours (97.09%). About 74 (22%) reported having complications after using the FP method (Table 4.3).

Table 4.3 - Quality of Care at Health facilities

Variables	Category	N (%)
Attitude of Healthcare Personnel During Visit	Very Satisfactory	142 (41.28)
	Satisfactory	184 (53.49)
	Not Satisfactory	18 (5.23)
Level of Satisfaction Derived from Service Providers	Very Satisfied	116 (33.72)
	Satisfied	220 (63.95)
	Not Satisfied	8 (2.33)
Environment Ensured Privacy	Yes	277 (80.52)
	No	67 (19.48)
Average Time Spent at the facility	Less than 3 hours	10 (2.91)
	3 to 5 hours	334 (97.09)
Complications after use of FP method	Yes	74 (21.51)
	No	270 (78.49)
Complications resolved by the primary care provider	Yes	271 (78.78)
	No	73 (21.22)
How quickly were issues resolved?	Very Quickly	129 (37.50)
	Quickly	196 (56.98)
	Not Quickly	19 (5.52)

N = Total Frequency; % - Percentage

4.2.4 Utilization of Family Planning Services

This section provides chart descriptions of the level of utilization of family planning by female adolescents in the Biakoye District.

The commonly reported modern contraceptives used in the past were: implants and injectables – 87 (49.71%), pills 75 (42.86%), female condoms – 12 (6.86%), emergency contraceptives – 1 (0.57%), and IUD – 1 (0.57%) (See figure 4.3 below).

Furthermore, currently used modern contraceptive methods mentioned were: injectables – 51 (39.23%), implants – 50 (38.46%), pills – 27 (20.77%), female condom – 1 (0.77%) and the Lactation Amenorrhea Method (LAM) – 1(0.77%) (See figure 4.4 below).

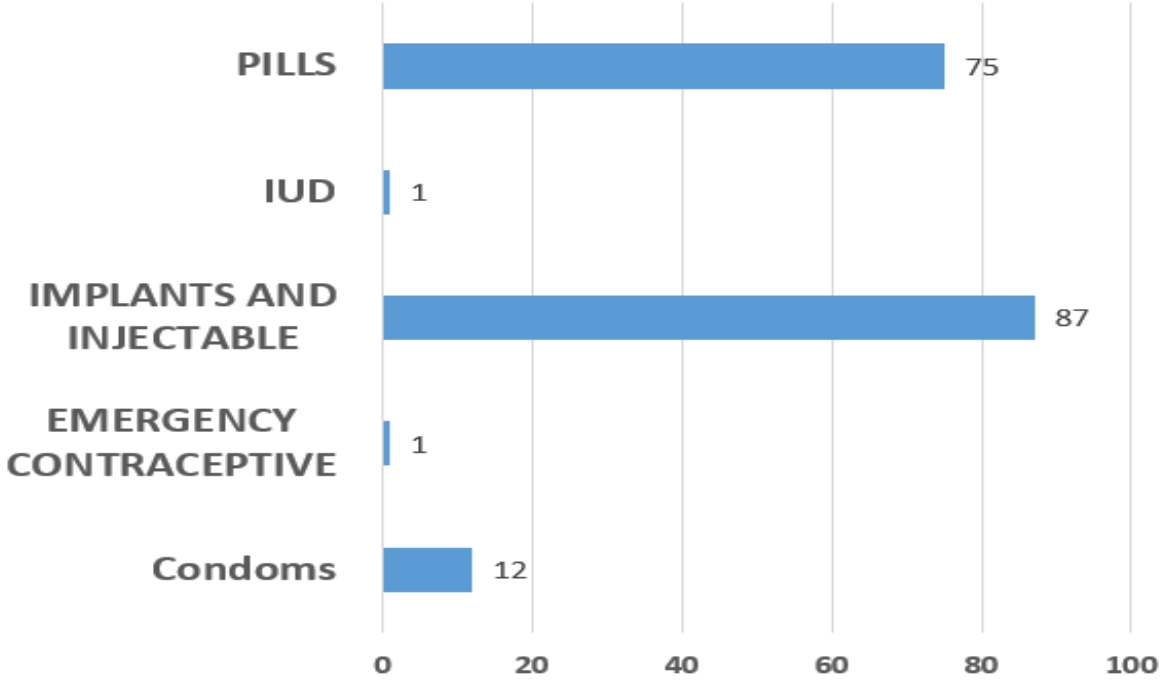

*Figure 4.3 - Clustered Bar Count of Modern FP Methods **Ever** Used*

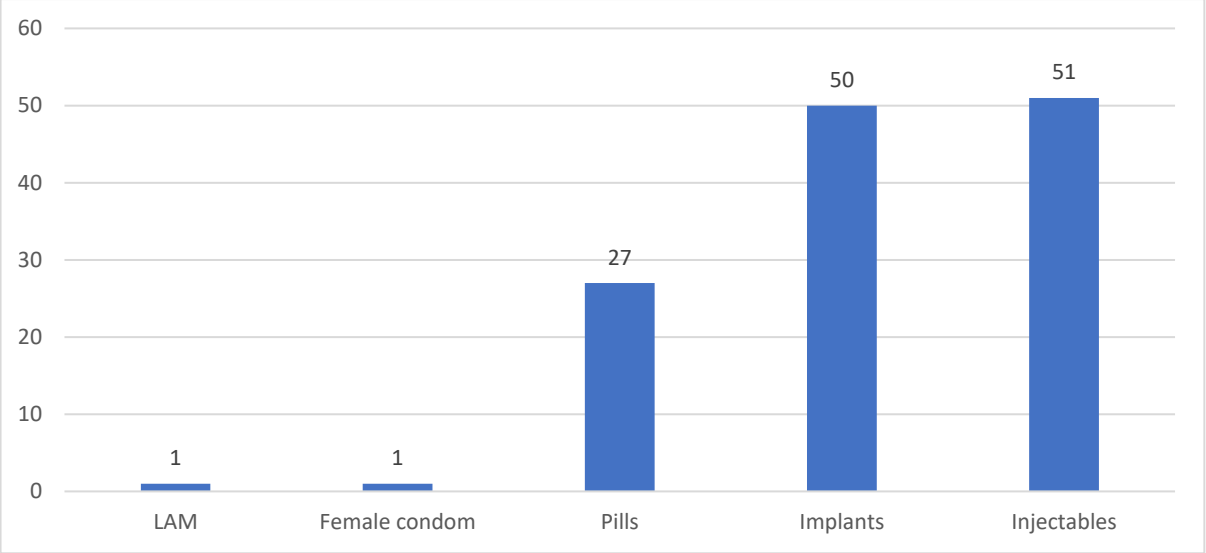

Figure 4.4 - Clustered Column Count of Currently Used Modern Contraceptive Methods

Figure 4.5 below shows the count of reported places in the community where female adolescents get modern contraceptives from. From the survey responses, 122 (69.31%) indicated health facilities and drug shops as places to access modern contraceptives. For 46 (26.26%) of them, drug stores or pharmaceuticals were the only known places they could access modern contraceptives. Health workers were also cited by 7 (0.039%) as a go-to place for contraceptives.

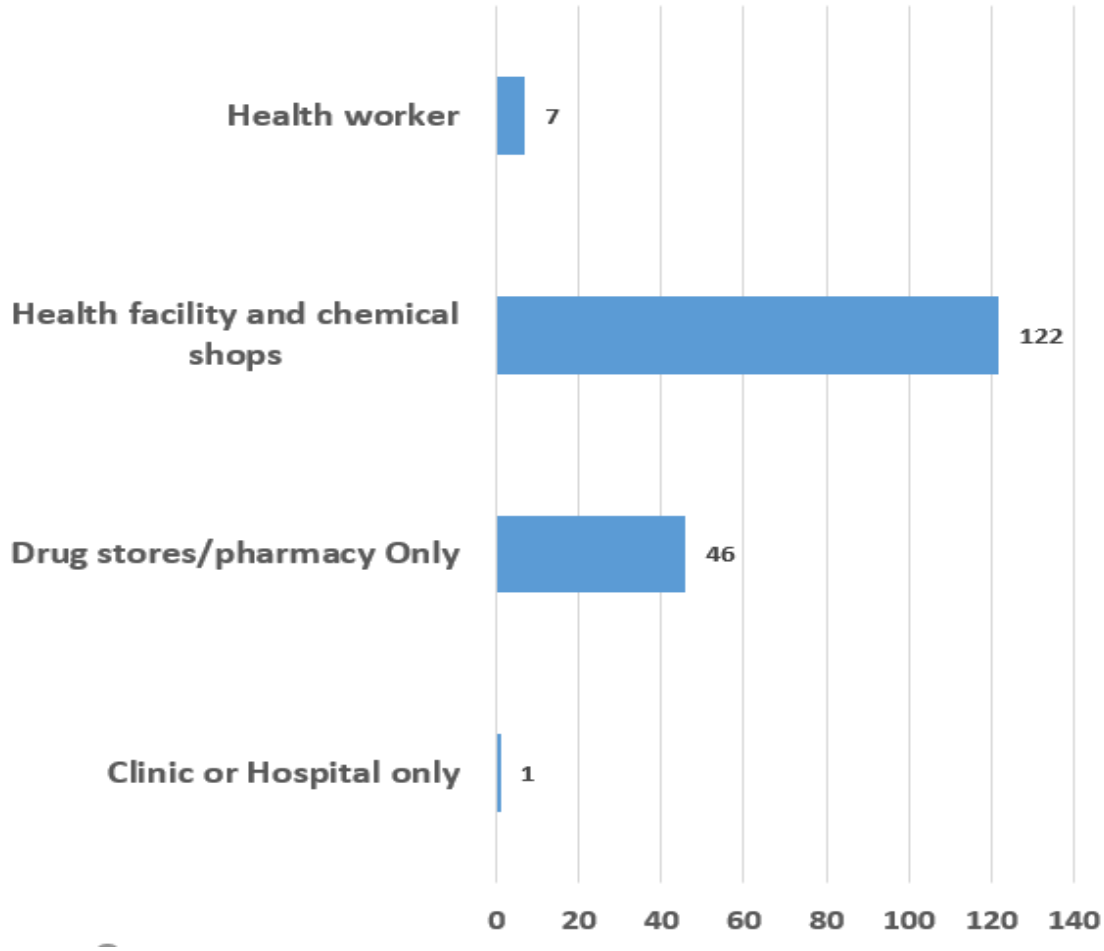

Figure 4.5 - Clustered Bar Count of Reported Sources of Modern Contraceptives

Only 39 (22.9%) people mentioned being on a contraceptive method for at least 2 years (See figure 4.6 below). The majority of them, 118 (69.41%) indicated that their longest duration was not even up to a year.

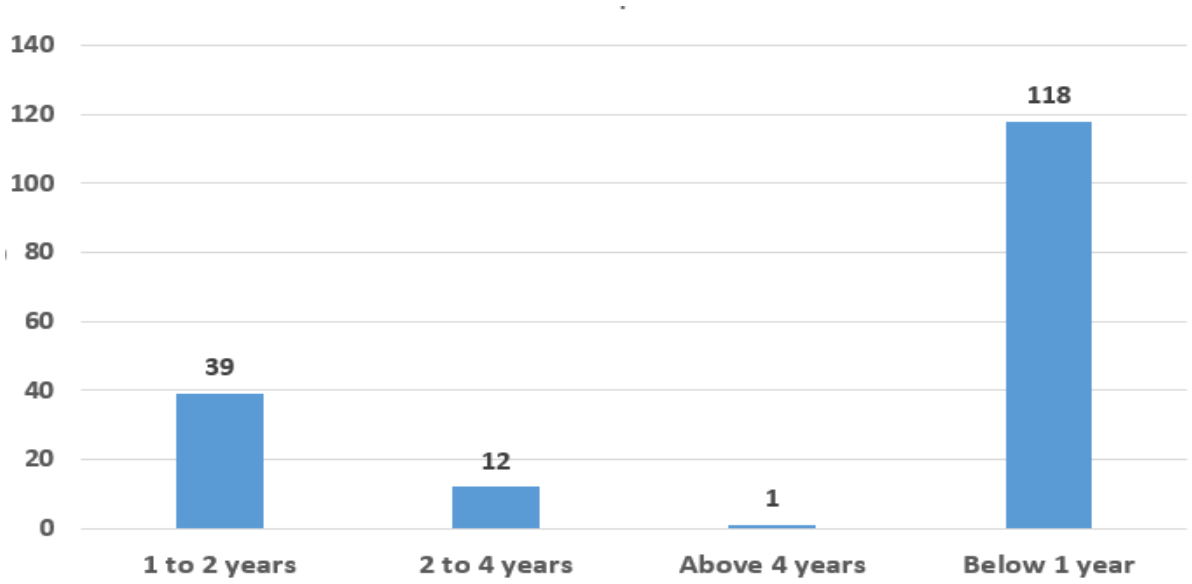

Figure 4.6 - Reported Duration of Contraceptive Usage

In figure 4.7 below, the female adolescents showed the various reasons why they had to discontinue using their family planning method. And they were mainly due to the side effects of the method.

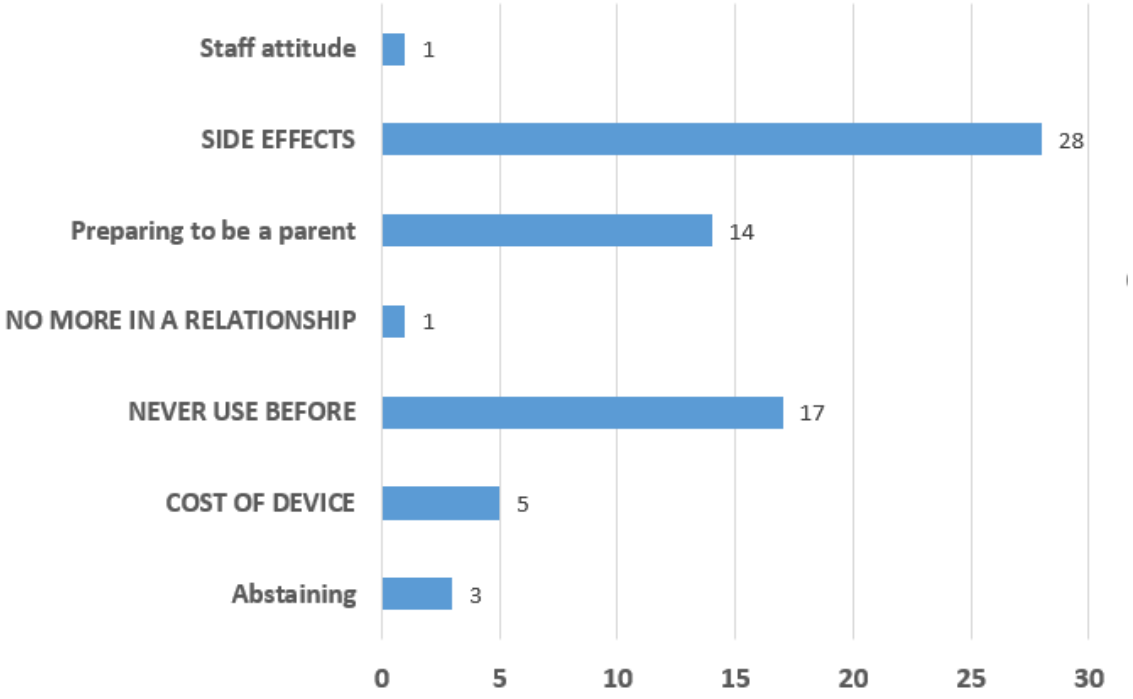

Figure 4.7 - Reported Reasons for Discontinued Used of FP Method

Furthermore, 214 (62.21%) were currently not on any contraceptive method (figure 4.8)

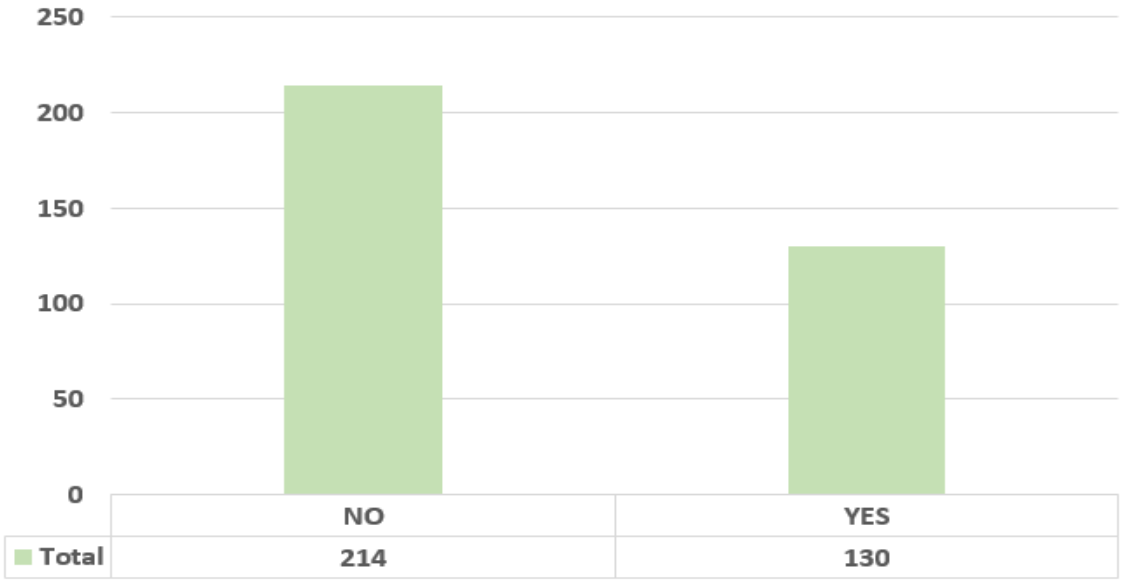

Figure 4.8 - Graph of Respondents Currently Using an FP Method

4.3 Bivariate Analyses of Explanatory and Dependent Variable

The objective of this study was to determine the level of association between selected variables and family planning utilization by female adolescents in Biakoye District. As such, socioeconomic factors, knowledge level of respondents, as well as health facility factors were analysed for their independent influence on the current use of modern contraceptive methods by the female adolescents. In the bivariate analyses below (table 4.4), selected variables (Age group, marital status, accommodation, educational level, and ownership of a health insurance card) indicated statistically significant independent associations with the current use of modern contraceptives.

Table 4.4 - Chi-Square test of Variables Independently Associated with Current Utilization of FP Methods

Variable	Currently Using an FP Method (N=344)		P-value
	Yes - N (%)	**No – N (%)**	
Age Group			
14-16 years	28 (24.35)	87 (75.65)	<0.001**
17-19 years	102 (44.54)	127 (55.46)	
Community			
Abotoase	27 (32.14)	57 (67.86)	
Bowiri	14 (26.92)	38 (73.08)	0.184
Kwamekrom	35 (44.87)	43 (55.13)	
Nkonya	32 (41.03)	46 (58.97)	
Worawora	22 (42.31)	30 (57.69)	
Marital Status			
Cohabiting	39 (52.00)	36 (48.00)	0.006 **
Married	15 (45.45)	18 (54.55)	
Single	76 (32.20)	160 (67.80)	
Accommodation			
Guardian	14 (28.57)	35 (71.43)	

Parents	57 (32.39)	119	0.011**
Partner	52 (50.00)	(67.61)	
Self	7 (46.67)	52 (50.00)	
		8 (53.33)	
Ethnicity			
Akan	29 (36.25)	51 (63.75)	
Ewe	75 (38.89)	113	0.748
Ga	9 (30.00)	(60.11)	
Guan	17 (36.96)	21 (70.00)	
		29 (63.04)	
Educational Level			
None	13 (59.09)	9 (40.91)	0.042**
Basic	73 (33.80)	143	
Secondary	44 (41.51)	(66.20)	
		62 (58.49)	
Religion			
Christian	118 (37.11)	200	
Muslim	10 (45.45)	(62.49)	0.648
Traditional	2 (50.00)	12 (54.55)	
		2 (50.00)	
Ownership of NHIS card			
Yes	104 (41.60)	146	0.017**
No	26 (27.66)	(58.40)	
		68 (72.34)	

Attitude of Healthcare Personnel During Visit			
Very Satisfactory	55 (38.73)	87 (61.27)	0.662
Satisfactory	70 (38.04)	114	
Not Satisfactory	5 (27.78)	(61.96)	
		13 (72.22)	
Level of Satisfaction Derived from Service Providers			
Very Satisfied	47 (40.52)	69 (59.48)	0.603
Satisfied	81 (36.82)	139	
Not Satisfied	2 (25.00)	(63.18)	
		6 (75.00)	
Environment Ensured Privacy			
Yes	109 (39.35)	168	
No	21 (31.34)	(60.65)	0.225
		46 (68.66)	
Average Time Spent at the facility			
Less than 3 hours	4 (40.00)	6 (60.00)	
3 to 5 hours	126 (37.72)	208	0.884
		(62.28)	
Complications after use of FP method	27 (36.49)	47 (63.51)	
Yes	103 (38.15)	167	0.794
No		(61.85)	

Complications resolved by the primary care provider			
Yes	100 (36.90)	171	0.512
No	30 (41.10)	(63.10)	
		43 (58.90)	
How quickly were issues resolved?			
	46 (35.66)	83 (64.34)	
Very Quickly	76 (38.78)	120	0.786
Quickly	8 (42.11)	(61.22)	
Not Quickly		11 (57.89)	

P-value significant at 0.05 level; N = Total Frequency; % - Percentage

Using findings from the bivariate analyses, the next section shows a multivariable logistic regression model constructed to predict the factors influencing family planning utilization by female adolescents in the Biakoye District.

4.4 Factors Contributing to the Utilization of Family Planning

In the model below (table 4.5), some variables measuring the quality of care at health facilities were dropped due to multicollinearity, which inherently undermines the reliability of the statistical inferences sought by this study. This notwithstanding, having a 0.7045 or 70.45% area under the Receiver Operating Characteristic Curve (ROC) (figure 4.9) and an overall P-value of 0.0025, the model was deemed acceptable and reliable. Typically, a ROC of 0.5 indicates no distinction, 0.7 to 0.8 indicates acceptable performance, 0.8 to 0.9 indicates great performance, and more than 0.9 indicates remarkable performance (Mandrekar, 2010).

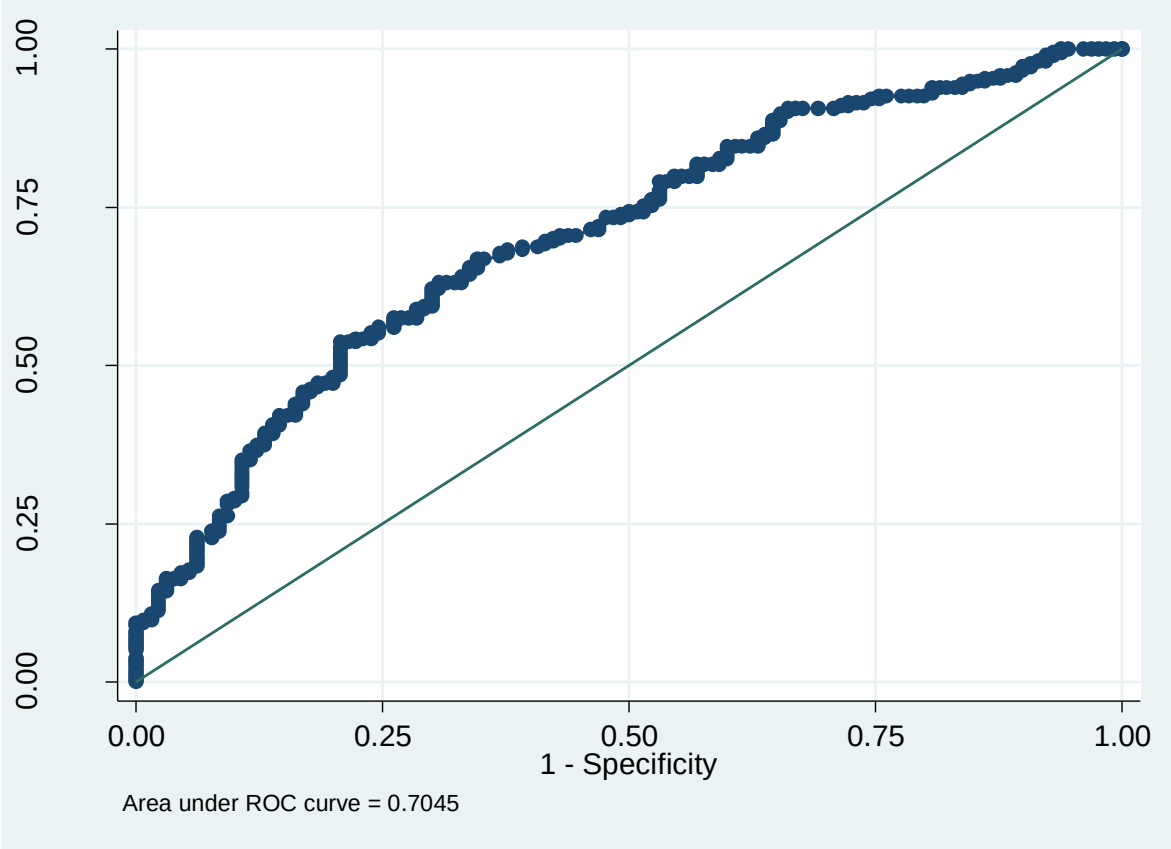

Figure 4.9 - Post estimation test of the Model

Table 4.5 - Multivariable Logistic Analysis of the Utilization of Family Planning by Female Adolescents

Variable	Adjusted Odds Ratio (AOR)	95% Confidence Interval (CI)	P-Value
Knowledge Level			
Low-Level Knowledge (Ref.)			
High-Level Knowledge	1.667	1.016 - 2.735	0.043**
Age Group			
14-16 years (Ref.)			

17-19 years	0.433	0.238 - 0.788	0.006**
Community			
Abotoase (Ref.)			
Bowiri	1.034	0.437 - 2.444	0.938
Kwamekrom	0.427	0.203 - 0.899	0.025**
Nkonya	0.445	0.198 - 0.997	0.049**
Worawora	0.493	0.214 - 1.132	0.096
Marital Status			
Cohabiting (Ref.)			
Married	2.576	0.897 - 7.396	0.079
Single	4.225	0.695 - 25.661	0.117
Accommodation			
Guardian (Ref.)			
Parents	0.772	0.364 - 1.634	0.499
Partner	1.723	0.274 - 10.816	0.562
Self	0.616	0.168 - 2.254	0.464
Ethnicity			
Akan (Ref.)			
Ewe	0.819	0.442 - 1.517	0.526
Ga	1.612	0.586 - 4.436	0.354
Guan	1.105	0.461 - 2.648	0.823
Educational Level			
None (Ref.)			
Basic	2.854	0.988 - 8.241	0.053
Secondary	3.186	1.009 - 10.055	0.048**

Religion			
Christian (Ref.)			
Muslim	0.612	0.220 - 1.706	0.349
Traditional	0.647	0.072 - 5.780	0.697
Ownership of NHIS Card			
Yes (Ref.)			
No	1.796	1.013 – 3.184	0.045**
Complications after use of FP method			
Yes (Ref.)			
No	0.866	0.467 - 1.604	0.648
Attitude of Health Workers During Visit			
Very Satisfactory (Ref.)			
Satisfactory	0.976	0.591 - 1.610	0.925
Not Satisfactory	1.660	0.515 - 5.349	0.396

***P-value significant at 0.05 level; Ref – Reference group*

From the regression output, utilization of family planning by the female adolescents tend to increase with the knowledge and awareness level of the respondent on contraceptive methods. Respondents with high-level knowledge had 1.667 (95% CI: 1.016 - 2.735) times the odds of utilizing family planning methods compared to their counterparts with low-level knowledge. Similar findings were detected with the highest level of education attained by the respondents; where those with basic level education had 2.854 (95% C1: 0.988 - 8.241) times the odds of utilizing family planning methods compared to their

counterparts that had no formal education. Consequently, those with secondary level education had an even higher odds of 3.186 (95% C1: 1.009 - 10.055) in utilizing family planning methods than their counterparts who had no formal education. Furthermore, the odds of utilizing family planning methods were higher, 1.796 (95% CI: 1.013 – 3.184) among respondents who were not on the health insurance scheme compared to the card-bearing members.

The odds of utilizing family planning methods tend to diminish with the age of respondents and the community where they resided. Female adolescents aged 17 to 19 years had 0.433 (95% CI: 0.238 - 0.788) lower odds of utilizing family planning methods compared to their counterparts aged 14 to 16 years. Also, respondents from Kwamekrom were 0.573 (95% CI: 0.203 - 0.899) times less likely than their counterparts from Abotoase to utilize family planning methods. Likewise, respondents from Nkonya were 0.555 (95% CI: 0.198 - 0.997) times less likely than their counterparts from Abotoase to utilize family planning methods.

CHAPTER FIVE

DISCUSSION

5.1 Introduction

This study aimed to gauge the extent to which female teenagers in Biakoye, Ghana's Oti Region, used family planning. As a result, this chapter analyzes the consequences of the study's findings and has been structured in accordance with the aims, theoretical underpinnings, and consistency of the study's key findings with previous research.

5.2 Utilization of Services

An objective of the study was to ascertain the level of utilization of family planning by female adolescents in the Biakoye District at the Oti region, formerly part of the Volta region. The findings of the study indicated that 37.79% of the sexually active unmarried female adolescents were currently on a contraceptive method. This is congruous with the 2014 Ghana Demographic Health Survey's report on the Volta region (GSS/GHS/ICF, 2015) - a region with the highest prevalence in current use of any method (32%).

According to findings from the study, out of the 344 respondents, 175 had ever used a modern contraceptive method representing 50.9%. However, out of the 175 respondents who had ever used a modern contraceptive method, the study's findings on commonly reported contraceptives put implants and injectables at 87 (49.71%). On the other hand, 126 (36.6%) sexually active female adolescents from the study were currently using modern contraceptive methods; injectables-51 (40.48%); implants-50 (39.68%); female condoms- 1 (0.79%) and pills-23 (18.25%). Side effects also accounted for 28 (40.58%) out of the 69 primary reasons why female adolescents were discontinuing contraceptive use. These findings slightly vary with national estimates on contraceptive use. In the 2017

Maternal Health Survey (MHS), for instance, fear of adverse effects (22.9 %) was the primary reason why female teens did not want to use contraception and stopped using injectables and implants in Ghana (GSS/GHS/ICF, 2018). The MHS further reported that injectables were the most popular option among sexually active unmarried adolescents (8 %), followed by implants and oral pills (6 %). This was consistent with Olika et al (2021) meta-analysis in Ethiopia, where implants and injectable usage among sexually active adolescent females were found to have risen markedly between 2000 and 2016, compared to condom use, which had decreased significantly over the same period. It's also comparable to a study from Kenya and Rwanda (Dennis et al., 2017), which found that injectable contraceptives were typically the most popular among women aged 15 to 24. In Tanzania however, the researchers found that condoms, rather than injectables, have remained the most popular method of contraception among female adolescents since the year 2000 (Dennis et al., 2017).

In an earlier study conducted in Ghana, 41% of 190 sexually active adolescent respondents during their last sexual encounter reported they did not use a condom, 34% did not use any modern contraceptive, and 30 % did not use any family planning method at all (Afenyadu & Goparaju, 2003) . Also, between 1993 and 1998, the proportion of adolescent females who used any contemporary contraceptive technique was roughly the same (5%) and climbed to 6.4% in 2003. It dropped to 5% in 2008 before rising to the level seen (6.3 %) in 2003 in 2014 (UNFPA, 2016). A similar conclusion was made in South Africa (NDOH, 2014), where many women do not utilize contemporary contraceptive techniques despite the benefits. Their usage among women aged 15 to 19 climbed slightly from 6.2% in 1998 to 6.4% in 2003.

However, this story appears to be shifting in the right direction in Ghana, as a recent country profile report on contraception within the context of adolescents' sexual and reproductive lives (WHO, 2020a) showed that 27.2 % of sexually active unmarried adolescent girls (aged 15-19) currently use at least one method of modern contraception. Even though the use of protection at first coitus appears to be increasing, many teenagers still do not use any kind of contraceptive or are not using contraceptives regularly (Abma & Martinez, 2017). One reason might be because they want to start a family. Limited-acting options that are easy to start and stop as needed may be preferred by adolescent girls who desire to defer or space births for a brief period (Todd & Black, 2020).

5.3 Knowledge of Family Planning Services

An objective of the study was to assess the level of knowledge of female adolescents on family planning in the Biakoye District. The results indicated that 55.52% had low-level knowledge and awareness of family planning, whilst 44.48% had a high-level knowledge and awareness of FP. This corroborates a similar study in Mankranso of Ahafo South District in Ghana (Serwaa & Bellua, 2020), where the level of knowledge on contraceptive usage among female adolescents was low. In Tanzania, while an adequate level of knowledge on family planning services was reported among secondary school students, it was still low among female unmarried adolescents (Dangat & Njau, 2013).

Knowledge of contraceptive methods is almost universal in Ghana; 99% of women aged 15-49 have heard of contraceptive method (GSS/GHS/ICF, 2018). This development, however, has not been relatively stable between the two age groups, with young women having a greater rate than teenage girls (UNFPA, 2016). Ghanaian young teenagers have been described as naïve, unaware of the consequences of sexual intercourse; they were even unaware that they may become pregnant as a result of sexual intercourse (Gyesaw &

Ankomah, 2013). During their last sexual encounter, Afenyadu & Goparaju (2003), indicated that some teenagers claimed that drinking soda after intercourse would prevent them from becoming pregnant.

Adolescent girls have the poorest knowledge and usage of contraception (Shah, et al., 2011). Adolescents who begin sexual intercourse before they have the capabilities and skills to protect themselves are more likely to have unplanned pregnancies, unsafe abortions, and STIs (WHO, 2020b). Adolescents and young women are at risk of pregnancy due to a lack of understanding about sex and family planning and the capabilities to put that knowledge into action (UNFPA, 2016). An improved sex and family planning knowledge will minimize not just early and unplanned births, but also STIs such as HIV (Chandra-Mouli, et al., 2014).

5.4 Factors Influencing on Utilization of FP Services by Female Adolescents

Finding the factors impacting female teens' use of family planning was another goal of the study. According to the study's findings, the likelihood that female adolescents will use family planning methods tends to rise with respondents' knowledge and awareness of contraceptive methods as well as their highest level of education, with those with only a basic education having 2.854 times the likelihood of doing so as compared to those without any formal education. More so, those with secondary level education had an even higher odds of 3.186 in utilizing family planning methods than their counterparts who had no formal education. These results are consistent with many studies in Ghana (Nketiah-Amponsah et al., 2012; Nyarko, 2015; Oppong et al., 2020) and beyond (Hounton et al., 2015; Olika et al., 2021; Khan et al., 2012).

In the 2017 MHS in Ghana, contraceptive use was observed to rise with level of education, from 19 % for presently married women without a high school diploma to 34 % for women with a secondary or higher education diploma. Modern techniques are used in a variety of ways, with the largest percentage (27%) being used by women with primary education and the lowest percentage being used by women with no education (17%) (GSS/GHS/ICF, 2018). Recent studies have found that among Ghanaian women of reproductive age, education is a powerful predictor of contraceptive use (Nketiah-Amponsah et al., 2012; Nyarko, 2015; Oppong et al., 2020). Studies conducted in various contexts, such as Ethiopia, Nigeria, Burkina Faso, and Bangladesh, which found that the odds of contraceptive use were lower among female adolescents who had only had primary school were similarly supportive of these findings (Hounton et al., 2015; Olika et al., 2021; Khan et al., 2012). This may be because educated females are more likely to be aware of the contraceptive options accessible to them and to understand the positive benefits contraception has on their lives. Furthermore, they may desire to postpone childbearing in order to achieve their educational goals (Gyesaw & Ankomah, 2013).

The study findings further showed that the odds of utilizing family planning methods tended to diminish with the age of respondents. Contraception usage is reported to vary by woman's age in Ghana. It is lowest among the youngest women aged 15-19 (19%), owing to their early phases of family building, and highest among the oldest women aged 45-49 (18%), some of whom are no longer fertile (GSS/GHS/ICF, 2015). In a recent study by Oppong et al., (2020), When compared to respondents between the ages of 15 and 19, individuals between the ages of 20 and 24 used modern contraceptive techniques at a much higher rate (39 percent vs 27 percent). Nyarko (2015) discovered that older female adolescents in Ghana were more likely than younger female adolescents to utilize contraception. The most likely explanation is that older teenagers are more likely to have

sexual experiences and be exposed to information about family planning alternatives than their younger peers (Paluku et al., 2013). However, younger female teenagers do not insist on using condoms because they are worried about losing their boy companions or depend on their elder partners for financial support (Afenyadu & Goparaju, 2003). There is thus a strong need to pay special attention to younger female adolescents when it comes to awareness creation on contraceptive methods and its uptake.

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

The study's overview, findings, and suggestions are presented in this chapter. The goal of this study was to evaluate how often female teenagers in Ghana's Biakoye District in the Oti Region use family planning. The study's specific objectives were to evaluate the amount of family planning knowledge held by female adolescents, to ascertain the extent to which family planning is used, and to pinpoint the causes of family planning use by female adolescents in the Biakoye District. The research was quantitative and conducted in Ghana's Biakoye District in the Oti Region. 344 female adolescents were employed to gather data via questionnaires. Excel was used to enter the data, which was then exported to STATA version 14.0 for additional analysis. The data were analyzed using descriptive and inferential statistics. While the inferential statistics adopted the Chi-square test and binary logistic analysis, which produced odds ratios with their corresponding 95 percent confidence intervals signifying the level of precision, the descriptive statistics employed frequencies and percentages. The statistical test that was run had two tails, and the significant alpha value was set at 5% ($p< 0.05$).

6.2 Conclusions

The following conclusions can be drawn based on the objectives of the study.

The findings indicated that the majority of respondents, female adolescents, had low-level knowledge and awareness of family planning methods and consequentially, were not currently on any family planning method. Injectables, implants, and pills were the most commonly reported and used modern methods of contraceptives. This suggested a gradual

transition from short to long-term family planning methods among female adolescents. This could be due to a desire to minimize the possibility of childbearing in order to achieve their educational and career goals.

Fear of adverse effects following contraception usage was the primary reason why female teens did not want to use contraception or had stopped its usage. This suggests a gap in educational and promotional activities of family planning programs and activities in the Biakoye District. These hold prospects of demystifying the myths surrounding contraceptive usage and also sustaining the gains so far.

Age group, marital status, accommodation, educational level, and ownership of a health insurance card indicated statistically significant independent associations with the current use of modern contraceptives.

The utilization of family planning by the female adolescents tended to increase with their knowledge and awareness of contraceptive methods and educational level. The fact that utilization of family planning by the female adolescents tended to increase with their knowledge and awareness of contraceptive methods and educational level suggests that education also empowers women to make better decisions concerning their reproductive health.

The odds of utilizing family planning methods, though, tended to diminish with the age of respondents and the community where they resided.

6.3 Recommendations

Based on the aforementioned conclusions drawn from the study, the following recommendations are being made.

1. The Biakoye District Health Directorate should ensure that all female adolescents, sexually active or not, are educated on the benefits of contraceptive usage through all available platforms in the community by empowered healthcare providers.
2. To enhance contraceptive usage among sexually active female adolescents of all age groups, family planning educational and promotional campaigns must be intensified throughout all service outlets by healthcare providers at Biakoye District to create awareness about modern family contraceptives.
3. The Biakoye District Health Directorate and Ghana Education Service should enhance collaborative and partnership efforts aimed at providing age-appropriate reproductive health information to female adolescents. This could be in the form of establishment of adolescent health clubs in schools.

Recommendations for Future Research

A qualitative research approach is suggested to explore the factors influencing the utilization of family planning services by female adolescents. This would provide in-depth details from the perspectives of the respondents themselves in order to better understand and address the personal barriers to contraception usage.

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APPENDICES

APPENDIX 1: ENSIGN GLOBAL COLLEGE IRB APPROVAL

ENSIGN GLOBAL
COLLEGE

OUR REF: ENSIGN/IRB-GM/ET/170 December 17, 2021
YOUR REF:

INSTITUTIONAL REVIEW BOARD SECRETARIAT

Peter Eyram Kuenyefu
Ensign Global College.

Dear Mr. Kuenyefu,

ETHICAL CLEARANCE TO UNDERTAKE POSTGRADUATE RESEARCH

At the General Research Proposals Review Meeting of the *INSTITUTIONAL REVIEW BOARD (IRB)* of Ensign Global College held on Tuesday, November 30, 2021, your research proposal entitled "**Utilization of Family Planning by Female Adolescents at the Biakoye District of the Oti Region, Ghana"** was considered.

You have been granted Ethical Clearance to collect data for the said research under academic supervision within the IRB's specified frameworks and guidelines.

We wish you all the best.

Sincerely,

Dr. (Mrs.) Rebecca Acquaah-Arhin
IRB Chairperson

APPENDIX II: STATEMENT OF ASSENT FOR RESPONDENTS

I have read this assent/consent form, or it has been read and explained to me. I have had the opportunity to discuss this research study with Peter Eyram Kuenyefu and her study staff. I have had my questions answered by them in a language I understand. The risks and benefits have been explained to me. I believe that I have not been unduly influenced by any study team member to participate in the research study by any statement or implied statements. I understand that my participation in this study is voluntary and that I may choose to withdraw at any time. I freely agree to participate in this research study.

I understand that information regarding my personal identity/ that of my relation will be kept confidential. By signing this assent form, I have not waived any of the legal rights that I have as a respondent in a research study.

Respondent's signature _____ or Thumb

Date _____

(Day / month / year)

APPENDIX III: STUDY QUESTIONNAIRE

QUESTIONNAIRE ON THE UTILIZATION OF FAMILY PLANNING BY FEMALE ADOLESCENTS AT BIAKOYE DISTRICT OF THE OTI REGION

Please tick the appropriate box

SECTION A- SOCIO-DEMOGRAPHICS

1) Age: ……
2) Which Community are you from? .....
3) Marital status: Single ☐ Marr☐ Cohabiting ☐ Widowed ☐
4) Who do you stay with?

   Parents ☐

   Partner ☐

   Guardian ☐

   Self ☐
5) Ethnicity: Akan ☐ Ga☐ Ev☐ Others please specify

   …….
6) Highest Educational history:

   None ☐

   Basic ☐

   Secondary/Middle Sch. ☐

   Vocational ☐

   Tertiary ☐

7) Religion:

Christian ☐

Muslim ☐

Traditional ☐

No religion ☐

Other specify ……..

8) Do you own a valid NHIS card? Yes ☐ No ☐

SECTION B – KNOWLEDGE AND AWARENESS ABOUT FAMILY PLANNING

9) Have you heard of Family Planning? Yes ☐ No ☐ **If "No" skip to question 18**

10) If 'Yes' in (9) above, where have you heard about Family Planning?

Peers ☐

Parents ☐

Partner ☐

Health Worker ☐

Radio ☐

Teacher ☐

Drug Store ☐

Other, specify ……

11) Are you aware of Family Planning methods?

Yes ☐ No ☐ **If No skip to question 18**

12) If Yes in '11' above, tick the following that are applicable;

Modern Family Planning/Contraceptive Method ☐

Traditional Family Planning/Contraceptive Method ☐

Future Family Planning/Contraceptive Method ☐

13) Have you heard of Modern Family Planning/Contraceptive Method?

A. Yes ☐ B. No ☐

14) If Yes in question '13' above, where did you hear this from?

A. Radio ☐

B. Peers ☐

C. Parents ☐

D. Partner ☐

E. Health worker ☐

F. Teacher ☐

G. Family members ☐

H. Other (s) specify……

15) If YES in question '13' above, tick from the list the methods that you have heard.

A. Intra Uterine Device (IUD) ☐

B. Pills ☐

C. Female condom ☐

D. Injectable ☐

E. Implants ☐

F. Lactation amenorrhea Method (LAM) ☐

G. Others specify ☐

……

16) Do you know where you can get any of these contraceptives ticked above within the community?

A. Yes ☐

B. No ☐

17) If YES, where?

A. Clinic /Hospital ☐

B. Drug store/Pharmacy ☐

C. Health worker ☐

D. Family planning clinic ☐

E. Peers/ friends ☐

F. Family members ☐

G. Other (s) specify…….

18). Can a girl become pregnant the first time after having unprotected sex?

A. Yes ☐ B. No ☐

19) Do you think the use of modern contraceptives during sexual intercourse provides 100%

protection from becoming pregnant?

A. Yes ☐

B. No ☐

C. Don't know ☐

20) Do you think the use of contraceptives is the decision of the woman and therefore, the man should not worry about it?

A. Yes ☐ B. No ☐

21) Women who use contraceptive may become promiscuous?

A. Yes ☐ B. No ☐

SECTION C; UTILIZATION OF FAMILY PLANNING METHODS

22) Have you ever had sex?

A. Yes ☐ B. No ☐ **If no skip to 27**

23) If YES, how old were you? ……

24) Did you use a condom or any contraceptive?

A. Yes ☐ B. No ☐

25) Have you ever used a contraceptive before?

A. Yes ☐ B. No ☐ **If no, skip to 27**

26) Which of the methods did you use before?

A. IUD ☐

B. Pills ☐

C. Implants ☐

D. Female condom ☐

E. Injectable ☐

F. LAM ☐

G. Other (s), specify…….

27) Are you currently using a contraceptive method?

A. Yes ☐ B. No ☐

28) If YES which one are you currently using?

A. IUD ☐

B. Pills ☐

C. Implants ☐

D. Female condom ☐

E. Injectable ☐

F. LAM ☐

G. Other, specify……..

29) If NO in question 27 above, why have you stopped using?

A. To become pregnant ☐

B. Side effects ☐

C. Cost of device ☐

C. Others, specify.....

30) Where in the community do you get these modern contraceptives from?

A. Clinic/Hospital ☐

B. Drug store/Pharmacy ☐

C. Health worker ☐

D. Peers ☐

E. Partners ☐

F. Family planning clinics ☐

G. Other (s), specify……

31) How long have you been using modern contraceptives? Specify ……..

SECTION D: QUALITY OF CARE AND HEALTH FACILITY FACTORS

(*Applicable only if respondent has ever accessed a health facility for family planning services)*

32) How would you describe the attitude of healthcare personnel during Family Planning consultation?

A. Very Satisfactory ☐

B. Satisfactory ☐

C. Not Satisfactory ☐

Other, please specify …….

33) How would you describe the level of satisfaction you derived from the services provided during Family Planning?

A. Very Satisfied ☐

B. Satisfied ☐

C. Not Satisfied ☐

Other, please specify ……

34) Would you say the environment where family planning services were provided ensured privacy?

A. Yes ☐ B. No ☐

On the average, how much time have you spent in the facility on each visit?

Less than 3 hours ☐

☐

3 – 5 hours ☐

More than 5 hours

35) Were there complications after you have used a family planning method?

Yes ☐ No ☐

36) Have the complications been resolved by your primary healthcare provider?

Yes ☐ No ☐

37) How quickly were they resolved, if 'Yes' in (39) above?

Very Quickly ☐

Quickly ☐

Not Quickly ☐

APPENDIX IV: PLAGIUARISM CHECK REPORT

UTILIZATION OF FAMILY PLANNING BY FEMALE ADOLESCENTS AT BIAKOYE IN THE OTI REGION OF GHANA

ORIGINALITY REPORT

11%	9%	3%	4%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	ugspace.ug.edu.gh Internet Source	2%
2	www.ncbi.nlm.nih.gov Internet Source	1%
3	dhsprogram.com Internet Source	1%
4	Submitted to Mount Kenya University Student Paper	<1%
5	Submitted to University of Ghana Student Paper	<1%
6	erl.ucc.edu.gh:8080 Internet Source	<1%
7	Submitted to University of East London Student Paper	<1%
8	researchonline.jcu.edu.au Internet Source	<1%
9	Submitted to ebsu Student Paper	<1%