

UNIVERSITY OF GHANA

SCHOOL OF PUBLIC HEALTH

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**EMERGENCY CONTRACEPTIVE USE AMONG FEMALE SENIOR HIGH SCHOOL
STUDENTS IN THE LA DADE- KOTOPON MUNICIPAL AREA,**

ACCRA-GHANA

BY

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DECLARATION

Except for specific references which were duly acknowledged, I declare that this work is the result of my own effort and it has not been submitted either in part or whole for any other degree elsewhere.



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DEDICATION

I dedicate this work to God for his support, and also to my mother Mrs. Charlotte Hagan.



ACKNOWLEDGEMENTS

I wish to offer my profound gratitude to God for bestowing His hands on me in completing this research successfully. I am also grateful to my supervisor, Professor Juliana Yartey-Enos for her guidance throughout this work. I am thankful to the staff and Faculty of the Department of Population, Family and Reproductive Health of the School of Public Health for all the knowledge they have imparted in me.



ABSTRACT

Background: Access to reliable and secure birth control methods is necessary to improve the reproductive health of young women in developing countries. The use of contraception is crucial in preventing unwanted pregnancy and unsafe abortions given the increase in teenage sexual activity and the decline in the age of first sex in low-income countries. In Ghana, younger women between the ages of 15 to 19 are more likely to die from complications relating to abortion. Unsafe abortion accounts for 20.7% of all pregnancy-related deaths, making them the second most common cause of mortality overall. With most teenagers engaging in sexual activity before the age of 17, adolescent reproductive health and family planning services that meet the needs of this population are critical. Emergency contraceptives use among sexually active young women offers potential solutions by providing convenient, on-demand, and confidential method of preventing unintended pregnancy after unprotected sex, contraceptive failure, or sexual assault. However, there are challenges surrounding its use with significant ramifications for young adolescents.

Objective: The aim of this study was to determine the knowledge, prevalence and factors influencing emergency contraceptives use among female Senior High School students in the La Dade- Kotopon Municipality of the Greater Accra region of Ghana.

Methods: A quantitative cross-sectional study was conducted at La Dade-Kotopon Municipal Area with 269 randomly selected Female Senior High School (SHS) students. Factors contributing to emergency contraceptive use were assessed using multiple binary logistic regression model with generated odds ratios and their respective confidence intervals and a p-value of less than 0.05. This was considered to be statistically significant. All statistical analyses were conducted using Stata version 17 (StataCorp, College Station, Texas). Ethical clearance was obtained from GHS-ERC with reference number GHE-ERC-080/04/24.

Results: The study considered 269 respondents (all female SHS students) in the final analysis. The findings showed that a majority of the respondents 84.4%; 95% CI: 79.5, 88.3 were aware of emergency contraceptives, and 31.5% (95% CI: 25.7, 38.0) had ever used EC while 47.5% (95% CI: 35.2, 60.2) of those who had ever used EC were still using it. The odds of ECs utilisation was found to be 3.2 times among young adults (20-24) compared to adolescents (10-19) [aOR: 3.2 (1.1, 9.3); p-value=0.036]. Also, the odds of using ECs is 2.3 times among respondents in SHS 3 compared to those in SHS 2 [OR: 2.3 (1.3, 4.1); p-value=0.005]. Furthermore, the odds of utilizing EC is 2.6 and 2.8 times among those with moderate and good knowledge of EC respectively compared to those with poor knowledge.

Conclusion: There is high level of awareness of emergency contraceptive use among female students in the La Dade-Kotopon Municipal Area coupled with high prevalence of use but showed knowledge gaps. The factors that influence the utilisation of ECs among adolescent girls include age, education level, and level of knowledge of ECs. It is therefore recommended that education on emergency contraceptive usage among female senior high students should be strengthened.

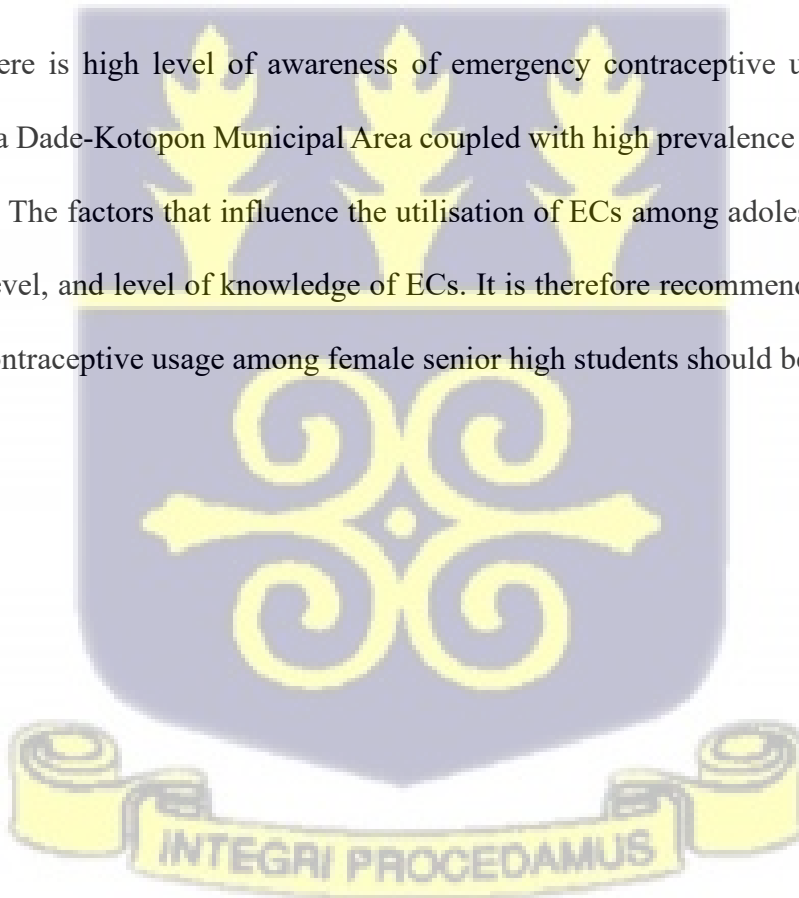


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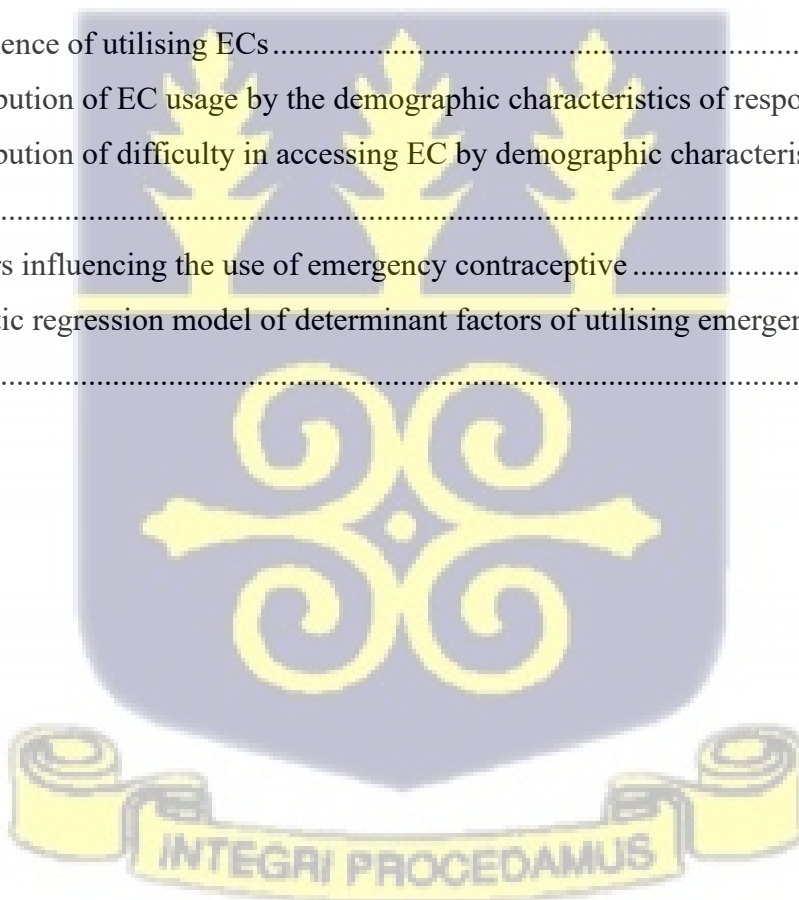
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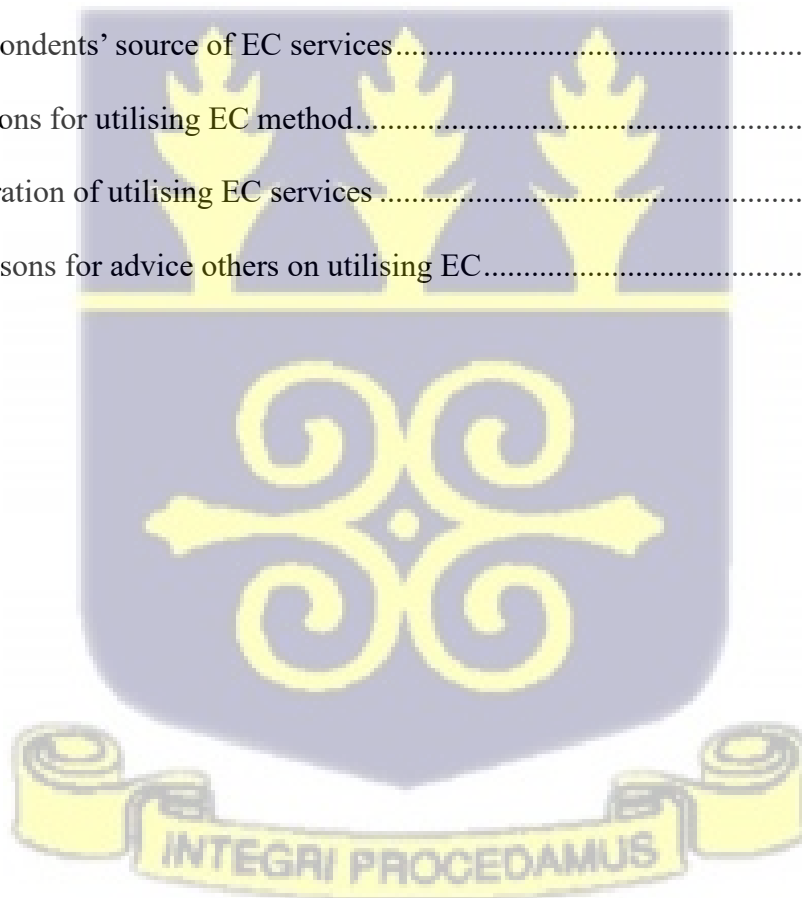
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LIST OF ABBREVIATIONS

AMA	-	Accra Metropolitan Assembly
AIDS	-	Acquired Immune Deficiency Syndrome
CSE	-	Comprehensive Sexuality Education
EC	-	Emergency Contraceptive/ Contraception
FP	-	Family Planning
GDHS	-	Ghana Demographic and Health Survey
GHS	-	Ghana Health Service
GHSERC	-	Ghana Health Service Ethical Review Committee
GSS	-	Ghana Statistical Service
GES	-	Ghana Education Service
HIV	-	Human Immunodeficiency Virus
IUD	-	Intrauterine device
LADMA	-	La Dade-Kotopon Municipal Assembly
LADMEO	-	La Dade-Kotopon Municipal Education Office
LMIC	-	Low, Middle-Income Country
MOE	-	Ministry of Education

MOH	-	Ministry of Health
NGO	-	Non-Governmental Organizations
SDG	-	Sustainable Development Goals
STI	-	Sexually transmitted infections
SSA	-	Sub-Saharan Africa
SRHR	-	Sexual Reproductive Health and Rights
UNFPA-		United Nations Population Fund
WHO	-	World Health Organization



CHAPTER ONE

INTRODUCTION

1.1 Background

Globally, adolescent sexual activity is on the rise, with an early onset trend. Up to 50 percent of teenagers have engaged in sexual activity, with the average age of first sexual encounter being between 14 and 18 years old. (Durowade et al., 2017). Given the wide-ranging consequences, it is critical to comprehend the dynamics of emergency contraceptive use among teenagers. The potential of contraceptives to reduce such risks and provide young people with the information they need to make decisions about their reproductive health emphasizes the significance of these tools for students.

Emergency contraception (EC) is a method used to prevent unintended pregnancy after unprotected sexual intercourse. Using emergency contraception within 72 hours of having sex can reduce the risk of an unintended pregnancy by almost 95%. Women who have been sexually assaulted, mistreated while using contraceptives, failed methods, or given their permission for unprotected, unplanned sex can benefit from EC. (Kwame et al., 2022a).

Many international initiatives are underway to realize the core objective of universal access to sexual reproductive health and rights (SRHR), but one significant barrier still stands in the way of accomplishing Agenda 2030's third goal: unintended pregnancies continue to pose a threat to public health despite efforts to achieve the sustainable development goal of promoting everyone's well-being and leading healthy lives. (Tazinya et al., 2023)

Emergency contraception should be made available to any woman who is worried about her chance of becoming pregnant, regardless of the cycle day of exposure, as it might be challenging to pinpoint the exact infertile period of the cycle. Emergency contraceptives are available in two

varieties. The intrauterine device (IUD) and emergency contraceptive pills which provide another opportunity to prevent unintended pregnancy by being used after sexual activity.

A large number of young, single women who engage in sexual activity without using emergency contraceptives are at a high risk of unintended pregnancies and unsafe abortions. Girls' chances of completing their education are severely impacted by unwanted pregnancies and early childbearing, which force them to drop out of school. Unintended pregnancies among adolescents can lead to disrupted education, compromised socio-economic opportunities, and adverse health outcomes. (Ayamolowo et al., 2024).

Emergency contraceptives help women to have smaller, healthier families, which increases their chances of gaining better jobs, enables them to work longer hours, and enhances their options in life. (USAID, 2005).

In Africa, cultural, economic, and structural factors impact the use of emergency contraceptives. The effects of cultural norms that stigmatize conversations about reproductive health, making it challenging for teenagers to get information or obtain contraception. (Taiwo et al., 2023).

In terms of the use of contraceptives, underdeveloped nations have unmet demands (Agyekum et al., 2022).

Ghana has one of the highest rates of adolescent pregnancies, teen births, teen abortions, and teen mother mortalities worldwide, along with other nations that struggle with a lack of resources (Agyekum et al, 2022). In Ghana there have been attempts to enhance reproductive health services, but obstacles still remain.

The health benefits of properly utilizing effective contraceptives include minimizing maternal-child morbidity and death, preventing adolescent and old-age pregnancies, preventing STIs and recurring pregnancies, and reducing undesired pregnancies and abortions. (Taskin et al., 2020).

Many students have impulsive sexual decisions, Situations of pressure or coercion. Also, using regular contraceptives (like pills or condoms) may be seen as implying that a teenager is sexually active. Students may be reluctant to admit regular contraceptive and underreport it due to fear of judgment. Hence, they are less likely to have planned ahead to use regular contraceptives, making emergency contraception a more realistic and immediate option to prevent unintended pregnancies following unprotected or forced intercourse (Biddlecom et al., 2009).

Among the health benefits of emergency contraception are the prevention of pregnancy in older women who would otherwise be at risk for the same problems, the avoidance of unsafe abortions, and the avoidance of unwanted pregnancies in young girls who would otherwise be at risk for health problems from early childbirth. (World Health Organization, 2020).

1.2 Problem statement

It is estimated that 208 million pregnancies occur worldwide each year, with 46% of them becoming unintended. Annually, more than 14 million unintended pregnancies were reported in Sub-Saharan Africa. (Aragaw et al, 2023).

Unwanted pregnancies are one of the many reproductive health issues that the younger generation is dealing with, and they are particularly problematic in developing nations. (Yazdkhasti et al, 2015).

According to the World Health Organization, over 5.5 million African women get unsafe abortions annually. In addition, young women in Africa between the ages of 15 and 24 account for 59% of all unsafe abortions. (WHO, 2021).

According to WHO estimates, unsafe abortion is a primary cause of maternal mortality, accounting for 46,000 deaths annually. Additionally, it's estimated that 5 million women from developing nations are admitted to hospitals each year due to complications from unsafe abortion practices. (WHO, 2019).

Data from the Ghana Health Service District Information Management System reveals that, between 2015 and 2020, about 542,131 pregnancies occurred in Ghana among teenage girls aged 15 to 19 and 13,444 among young teenagers aged 10 to 14. (Ghana Health Service, 2021)

In Ghana, very few nationally representative estimates of abortion incidence exist. The 2017 Ghana Maternal Health Survey (GMHS) found that 6.7% of women aged 15 – 49 reported having had an abortion in the 5 years preceding the survey; roughly equivalent to 13.4 abortions per 1000 women per year. (Polis CB, et al, 2020). Ghana Health Service data shows that abortions among teenagers totaled 24,108 from 2020 to 2023. Also, out of 7,617 abortion cases reported in 2022, 441 teenagers between 14-15 years aborted babies and for ages 15-19, 7246 abortion cases were recorded. (Ghana Health Service, 2023). In the La Dade-Kotopon municipality, there has been a reduction in Maternal Mortality Ratio, at the end of 2017 were 212 per 100,000 live births. ((La Dade-Kotopon Municipal Assembly, 2019).

An anecdotal account indicates that there isn't much empirical research demonstrating the use of emergency contraceptives by senior high school students in La Dade-Kotopon Municipality. According to a related study by Gbagbo on contraceptives, Basic school students are sexually active and have a woefully unmet need for contraceptive use because of societal factors, stigma and misconceptions that contribute to high rates of unintended pregnancies and illegal abortions

which can hinder Ghana from achieving Sustainable Development Goal 3, which emphasizes the importance of everyone's health and well-being. (Gbagbo, 2020).

With the known dangers associated with teenage pregnancy on the teenagers, their families and the society as well as the efforts being made Ghana Health Service, the La Dade-Kotopon municipal assembly and other non-governmental organizations to drastically reduce, it is quite worrying that teenage pregnancy has persisted over the years in the La Dade kotopon municipality. This warranted the need to conduct this research to investigate the knowledge gaps among female students in senior high schools in the La Dade Kotopon Municipal Area of Accra, Ghana.

1.3 Conceptual framework

The conceptual framework used in this investigation indicates key variables and their hypothesized relationships. This framework seeks to shed light on the various factors influencing the usage of emergency contraception by female senior high school students. A complex interplay of individual, community, and provider factors impacts adolescent girls' use of emergency contraception. Predisposing factors, such as a female student's knowledge of emergency contraceptive methods and the sources of information available to her, significantly shape her preferences for specific contraceptive options. If a young woman is well-informed and receives accurate guidance from trusted sources, she may be more inclined to consider and utilize emergency contraception. (Upadhya et al, 2019).

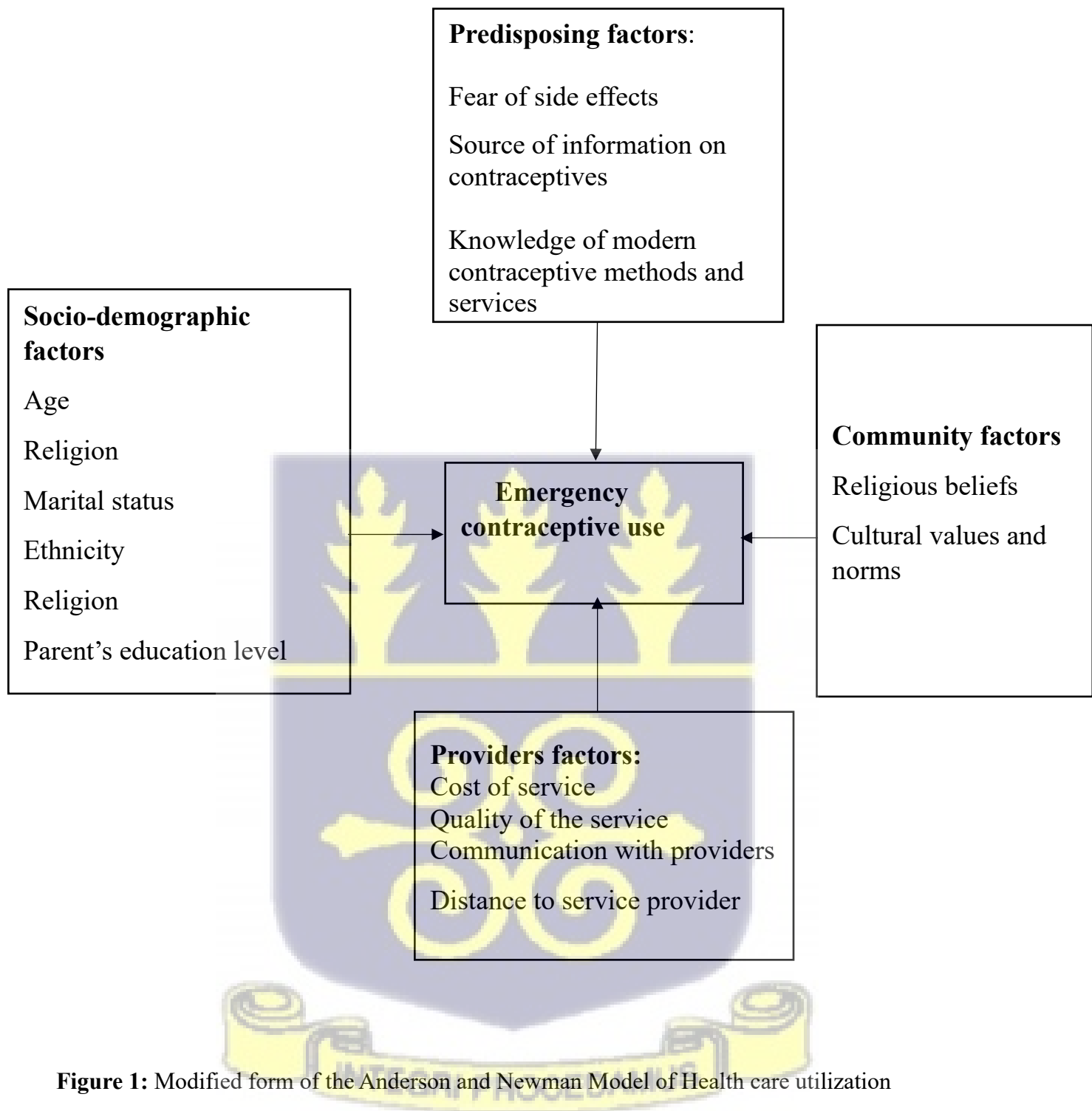
However, community factors also play a critical role in these decisions. Cultural norms, religious beliefs, and deeply ingrained values within a community can profoundly affect a woman's choices regarding family planning. In communities where there is strong disapproval of contraceptive use,

a woman may find it challenging to seek out or utilize emergency contraceptives, even if she believes in their importance.

Additionally, provider factors, such as the quality of services and accessibility of emergency contraceptives, further impact a woman's ability to use these methods. Even if a young woman is open to using emergency contraceptives, barriers such as limited access to services or inadequate support from healthcare providers can hinder her ability to obtain and use EC effectively.

The interaction among these variables, individual knowledge, community attitudes, and provider accessibility ultimately determines the outcome of emergency contraceptive use





1.4 Research questions

1. What is the level of knowledge of emergency contraceptives among female SHS students?
2. What is the prevalence of emergency contraceptive use among female SHS students?
3. What factors influence the use of emergency contraceptives among female SHS students?

1.5 General objectives

To assess the knowledge, prevalence, and factors that influence emergency contraceptive use among female SHS students in the La Dade-Kotopon Municipal Area.

1.6 Specific objectives

1. To determine the level of knowledge of emergency contraceptives among female SHS students.
2. To assess the prevalence of emergency contraceptive use among female SHS students
3. To examine the factors that influence the usage of emergency contraceptives among female SHS students.

1.7 Justification of the study

Governments everywhere exert tremendous efforts to meet the Sustainable Development Goals, especially goals 3 and 4. The findings of the study would provide evidence-based scientific data needed for policy decisions by the Ghana Education Service, Ministry of Health, the La Dade-Kotopon Municipal Assembly, as well as Health NGOs. The Ghana Health Service and the Minister of Women, Children, and Social Protection will be informed of the study's findings to throw light on the prevalence of emergency contraceptive use among female students in the district and the factors that influence their use. Furthermore, the results of the study will help non-

governmental organizations (NGOs) that work in the field of reproductive health for young people to identify areas where their support will be most beneficial. The study will expand on knowledge of the subject and provide a foundation for future investigations into the utilization of emergency contraceptives among young adolescents in different contexts.

1.8 Operation Definition of Terms

Abortion: the termination of a pregnancy through the removal or expulsion of an embryo or fetus

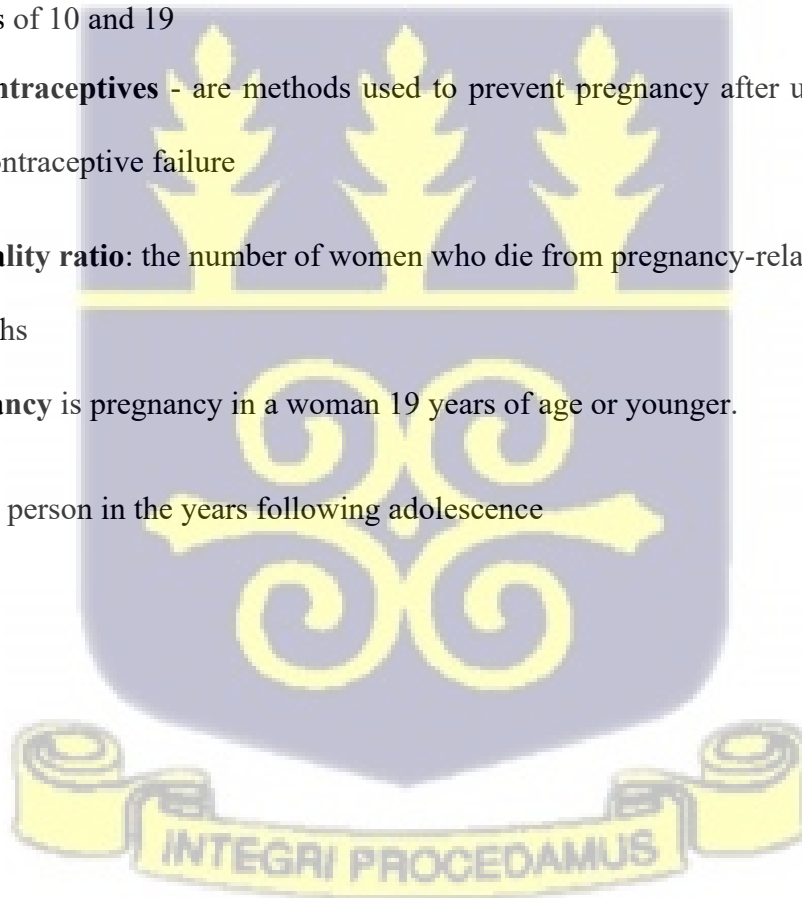
Adolescent: a person who is transitioning from childhood to adulthood, typically between the ages of 10 and 19

Emergency Contraceptives - are methods used to prevent pregnancy after unprotected sexual intercourse or contraceptive failure

Maternal mortality ratio: the number of women who die from pregnancy-related causes per 100,000 live births

Teenage pregnancy is pregnancy in a woman 19 years of age or younger.

Young Adult: a person in the years following adolescence



CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The following headings will guide the conceptualization of the literature review.

- The Importance of Studying Emergency Contraceptive use among Adolescents
- Unintended Pregnancy and Abortion among Adolescents
- Overview of Contraceptives
- Knowledge of emergency contraceptives use among female students
- Prevalence of Emergency Contraceptive among female students
- Factors Influencing the Use of Emergency Contraceptives among female students

2.2 The Importance of Studying Emergency Contraceptive Use among Adolescents

Studying emergency contraceptive use among adolescents is critical due to the unique reproductive health challenges faced by this demographic. Adolescents, defined by the WHO (2021) as individuals aged 10 to 19 years, often experience high rates of unintended pregnancies, which can significantly impact their lives. Unintended pregnancies among adolescents can disrupt educational attainment, limit economic opportunities, and contribute to a cycle of poverty. (Troutman et al., 2020). Understanding how adolescents use emergency contraceptives can inform strategies to mitigate these risks and support healthier outcomes.

Adolescents often lack comprehensive sexual education and access to reproductive health services, which can hinder their ability to make informed decisions about contraception. Studies have shown that many adolescents are unaware of emergency contraceptives or have

misconceptions about their use and effectiveness (Kwame et al., 2022). Addressing these gaps through targeted education and outreach is essential for empowering adolescents to use emergency contraception effectively. Research into the barriers and facilitators of EC use among adolescents can help design interventions that improve their access to and understanding of these critical health resources.

The implications of not addressing the use of emergency contraceptives among adolescents are profound. Unintended adolescent pregnancies can result in adverse health outcomes for both the mother and baby, including higher risks of maternal mortality, low birth weight, and preterm delivery (Zhang et al., 2020). Additionally, teenagers who become parents tend to have lower rates of educational attainment and are more prone to experiencing financial difficulties, which continues the cycle of poverty and restricts their opportunities. By focusing on emergency contraceptive use among adolescents, researchers can contribute to policies and programs that enhance reproductive health services, reduce unintended pregnancies, and improve the overall well-being of young people (Oppong et al., 2021).

2.3 Unintended Pregnancy and Abortion among Adolescents

Unintended pregnancies are unplanned or unexpected pregnancies that can lead to abortions for many reasons. Unwanted pregnancies may result from several factors, such as lack of knowledge about contraception, restricted access to it, a lack of control over sexual activity, and a lack of social support for pregnant women and children. (UNFPA, 2022).

An abortion is the medical process of terminating a pregnancy. (WHO, 2020). Medical, which uses medication and surgical which involves removing the pregnancy through the cervix using gentle suction. Legal restrictions, lack of knowledge, social stigma and socioeconomic conditions are some of the factors that contribute to unsafe abortions. (Atakro et al, 2019).

Unsafe abortion leads to complications which include excessive bleeding, infection, perforation of the uterus, and excessive scraping of the uterus lining. These complications can lead to death, anaemia or secondary infertility. (WHO, 2017).

Global estimates between 2010 and 2014 demonstrated that 45% of all induced abortions were unsafe. (WHO, 2021). About 73 million induced abortions occur worldwide every year and six out of ten (61%) of all unintended pregnancies, 29 % of all pregnancies, end in induced abortion. Adolescent pregnancies are a significant factor in the poor health outcomes that young women and children experience. (WHO, 2024)

In Africa, nearly half of all abortions occur under the least safe circumstances. (Bankole et al, 2020). In most African countries, there are still regulations that restrict access to safe abortion procedures, making abortions a contentious topic. Among teenagers aged 15 to 19, Sub-Saharan Africa has the lowest rates of contraceptive demand (30%) and usage (20%), according to the United Nations Population Fund (UNFPA, 2021).

There is a favorable legal and policy environment regarding the provision of abortion services in Ghana. The Ghana Health Service Comprehensive Abortion Care Policy Standards and Protocols integrated into the national reproductive health policy allow healthcare professionals to provide both surgical and medication abortions (Ghana Health Service, 2021). Nevertheless, there is an unduly high criminal connotation of induced abortion in Ghana. This criminalization has not reduced the practice but rather promoted social stigma, shame, embarrassment and negative provider attitudes (Boah et al., 2019; Adjei et al., 2015; Aniteye and Mayhew, 2019).

According to the Criminal Code, 1960 (Act 29) as amended by PNDCL 102 (1985), abortion is generally criminalized except under specific conditions;

Where pregnancy is the result of rape or defilement of a female idiot or incest and the abortion or miscarriage is requested by the victim or her next of kin or the person in loco parentis, if she lacks the capacity to make such request;

- a. where the continuance of the pregnancy would involve risk to the life of the pregnant woman or injury to her physical or mental health and such a woman consents to it or if she lacks the capacity to give such consent it is given on her behalf by her next of kin or the person in loco parentis;
- b. where there is substantial risk that if the child were born it may suffer from or later develop a serious physical abnormality or disease.

A study in Tamale by EM et al. (2019) found that 22.9% of the 340 study participants had experienced at least one adolescent pregnancy, and a significant number of these adolescents ultimately chose to terminate the pregnancy. The findings highlight how unintended pregnancies among adolescents are often influenced by limited access to contraceptive information and services, social pressure, and economic constraints. In many cases, adolescents fear stigma or rejection from family and community members, leading them to seek unsafe abortion methods, which increases their vulnerability to emotional distress as well as serious health consequences. The study underscores the urgent need to strengthen comprehensive sexuality education, improve access to adolescent-friendly reproductive health services, and address cultural and religious barriers to contraceptive use (EM et al., 2019).

One of the most important strategies for assisting teenagers in achieving sexual health and preventing bad health consequences is timely and age-appropriate comprehensive sexuality education (CSE). The government of Ghana introduced CSE into the curriculum of basic schools

but was opposed because the education sector policies mostly promote an abstinence-only approach. (Guttmacher Institute, 2019).

Lack of access to safe, affordable, timely abortion care poses a risk to women's physical and mental well-being. Deaths from safe abortion are negligible, but areas where unsafe abortions are rampant, mortality rates are high. (WHO,2017).

2.4 Overview of contraceptives

Contraceptive methods are methods used to prevent or reduce the possibility of pregnancy. They also help to plan the optimal time to have a child. Contraceptive methods are generally classified as modern and traditional methods. Modern contraceptive methods include oral contraceptives, injections, implants, intrauterine devices, barrier techniques, and surgical sterilization. Coitus interruptus (withdrawal), lactational amenorrhea (breastfeeding), vaginal lavage, calendar methods, and symptom thermal procedures are examples of traditional methods. (Taskin et al., 2020).

Emergency contraceptives (ECs) are methods used to prevent pregnancy after unprotected sexual intercourse or contraceptive failure. These contraceptives primarily work by blocking ovulation, but they may also change cervical mucus and sperm motility, which makes it more difficult for sperm to reach and fertilize an egg.

Levonorgestrel-based pills are among the most popular forms of ECs and are available over the counter in many countries. These pills can lower the chance of becoming pregnant up to five days after unprotected sexual activity, but they work best when taken within 72 hours of such activity. (Mittal, 2014). Ulipristal acetate, another oral emergency contraceptive, that is prescribed and can

be taken up to 120 hours after sexual activity. Generally, it is believed to be more successful than levonorgestrel-based alternatives, especially later in the five-day window. (Mittal, 2014).

Copper IUDs is another form of emergency contraception. These devices offer continuous contraception for up to ten years and can be inserted by a medical professional up to five days following unprotected sex. ((Salcedo et al., 2023). With a failure rate of less than 1% when inserted within the advised time frame, copper IUDs are more effective than oral pills as emergency contraception. (Salcedo et al., 2023) However, compared to oral ECs, their use is restricted by the requirement for a clinical procedure and higher upfront costs.

In some countries, EC is available over-the-counter, making it easier for people to obtain it without prescription, however, in places where EC is heavily regulated, requires a prescription making access more challenging. Health policies of countries take care of EC under insurance.

In many societies, cultural and religious beliefs about sexuality, reproductive, rights and contraceptives strongly influence attitude towards EC. In culture where contraception is stigmatized, individuals may avoid using EC to prevent social repercussions. (Sedgh et al 2016)

Moreover, in areas with well-established healthcare systems, EC is generally easier to obtain through clinics, pharmacies or hospitals.

To guarantee that ECs can successfully aid in the reduction of unwanted pregnancies, efforts to enhance access and education regarding them are essential.

2.5 Knowledge of emergency contraceptives among adolescents

Lack of awareness of the different forms of contraception are available including EC, is one of the main causes of unintended pregnancies and unsafe abortions. Utilizing family planning contributes to better reproductive health, which enhances the general health and well-being of

women. (Rokicki & Merten, 2018). Clients must receive instruction on how to use their chosen method of contraception correctly and consistently to reap these positive benefits. This can be accomplished by providing women with accurate information through effective counseling methods. Women need to know how to use emergency contraception since seeking therapy requires them to know they can avoid getting pregnant after having sex.

In 2020, (H. Wang et al., 2015) conducted a survey in China that revealed that oral contraceptives and condoms were the birth. Up to 30% of Chinese students lacked information about the significance of contraception, which portended an increase in high-risk sexual behaviors. The usage of contraceptives among college students remained low even with the increased availability of various methods, particularly condoms.

Research conducted among female students at Seto-Semero High School in Ethiopia regarding emergency contraception revealed that 40.5% of the 258 respondents have heard of EC (Tesfa, 2015). According to a study evaluating knowledge about emergency contraceptives, 78.8% of all respondents were aware that ECs existed. (Wanamo et al., 2021).

It is well recognized that developed countries have superior health awareness and information systems than developing ones. (Bagherian, 2022). To increase teenage knowledge and EC usage, awareness and education initiatives should be promoted and implemented, particularly in poor nations.

A study in female senior high students had the level of awareness among participants regarding emergency contraception to be 98.8%. (Konlan et al., 2020). A related study conducted in Kpando, Ghana's Volta region, found that 78.5% of respondents had sufficient knowledge of emergency

contraceptives. Most (97.4%) had previously heard of at least one type of contemporary contraception.(Debuo Der & Tarkang, 2023).

Students must practice safe sex and avoid getting pregnant unintentionally to preserve their health. To guarantee that these goals are met, knowledge of reproduction and contraception is necessary. This indicates the need for assessing the knowledge and factors influencing emergency contraceptive use by female students in senior high school. The gap in knowledge and awareness, negative attitudes towards contraception, and low accessibility need to be addressed.

2.6 Prevalence of Emergency Contraceptive use among female adolescents

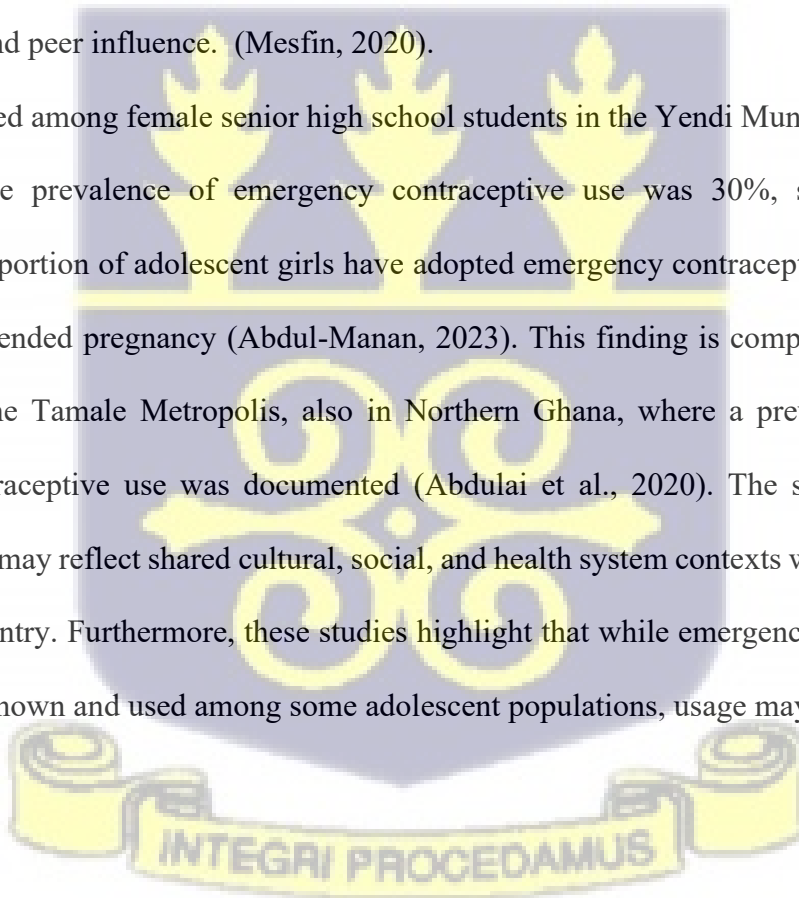
Numerous studies have highlighted the global prevalence of emergency contraceptive use. A comprehensive review by (Kwame et al., 2022) revealed varying rates across different regions, with higher usage in developed countries compared to developing nations. The prevalence of **ever-use** of emergency contraception (EC) among women of reproductive age in sub-Saharan Africa varied widely across studies, from as low as 0 % in some settings to up to 54.1 % in Nigeria.

According to a study done to assess the knowledge and use of contraceptives among female adolescents in selected senior secondary schools in Ife Central Local Government, Osun State, Nigeria, 41.6% of the participants had used emergency contraceptives during their first sexual experience.(Monkam & Adeyemi, 2018).

Similarly, a study conducted on southeast Scotland high school students revealed that 31.4% of the girls who had engaged in sexual activity had used emergency contraceptives. According to a different Swedish study, 28.3% of high school students said they had used EC on their own or with a partner. (Graham et al., 1996).

The high use of emergency contraceptives in developed countries may be caused by adolescents' awareness of EC, as well as cultural norms and national policies regarding reproductive health. In a population-based survey, youths from developing countries, aged 15 to 24, typically reported low prevalence. A study conducted among secondary school students in Ethiopia reported that the prevalence of emergency contraceptive use was 40.5%, indicating a relatively high level of engagement with post-coital contraceptive methods among adolescents. The findings suggest that awareness and availability of emergency contraception may be increasing in some school environments. However, the study also noted that usage was influenced by factors such as access to youth-friendly health services, prior sexual experience, level of knowledge about emergency contraception, and peer influence. (Mesfin, 2020).

A study conducted among female senior high school students in the Yendi Municipality of Ghana reported that the prevalence of emergency contraceptive use was 30%, suggesting that a considerable proportion of adolescent girls have adopted emergency contraception as a means of preventing unintended pregnancy (Abdul-Manan, 2023). This finding is comparable to research carried out in the Tamale Metropolis, also in Northern Ghana, where a prevalence of 36.8% emergency contraceptive use was documented (Abdulai et al., 2020). The similarity in these prevalence rates may reflect shared cultural, social, and health system contexts within the northern sector of the country. Furthermore, these studies highlight that while emergency contraception is relatively well-known and used among some adolescent populations, usage may be influenced by



factors such as availability, peer networks, confidentiality concerns, and attitudes of health care providers.

2.7 Factors influencing emergency contraceptives use

The previous obstacles to obtaining EC are gradually becoming less prevalent. Emergency contraceptives are crucial, but in most of the world, family planning methods are frequently underutilized including Sub-Saharan Africa (SSA).

Globally, socio-demographic factors, accessibility, and awareness all have an impact on the prevalence of emergency contraception use. Research has consistently shown that socio-demographic factors influence the prevalence of emergency contraception. Studies by (Y. Wang et al., 2020) demonstrated that factors such as age, education, and marital status significantly impact EC utilization.

In Sub-Saharan Africa, where access to family planning programs and formal healthcare is still lacking, ECs which are usually purchased from private pharmacies have proven to be essential in preventing unwanted births. (Kwame et al., 2022). Teenagers who engage in sexual activity have been found to use EC at varying degrees.

According to a study by (Subedi et al., 2018) the main influencing factors that prevent adolescents from seeking and using emergency contraceptives such as sociocultural norms and traditions, adolescents' lack of detailed knowledge about contraception methods, insufficient adolescent-friendly services, and health workers' lack of competency to work with adolescents.

According to a Kenyan survey (KDHS, 2012), 23 percent of people who have experience with EC, plan to use it in the future. In Nigeria, a similar pattern was observed, with 37% of respondents

saying they would prefer to use EC in the future, 58% saying they would not, and 5% saying they were unsure. (Babatunde et al., 2016), However, some factors come together to affect the decision-making of emergency contraceptives among students.

Research in the Kassena-Nankana locality in the Upper East region of Ghana revealed the prevalent socioeconomic circumstances may have an impact on the traditional and religious knowledge of fertility behavior (Akweongo et al., 2021).

their need for spacing and 13% not meeting their need for restricting (Yeboah et al., 2022). Adolescents are afraid that if they use emergency contraception, their parents and friends will condemn them. They also think people will gossip and discriminate against them if they find out they use contraception. The stigma associated with contraceptive use, especially among unmarried adolescents, may act as a barrier. Fear of judgment or discrimination can influence decision-making (Dioubaté et al., 2021).

2.8 Religious and cultural beliefs influencing emergency contraceptives use

In general, many cultural and spiritual factors influence how often women in a community use emergency contraceptive. Most cultures maintain this view because they are not well-informed or educated. In many Ugandan communities where having a large family is still regarded as desirable, societal norms that prohibit the use of contraception are reinforced by cultural and religious customs. (Namasivayam et al., 2022).

Many cultures and faiths have strong beliefs regarding sexuality and contraception. The use of emergency contraceptives is appropriate in certain circumstances but not in others. Many could recommend delaying marriage for a longer period. Adolescents, particularly young women, may feel stigmatized if they seek information or services related to EC due to societal expectations about premarital sexual activity (Asiedu et al., 2020). This cultural stigma creates a significant

barrier, as adolescents fear judgment from their communities and families, thereby limiting their willingness to seek out and use EC.

Certain religions, including churches, hold the view that the use of contraception is inappropriate. A study conducted by **(Tilahun, E. 2010)**. on emergency contraceptive use reported that out of 384 women, 7.4% practiced a religion that did not allow them to use emergency contraception.

Gender challenges emanate from cultural factors in most countries across the world, particularly developing nations. Ancient customs in the African sub-Saharan region give husbands control over their wives' procreation. In such cases, obtaining access to emergency contraceptives for a female typically requires the spouse's confirmation.

A study by **(Hakizimana & Odjidja, 2021)** examined how young women's usage of family planning services is influenced by social factors. An explanatory sequential mixed-methods strategy was used to develop the research. Data was gathered using a pre-tested questionnaire from 530 study participants. The study's findings demonstrated that gender differences between spouses, religious conceptualization, ancestors' unfavorable views of family planning, and public perceptions of contraceptives as a whole had all contributed to a breakdown in communication that negatively impacted the respondents' use of family planning services. The researchers concluded that, as the use of emergency contraceptives is based on negative perceptions that are mostly drawn from cultural and religious practices, engaging community actors and local religious leaders may lead to the positive behavioral changes needed to improve its usage.

Cultural and social factors play a vital role in the reproductive health behaviors of adolescents. In many communities, discussing sexual health remains taboo, and adolescents may face stigma when seeking contraceptives (Khan et al., 2021). This stigma can prevent them from accessing

emergency contraceptives when needed, leading to higher rates of unintended pregnancies. By studying the cultural and social dynamics that influence EC use among adolescents, researchers can develop culturally sensitive approaches that reduce stigma and promote healthy sexual behaviors.

2.9 Economic factors influencing emergency contraceptive use

The cost of emergency contraceptives influences the decision-making of students on contraceptive usage. Encouraging students to engage in safe and responsible sexual behavior requires that they have access to reasonably priced and effective contraceptives. Because many adolescents are dependent on their parents or guardians, they may have little financial means. Some teenagers might be reluctant to talk to their parents about their sexual health concerns, and getting contraception without permission might be difficult in some areas, which adds to the expense problem.

According to (Burke & Potter, 2023) financial difficulties which are mostly related to the cost of contraceptives and contraceptive services remain significant obstacles to young people's use of contraceptives. However, the results of a study by (Castle, S. 2003) suggest the young people in her study were motivated to use contraceptives because they believed they were affordable.

Adolescents may also find it difficult to pay for clinic fees and the actual cost of contraceptives, or they may need to miss work or school to visit the location of the service provider to obtain one. (Brittain et al., 2015). Adolescents from wealthier families may have better access to healthcare services, including private clinics and pharmacies where EC is available. In contrast, those from poorer backgrounds may rely on public health facilities that might be under-resourced or located far from their homes, limiting their access to EC (Mulatu et al., 2020).

2.10 Education and Awareness on emergency contraceptives

Teenagers' decisions and understanding can be influenced by having access to comprehensive sexual education programs and being informed of available contraception methods.

Data from Demographic and Health Surveys for nine Latin American nations demonstrates that mothers without a formal education tend to have large families with six or seven kids, which is comparable to the number of children that women in the developed nations have. (Castro Martin; et al., 1996). Women with higher levels of education have few children, a higher socioeconomic status, and a wider range of knowledge than do women with lower levels of education.

Similarly, according to a study by (Kwame et al., 2022), the women who are more knowledgeable about EC are those who have used contraception in the past and have higher educational degrees. Nevertheless, it seems that less educated and non-contraceptive users were less inclined to use the EC strategy.

There was a link between the sex of the respondents and their degree of education, with male students using contraceptives more frequently than female respondents, and a higher likelihood of seeking the usage of contraceptives was found in a (Mohammed et al., 2019) study. Using a cross-sectional methodology and cluster sampling procedures, (Mohammed et al., 2019) investigated factors at the community level that affect young women's use of family planning services in Ghana's Northern Region (Tamale Metropolis). The researchers selected 448 participants for the study and found that women were more likely to take contraception if they had completed secondary education and if their families shared decision-making authority over raising their children.

To reduce obstacles brought on by ignorance, students must be aware that contraceptive services are accessible. Educational programs and awareness campaigns can be very beneficial in teaching students where and how to get contraceptives. Inadequate sex education for students may be partially to blame for their ignorance of available contraceptive methods and where to obtain them. Programs for comprehensive education can include information about contraceptive alternatives and other options.

2.11 Access to a contraceptive provider

Being close to a provider of contraception is essential. Students are more likely to seek emergency contraception if clinics, health centers, or family planning services are easily accessible to them. The treatment students receive from healthcare professionals when they visit hospitals for contraceptive services can be a major barrier to the use of contraceptives, but the absence of nearby services can also be a significant obstacle. (Silumbwe et al, 2018).

There may be limited sources of information on sexual and reproductive health issues among adolescents but several studies conducted in China have demonstrated that the media, which includes books, journals, and other periodicals, movies, and television, serves as students' primary source of information about sex and reproduction. (Lou, C et al,2012).

A study conducted in Osun state of Nigeria revealed that media and friends have the potential to shape the behaviours of adolescents, concerning dating, sex and emergency contraceptive use. (Monkam & Adeyemi, 2018).

In a study conducted by (Babatunde et al., 2016), 31.8% of the 273 participants learned about EC from hospitals or health professionals, and 16.4% learned about EC for the first time from

television. This limited information source may be the reason why students are not as aware of EC as they should be, so teachers, parents and the government should all play a proactive role in educating adolescents about sex from an early age and through the use of appropriate media.

In contrast, a study in Limpopo province of South Africa revealed that parents were the source of information on EC to the respondents. (Ramathuba & Khoza, 2012).

In a global systematic analysis conducted by (D'Souza et al., 2022) using many databases to look into the factors impacting young women's utilization of family planning services, the investigators employed a combination of qualitative and quantitative methodologies in their search. The study's conclusions showed that health professionals' attitudes, actions, and skill levels, as well as the accessibility, cost, availability, and confidentiality of medical services, all had an impact on the use of contraception.

Using a systematic review, (Bain et al., 2021a) investigated the health-system factors influencing young people's use of family planning services in sub-Saharan Africa. The results of the study revealed that negative attitudes held by medical professionals, false beliefs and misconceptions, known side effects of contraceptives, constrictive social norms, and negative attitudes originating from the health systems all hindered young people's use of family planning services.

The health system factors influencing the use of family planning services by young women in Zambia were studied by (Mukanga et al., 2023). In Zambia, young women's usage of services for family planning was found to be impacted by a lack of knowledge and assistance from health professionals, a scarcity of preferred contraceptives, and negative perceptions of health providers, according to the researchers using an exploratory qualitative method.

Healthcare system-related challenges further complicate the use of EC among adolescents. Inadequate training of healthcare providers on youth-friendly services and attitudes towards adolescent contraception can result in poor service delivery (Ghana Health Service, 2019). Some healthcare providers may refuse to provide EC to adolescents or may not offer adequate counselling due to their own biases or lack of knowledge. The low usage of emergency contraception in Ghana is attributed to several health system-related problems, according to research conducted there. These issues include inadequate referral networks, inadequate infrastructure, incompetent medical staff, Lack of specialists, lack of prescription medications and other medical supplies, attitudes of healthcare personnel, and slowness in getting the proper care in hospitals. (Atiga et al., 2023).

2.11 Fear of side effects in using contraceptives

In the last ten years, women in Western nations have resorted to social media sites to vent about their unsatisfactory experiences with the pill. (Johansson et al., 2023).

Adoption of family planning services is also severely hampered by ignorance about contraceptive methods and worries about their efficacy and negative effects.

In a study in Kenya by(Ochako et al., 2015), fear of side effects such as fear of infertility was a major factor that influenced contraceptive use but many fears were based on myths and misconceptions.

There have been misconceptions and anxieties regarding side effects, particularly about the effectiveness of IUCDs, which can include increased risk of cancer, weight gain, and excessive bleeding. Similarly, (Bain et al., 2021b) demonstrated how individual barriers to contraceptive usage among young people were caused by the well-known adverse effects of contraception,

including weight gain, bleeding, headaches, elevated blood pressure, and menstrual cycle disruption. These young people would continue to be reluctant to use contraceptives if their anxieties were not effectively allayed by creative strategies that convinced them of the critical benefits of doing so. This would not be good for the SSA countries' efforts to achieve universal health coverage.

According to a different study by Le Guen 2021, fear was mentioned as a major deterrent to using contraception by both students and medical professionals. In addition, a lot of people worry that using contraceptives will cause menstrual irregularities and change how their bodies look in making them too thin or too fat.



CHAPTER THREE

METHODOLOGY

3.1 Introduction

This section provides an overview of the research methodology that was employed to examine Emergency Contraceptive knowledge and use among Female Senior High School Students in the La Dade-Kotopon Municipality. The research approach, research design, study settings, population size, sample size. Issues on reliability, validity and research instruments used are also included in this chapter.

3.2 Study Areas

This study was conducted in the La Dade-Kotopon Municipal Area of the Greater Accra Region of Ghana.

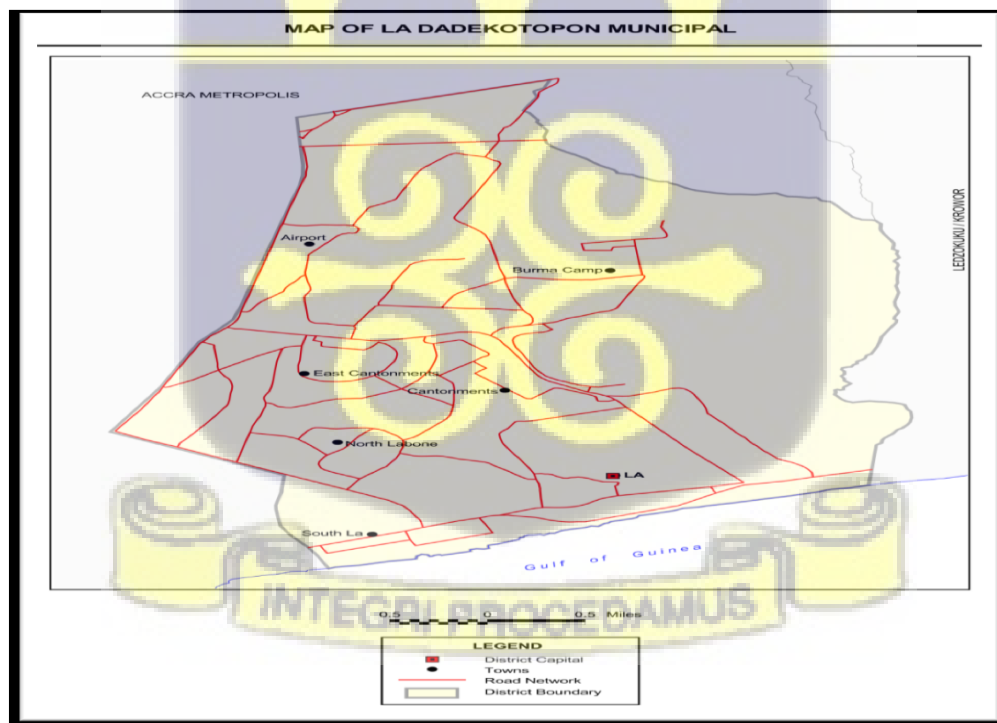


Figure 3.1: Map of La Dade-Kotopon Municipal Assembly (Source: Ghana Statistical Service, GIS)

The La Dade-Kotopon Municipal Assembly covers an area of 36.033 square kilometres. It is bounded on both North and West by the Accra Metropolis, on the East by the Ledzokuku Krowor Municipality, and on the South by the Gulf of Guinea. La-Dade Kotopon comprises seven (7) communities, namely, Airport, Burma Camp, Cantonments, East Cantonments, La, North Labone, and South La. (Ghana Statistical Service, 2014).

La Dade-Kotopon is entirely urban. It is administratively managed by the La Dade-Kotopon Municipality Assembly, which used to be a Sub-Metropolitan Assembly under the Accra Metropolitan Assembly, until June 2012 when it attained a Municipal status.

La-Dade Kotopon has a total population of 183,528 (Ghana Statistical Service, 2010), with females constituting 52.7%. School-aged children constitute the majority of the total population, with children under 15 years of age constituting 44.3%. The Municipality has four Senior High Schools with one boy's school and the others mixed.

Although some of the community's members are fisher folks, the men's primary source of income is running the trotro, or public transportation system, while the majority of the women engage in hawking and small-scale trading through containers and kiosks. La Dade-Kotopon's population is made up of about 60% self-employed people and are mostly into food vending, mechanical works, hairdressing, tailoring and carpentry.

La-Dade Kotopon municipality is confronted with high-rate of unwanted pregnancies and induced abortion among female students which is a public health concern and hence the selected study area.

3.3 Study design

A quantitative approach employing a cross-sectional study design was used for this study.

3.4 Study Variables

The variables for this study include dependent variable which is Emergency Contraceptive use and independent variables age, marital status, level of education, religious beliefs and ethnicity

3.5 Study population

Female students in Senior High Schools in the La Dade Kotopon Municipality were recruited for this study. This is because adolescents are considered to be at a high risk of unwanted pregnancy and unsafe abortions.

3.6 Sample Size Determination

The sample size (n) was estimated based on a 21.1% (0.211) prevalence of modern contraceptive use among women in Accra, Ghana, (Beson et al., 2018) and a statistical error of 5%, and a 95% confidence interval. The sample size of students was calculated using the single proportion population formula by Cochran as follows:

$$n_0 = \frac{Z^2 pq}{e^2}$$

Where: Z is the z-score that corresponds to the desired confidence level for your study, p is the prevalence of modern contraceptive use among women of reproductive age in Ghana, q is the proportion without modern contraceptives, e is the acceptable sampling error and n is the desired sample size. A non-response rate of 5% was calculated and added.

$$n = \frac{(1.96)^2 \times 0.211(1-0.211)}{(0.05)^2}$$

$n = 268.6$

Adjusting for a 5% non-response rate = $268.6 + 12.7909 = 268.6$

An estimate of 269 female students were to be recruited for the study.

Inclusion and exclusion criteria

Inclusion criteria

1. Female students enrolled in the La Dade-Kotopon Municipality's Senior High Schools
2. Female students aged 10 -19 years
3. Female students who provided parental consent
4. Those who agreed to be part of the study

Exclusion criteria

1. Students outside the La Dade-Kotopon Municipality were excluded.
2. Students who were severely ill
3. Students aged below 10 years and above 20 years
4. Those who refused to be part of the study

3.7 Data collection/ Sampling Technique

A review of pertinent literature was conducted before developing a semi-structured questionnaire. The study objective, which took into account the sociodemographic factors of the respondents as well as aspects of religion, culture, and the health system that affect how often female students use contraceptives, guided the creation of the questions in the La Dade-Kotopon Municipal Area.

A total of 269 students were enrolled for the study. Using the multistage sampling technique which involved selecting two out of the three SHSs in La Dade Kotopon Municipality that have female students. (Labadi Presbyterian Senior High School and Labone Senior High School). One school did not allow the study to be conducted. (Armed Forces Senior High/Technical School).

Each class was treated as a stratum namely, SHS 2, and SHS 3. SHS 1 students were on vacation during the study. Female students who met the inclusion criteria were selected from each stratum through simple random sampling.

The process involved writing "Yes" and "No" on pieces of paper, mixing them, and allowing students who satisfied the inclusion requirements to select. Students who selected "Yes" were enrolled in the study right away. A total of 129 students of Labadi Presbyterian Senior High School and 140 students of Labone Senior High School were enrolled in the study after selecting Yes.

3.8 Research Instruments/Survey Tools

A semi-structured questionnaire was used in gathering data for this research. Questionnaires were designed to elicit responses on the knowledge of contraceptives in general, EC in particular and decision-making factors of EC usage.

3.9 Pre-Test or Pilot Study

Pre-testing of the questionnaire was conducted in Presbyterian Senior High School, Osu-Accra, in the Korle Klottey Municipality which has the same characteristics as La Dade-Kotopon Municipality to guarantee the quality of the questionnaire and that the methodology and study design will yield the necessary data. The questions were revised to better fit the participants' comprehension and the research's design.

The pre-tested questionnaire was used to solicit information on socio-demographic characteristics, knowledge, and factors influencing emergency contraceptive use. The pilot study was done to check whether the questionnaire was clear and understandable for the students, to test the data collection process, and to ensure that the study could be conducted smoothly. It helped identify and correct any issues before carrying out the full research.

Three field assistants were engaged for the data collection exercise. They were trained and supervised on how to administer questionnaires. Amendments were made to the study tools following pre-testing before the actual data collection.

3.10 Data Processing and Analysis

Data analysis is the process of inspecting and transforming data to discover useful information, conclude, and support decision-making (Brown, 2014).

Each completed questionnaire was manually reviewed for accuracy and completeness to guarantee the quality of the data. The information was saved on a computer. The data were password-protected to guarantee confidentiality. Hard copies were kept under lock and key in a cabinet in case they were needed later. The data was first entered into Excel and imported to Stata. The findings of the study were presented through summary statistics, Tables, charts, and logistic regression analysis to determine the prevalence, knowledge, and factors that influence **emergency contraceptive (EC)**.

The overall knowledge level of EC was assessed with three (3) questions. The association between the demographic characteristics of the respondents and their level of awareness, knowledge and usage was assessed through the chi-square test employing the Fisher's Exact test. The multiple

binary logistic regression was employed to assess the determinant factors influencing the utilisation of EC.

All statistical analyses were conducted using Stata version 17 (StataCorp, College Station, Texas, USA) and a p-value of less than 0.05 was considered statistically significant.

3.11 Ethical Issues

Ethical clearance was sought from the Ghana Health Service Ethical Review Committee with reference number GHE-ERC-080/04/24. Permission was also sought from the Municipal Health Directorates, the La Dade-kotopon Municipal Education Office (LaDMEO) and the Municipal Assembly of the study area. In addition, permission was also sought from school authorities of the selected schools before the commencement of the study. Also, verbal consent was sought from the participants.

The privacy and confidentiality of every participant was ensured throughout the research period. Participants were informed that their participation in the study is entirely voluntary and that they will not receive any material or financial benefits, as well as an explanation of the study's purpose. They were also told that this was strictly an academic study and that the researcher had no conflicts of interest with the study.

It was not necessary for respondents to write their names on the questionnaire in order to maintain anonymity. Additionally, they were told that they could opt out of the study at any time without facing any consequences, even after giving their written consent. Respondents' information was handled with confidentiality and privacy.

CHAPTER FOUR

RESULTS

4.1 Introduction

This chapter presents the findings of the study through summary statistics, tables, charts, and logistic regression analysis to determine the prevalence, knowledge, and factors that influence emergency contraceptive (EC) use among female students in the La Dade-Kotopon Municipal Area. The chapter is divided into four sections. The first section describes the demographic characteristics of the respondents. Section two explored the level of knowledge of the respondents on emergency contraceptives (ECs), the third section assessed the prevalence of ECs use while the fourth section assessed the factors associated with its EC usage. STATA version was used in the analysis.

4.2 Demographic characteristics

The study considered 269 respondents (all females SHS students) in the final analysis (100% response rate). The demographic characteristics of the respondents are presented in Table 4.1. The ages of the respondents ranged between 14 and 24 years with the average age being 17.5 ± 1.4 years. Most 269 (91.5%) of the respondents were between 14 – 19 years (adolescents), while 8.5% were between the ages of 20 – 24 years (young adults). Most 269 (96.7%) of the respondents were single while 96.7% of the 269 respondents were Christians. Furthermore, 55% of the respondents were in SHS 2 while 45% were in SHS 3. Two schools were used for the study. School A was Presbyterian Senior High School and School B, Labone Senior High School.

Table 4.1: Demographic Characteristics of Respondents

Characteristics	School A	School B	Schools A+B
	<i>n (%)</i>	<i>n (%)</i>	<i>n (%)</i>
Age (<i>Mean ±SD</i>)	17.5 ±1.5	17.6 ±1.3	17.5 ±1.4
14 – 19 (Adolescents)	115 (89.2)	131 (93.6)	246 (91.5)
20 – 24 (Young adults)	14 (10.9)	9 (6.4)	23 (8.5)
Marital Status			
Single	129 (100.0)	137 (97.9)	266 (98.9)
Co-habiting	0 (0)	3 (2.1)	3 (1.1)
Religion			
Christians	123 (95.4)	137 (97.9)	260 (96.7)
Muslims	6 (4.7)	3 (2.1)	9 (3.3)
Educational Level			
SHS 2	59 (45.7)	89 (63.6)	148 (55.0)
SHS 3	70 (54.3)	51 (36.4)	121 (45.0)
Total	129 (100.0)	140 (100.0)	269 (100.0)

4.3 Knowledge of emergency contraceptives among respondents

This section of the study assessed the knowledge of the respondents on emergency contraceptives. The findings showed that the majority of the respondents (84.4%; 95% CI: 79.5, 88.3) had heard of emergency contraceptives (Figure 4.1).

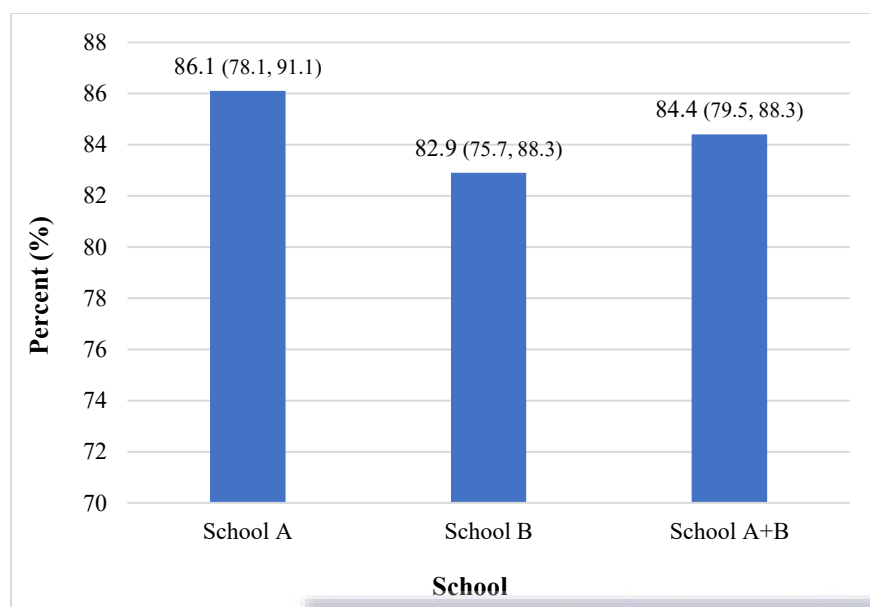


Figure 4.1: Proportion of respondent's knowledge level of EC

Table 4.2 presents the distribution of knowledge levels of ECs by the demographic characteristics of the respondents. It was observed that more young adults representing 91.3% had level of knowledge in emergency contraceptives than adolescents 83.7%. Also, the majority of both single 266(84.6%) and co-habiting students 3(66.7%) had good level of knowledge of ECs. Furthermore, majority of respondents at the SHS 2 level, representing 82.4% had good level of knowledge of emergency contraceptives. 86.8% of the respondents in SHS 3 were aware of emergency contraceptives. Respondents who had not heard of emergency contraceptives were excluded from further analysis.



Table 4.2: Fishers exact test Analysis of the Awareness level of ECs by demographic characteristics of the respondents

Characteristic	School A			School B			School A + B		
	Yes	No	p -value*	Yes	No	p -value*	Yes	No	p -value*
	<i>n (%)</i>	<i>n (%)</i>		<i>n (%)</i>	<i>n (%)</i>		<i>n (%)</i>	<i>n (%)</i>	
Age			0.216			0.478			0.268
Adolescents	97 (84.3)	18 (15.7)		109 (83.2)	22 (16.8)		206 (83.7)	40 (16.3)	
Young adults	14 (100.0)	0 (0)		7 (77.8)	2 (22.2)		21 (91.3)	2 (8.7)	
Marital Status			-			0.434			0.400
Single	111 (86.0)	18 (14.0)		114 (83.2)	23 (16.8)		225 (84.6)	41 (15.4)	
Co-habiting	0 (0)	0 (0)		2 (66.7)	1 (33.3)		2 (66.7)	1 (33.3)	
Religion			0.602			0.434			0.423
Christian	106 (86.2)	17 (13.8)		114 (83.2)	23 (16.8)		220 (84.6)	40 (15.4)	
Muslim	5 (83.3)	1 (16.7)		2 (66.7)	1 (33.3)		7 (77.8)	2 (22.2)	
Educational Level			0.444			0.285			0.210
SHS 2	50 (84.8)	9 (15.3)		72 (80.9)	17 (19.1)		122 (82.4)	26 (17.6)	
SHS 3	61 (87.0)	9 (14.0)		44 (86.3)	7 (13.7)		105 (86.8)	16 (13.2)	

*Fishers exact test was employed

Figure 4.2 presents the distribution of the source of information on ECs by the school of the respondents. Social media (38.3%), health staff (36.6%), TV (26.9%), and friends (24.3%) were the top four out of six sources of information on emergency contraceptives among the respondents. While social media (41.4%) was the leading source of information among respondents in school A, health staff (37.9%) came top for those in school B.

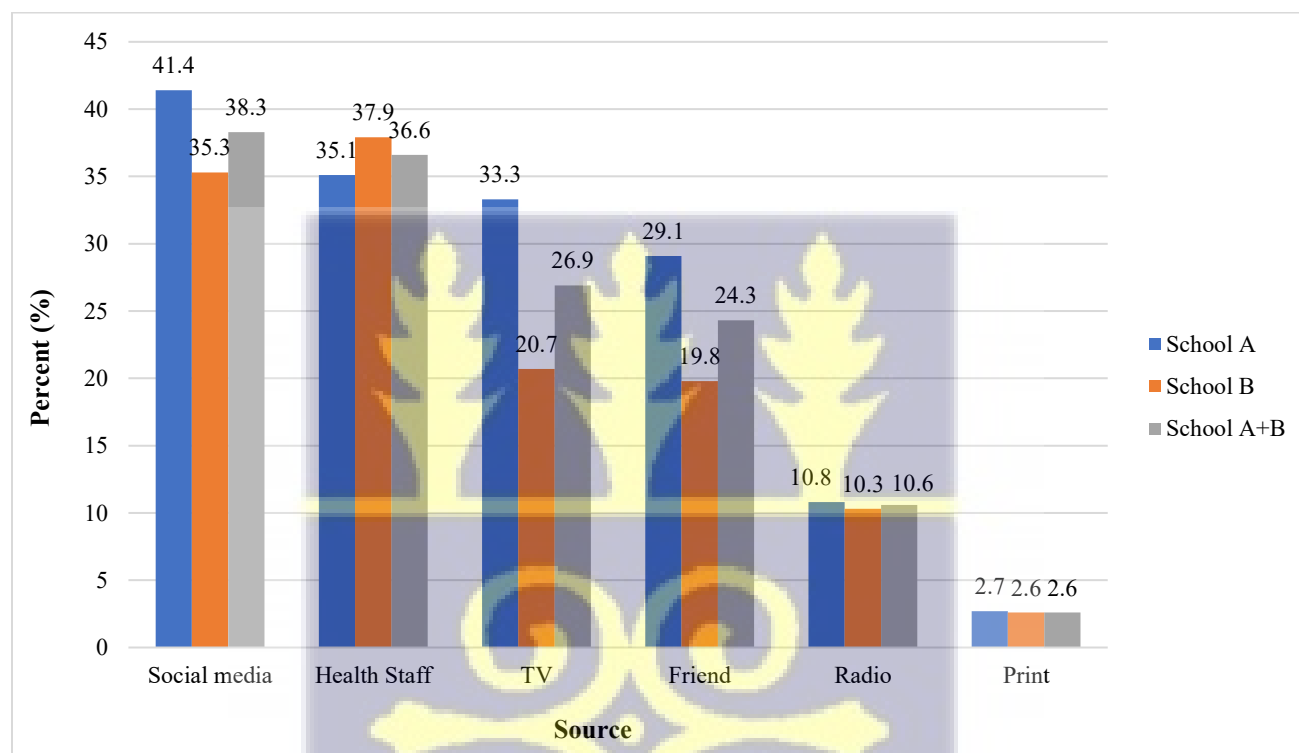
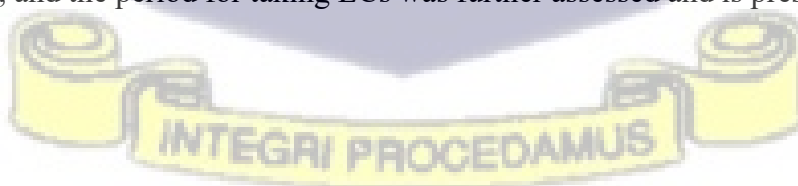


Figure 4.2: Distribution of source of information by school

The knowledge on effectiveness of EC among respondents, level of protection against STIs provided by ECs, and the period for taking ECs was further assessed and is presented in Table 4.3 and Figure 4.3.



Almost half of the respondents, 103 (45.4%), believed that ECs are 100% effective, while a slightly higher proportion, 105 (46.3%), correctly indicated that ECs are not fully effective. A smaller proportion, 19 (8.4%), reported having no idea about the effectiveness of ECs.

Regarding the timing of administration, 101 (44.5%) recognized that ECs are more effective when taken immediately after unprotected sexual intercourse, while 93 (41.0%) were not aware of this time-dependent effectiveness. About 33 (14.5%) of respondents indicated that they had no knowledge on whether timing affects EC efficacy.

In terms of protection against sexually transmitted infections (STIs), only 23 (10.1%) believed that ECs provide protection, whereas the majority, 154 (67.9%), correctly understood that ECs do not prevent STIs. Meanwhile, 50 (22.0%) reported uncertainty on the matter.

Table 4.3: Knowledge on the effectiveness of ECs among respondents

Items	Yes	No	No idea
	<i>n (%)</i>	<i>n (%)</i>	<i>n (%)</i>
EC is 100% effective	103 (45.4)	105 (46.3)	19 (8.4)
EC is more effective when taken immediately	101 (44.5)	93 (41.0)	33 (14.5)
EC provide protection from STIs	23 (10.1)	154 (67.9)	50 (22.0)

With regards to the recommended time to take EC, 38.8% of the 227 respondents indicated that the recommended time to take EC was within 24 hours after sex), while 37.4% had no idea (Figure 4.3).

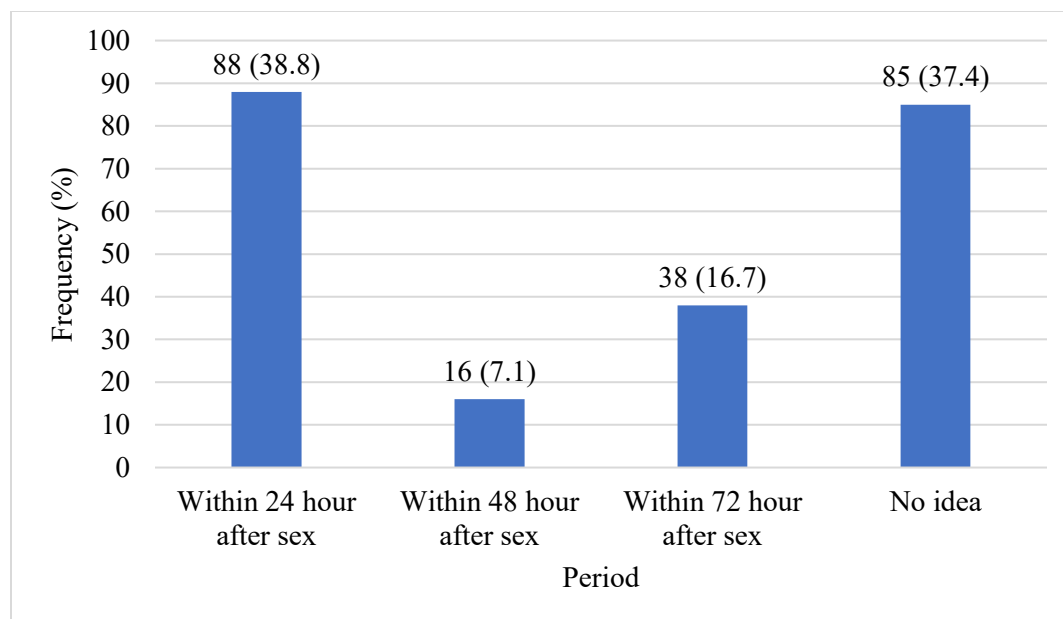


Figure 4.3: Knowledge of time to take EC after sex

The overall knowledge level of the respondents on ECs was assessed and is presented in Figure 4.4. It was observed that an appreciable proportion of the respondents (n=227; 45.4%) had moderate level of knowledge on ECs while 18.9% had good knowledge.

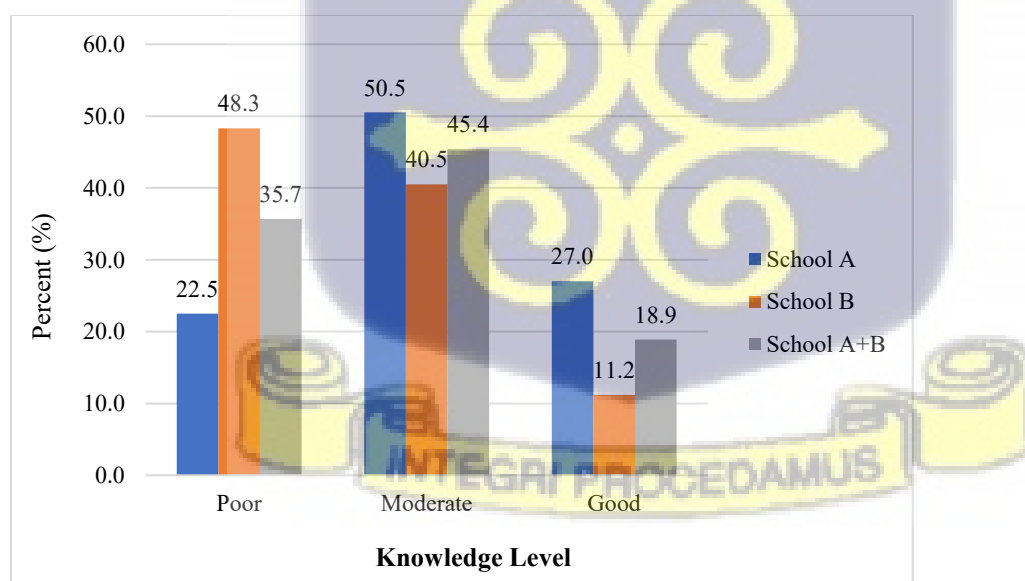


Figure 4.4: Overall knowledge level of ECs among respondents

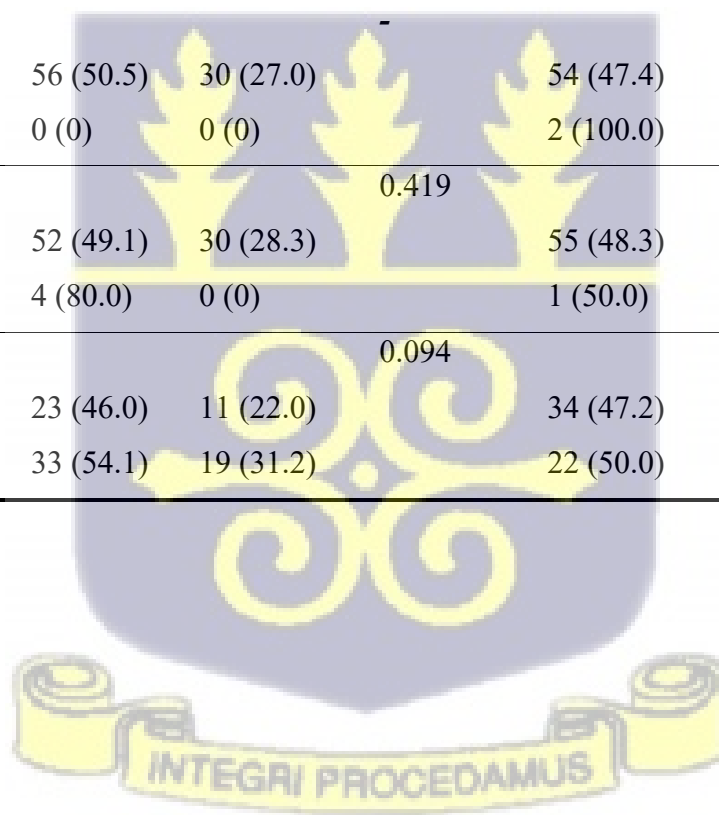
The distribution of the knowledge level of ECs among the respondents by their demographic characteristics is presented in Table 4.4. More young adults scored moderately (n=21; 52.4%) to good (n=21; 33.3%) on the knowledge level compared to the adolescents (moderate – 44.7%, good – 17.5%). Also, all the respondents co-habiting scored poorly while 35.1% of those single had poor knowledge. A greater proportion of respondents in SHS 3 had better knowledge of EC than those in SHS



Table 4.4 Fishers Exact Test Analysis of the knowledge level of EC by demographic characteristics of respondents

Characteristic	School A				School B			
	Poor	Moderate	Good	p -value*	Poor	Moderate	Good	p -value*
	n (%)	n (%)	n (%)		n (%)	n (%)	n (%)	
Age				0.028				0.636
Adolescents	25 (25.8)	49 (50.5)	23 (23.7)		53 (48.6)	43 (39.5)	13 (11.9)	
Young adults	0 (0)	7 (50.0)	7 (50.0)		3 (42.9)	4 (57.1)	0 (0)	
Marital Status				-				0.605
Single	25 (22.5)	56 (50.5)	30 (27.0)		54 (47.4)	47 (41.2)	13 (11.4)	
Co-habiting	0 (0)	0 (0)	0 (0)		2 (100.0)	0 (0)	0 (0)	
Religion				0.419				1.000
Christian	24 (22.6)	52 (49.1)	30 (28.3)		55 (48.3)	46 (40.4)	13 (11.4)	
Muslim	1 (20.0)	4 (80.0)	0 (0)		1 (50.0)	1 (50.0)	0 (0)	
Educational Level				0.094				0.962
SHS 2	16 (32.0)	23 (46.0)	11 (22.0)		34 (47.2)	30 (41.7)	8 (11.1)	
SHS 3	9 (14.8)	33 (54.1)	19 (31.2)		22 (50.0)	17 (38.6)	5 (11.4)	

*Fishers exact test was employed



4.4 Prevalence of emergency contraceptives use among respondents

This section of the study assessed the prevalence of the usage of ECs among the respondents. The distribution of the utilization of EC by the demographic characteristics of the respondents is presented in Table 4.5. It was observed that 31.5% (222, 95% CI: 25.7, 38.0) of the respondents had ever used EC. More young adults 21(66.7%) than adolescents 201(27.9%) used EC. A significant association was observed between age and utilisation of EC ($p\text{-value}<0.001$). Also, more SHS 3 respondents 102(41.2%) than SHS 2 respondents 120(23.3%) used EC where a significant association was observed between level of education and utilisation of ECs ($p\text{-value}=0.004$).

Table 4.5: Prevalence of ECs use among respondents

Item	Proportion	95% C.I.
School A	28.7	20.9, 38.0
School B	34.2	26.1, 43.4
School A+B	31.5	25.7, 38.0

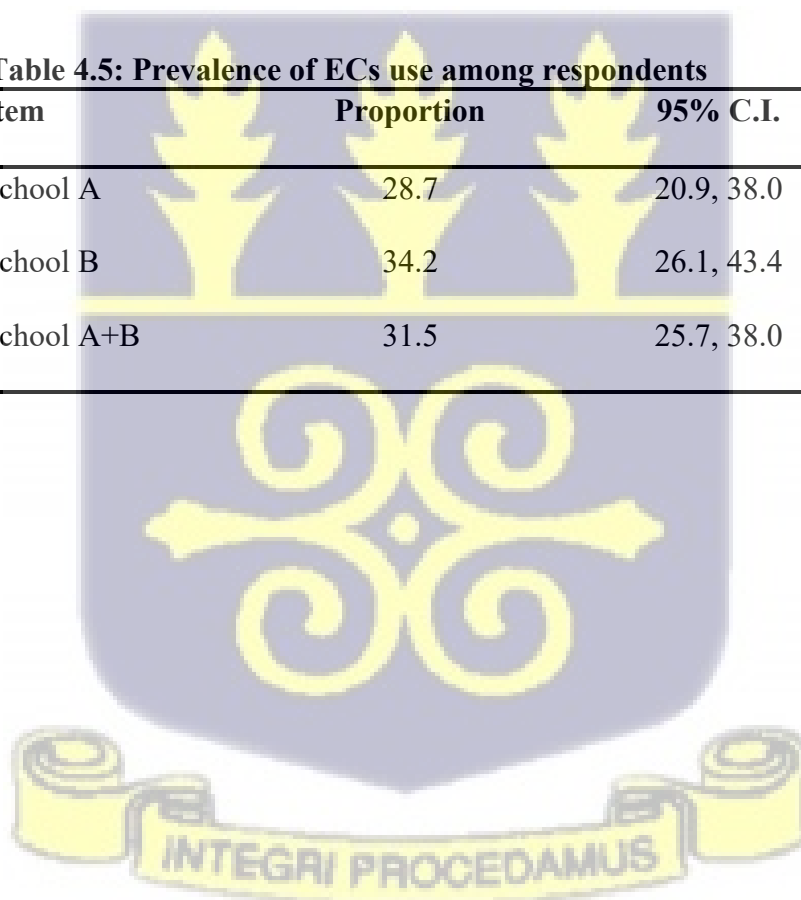
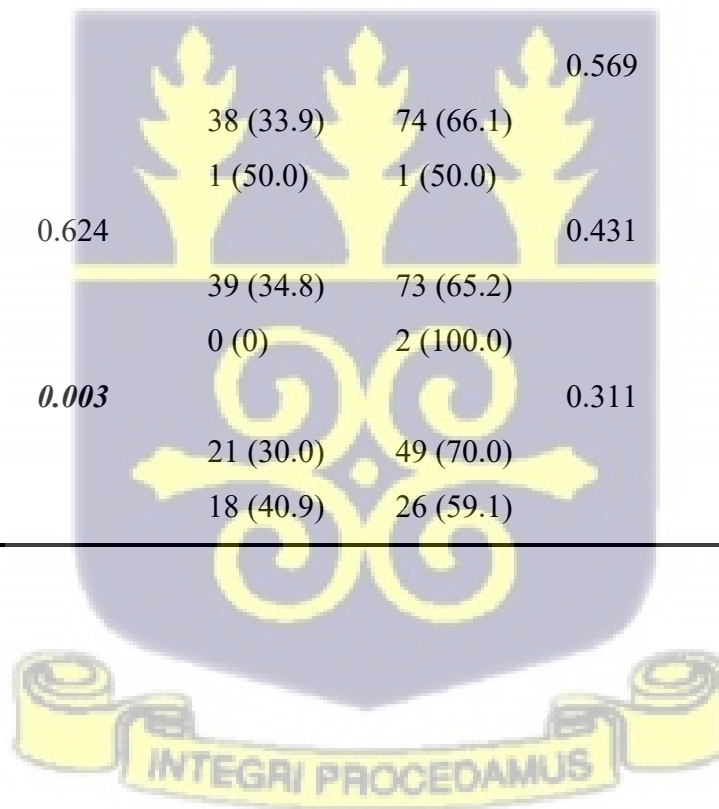


Table 4.6: Fishers Exact Test Analysis of EC use by demographic characteristics of respondents

Characteristic	School A			School B			School A+B		
	Yes	No	p -value*	Yes	No	p -value*	Yes	No	p -value*
	<i>n (%)</i>	<i>n (%)</i>		<i>n (%)</i>	<i>n (%)</i>		<i>n (%)</i>	<i>n (%)</i>	
Age			<0.001			0.228			<0.001
Adolescents (14 -19)	21 (22.3)	73 (77.7)		35 (32.7)	72 (67.3)		56 (27.9)	145 (72.1)	
Young adults (20- 24)	10 (71.4)	4 (28.6)		4 (57.1)	3 (42.9)		14 (66.7)	7 (33.3)	
Marital Status						0.569			0.532
Single	31 (28.7)	77 (71.3)		38 (33.9)	74 (66.1)		69 (31.4)	151 (68.6)	
Co-habiting	0 (0)	0 (0)		1 (50.0)	1 (50.0)		1 (50.0)	1 (50.0)	
Religion			0.624			0.431			613
Christian	29 (28.2)	74 (71.8)		39 (34.8)	73 (65.2)		68 (31.6)	147 (68.4)	
Muslim	2 (40.0)	3 (60.0)		0 (0)	2 (100.0)		2 (28.6)	5 (71.4)	
Educational Level			0.003			0.311			0.006
SHS 2	7 (14.0)	43 (86.0)		21 (30.0)	49 (70.0)		28 (23.3)	92 (76.7)	
SHS 3	24 (41.4)	34 (58.6)		18 (40.9)	26 (59.1)		42 (41.2)	60 (58.8)	

**Fishers exact test was employed*



The study explored whether the utilisation of EC was a personal decision or influence by someone else and is presented in Figure 4.5. Boyfriends, school, and parents were the three main sources that suggested the usage of EC by respondents. For the majority of both respondents in school A (51.5%) and school B (78.1%), their boyfriends suggested they use EC.

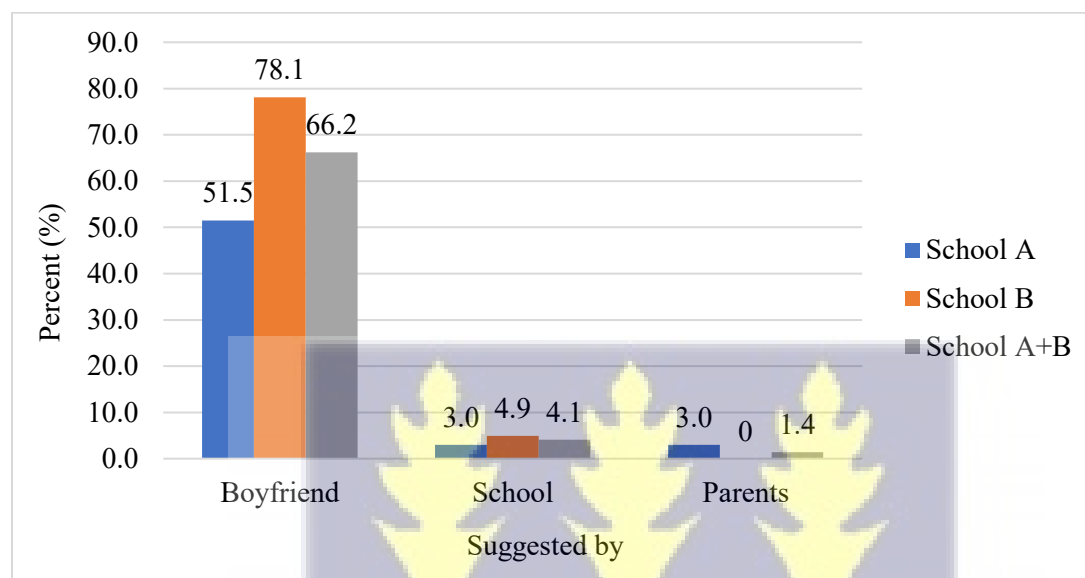


Figure 4.5: Individual who suggested usage of EC by respondents

Access to ECs by respondents

The findings of the study showed that a majority of both adolescents representing 60% and young adults representing 69.2% had difficulty in accessing ECs. Also, a majority of both respondents in SHS 2 25(72%) and SHS 3 41(56.1%) could not access emergency contraceptives easily. (Table 4.6).



Table 4.7: Difficulty in accessing EC by demographic characteristics of respondents

Table 17: Difficulty in accessing EC by demographic characteristics of respondents										
Characteristic	School A		(p value)	School B		p – value	School A+B		(p value)	
	Yes	No		Yes	No		Yes	No		
	<i>n</i>	<i>n</i>		<i>n</i>	<i>n</i>		<i>n</i>	<i>n</i>		
	(%)	(%)		(%)	(%)		(%)	(%)		
Age										
			(0.779)			(0.179)			(0.555)	
Adolescents	11	11		21	10		32	21		
	(50.0)	(50.0)		(67.7)	(32.3)		(60.4)	(39.6)		
Young adults	5	4		4	0 (0)		9	4		
	(55.6)	(44.4)		(100.0)			(69.2)	(30.8)		
Educational Level										
			(0.318)			0.068)			(0.196)	
SHS 2	2	4		16	3		18	7		
	(33.3)	(66.7)		(84.2)	(15.8)		(72.0)	(28.0)		
SHS 3	14	11		9 (56.3)	7		23	18		
	(56.0)	(44.0)			(43.8)		(56.1)	(43.9)		

Reasons for ever use of EC by respondents

Figure 4.6 presents respondents reasons for ever using EC. It was observed that the majority 59 (64.4%) of the respondents did not like to use condom so they had to resort to EC. The other reasons for the utilisation of EC include failure of withdrawal method 65 (23.1%), miscalculation of safe period of menstrual cycle 66 (22.7%), and broken condom 62 (14.5%).



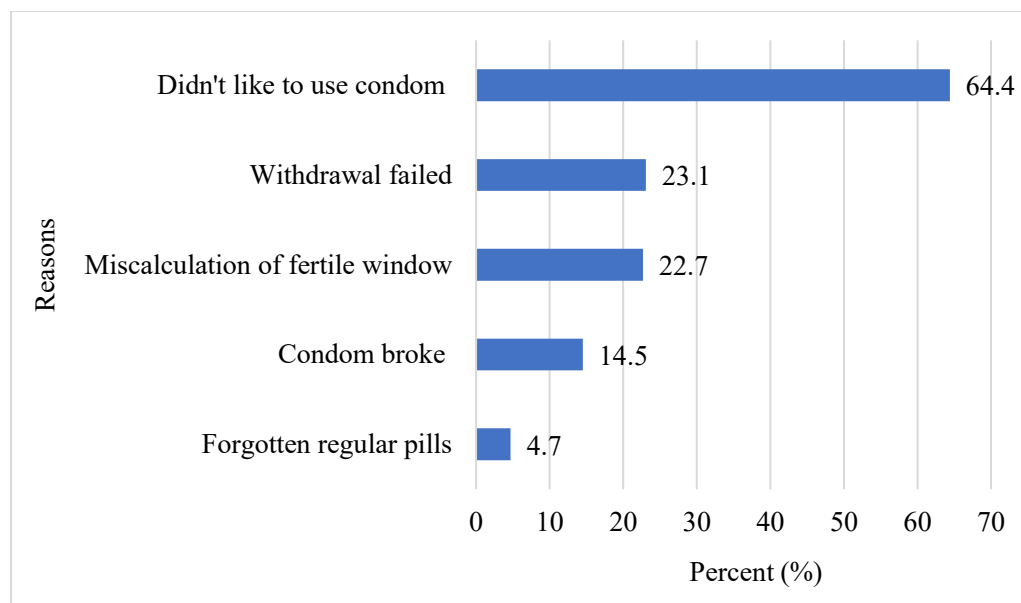


Figure 4.6: Reasons for ever use of EC among respondents

Current use of EC among respondents

The study showed that 47.5% (61; 95% CI: 35.2, 60.2) of respondents who had ever used EC were still using it at the time of study. (Figure 4.7).

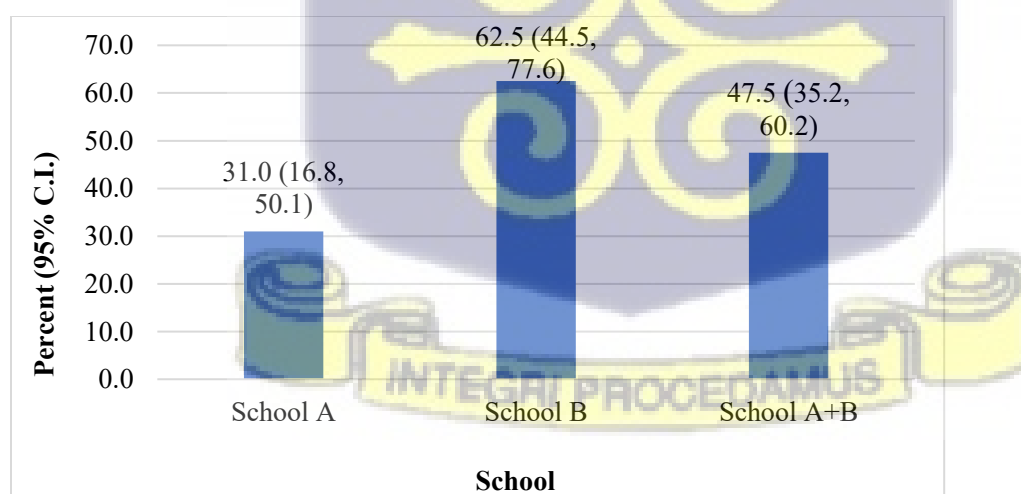


Figure 4.7: Proportion of respondents currently using EC

Respondents' sources of the EC services included pharmacy shop 45 (77.8%), hospital 42 (16.7%), and clinic 38 (2.6%) (Figure 4.8).

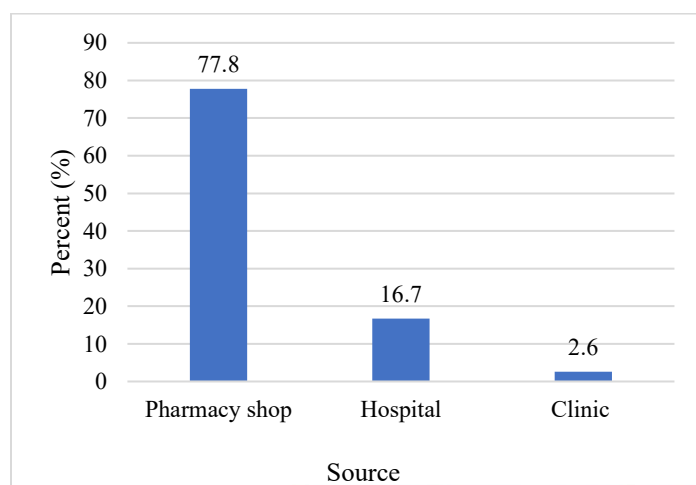


Figure 4.8: Respondents' source of EC services

The reasons for using the method of EC by respondents included affordability 42 (33.3%), ease of use 42 (31%), convenience 44 (30%), and minimal side effect 44 (20.5%) (Figure 4.9).

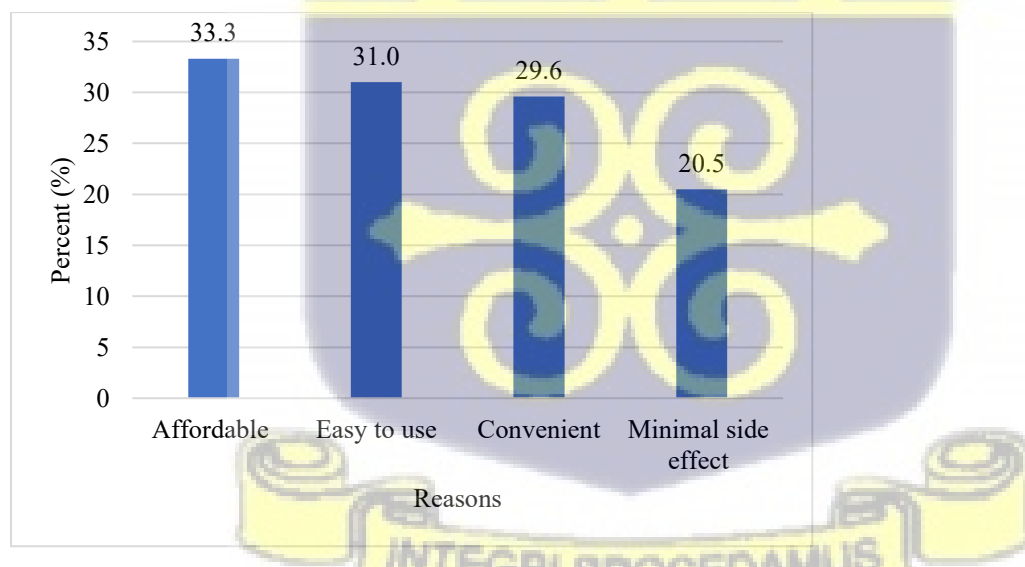


Figure 4.9: Reasons for utilising EC method among respondents

The majority 39(43.6%) of the respondents had used EC service for a year while 30.8% used the services for less than 6 months. Also, 20% of the respondents had used the services for two years while 5.1% had used it for five years (Figure 4.10).

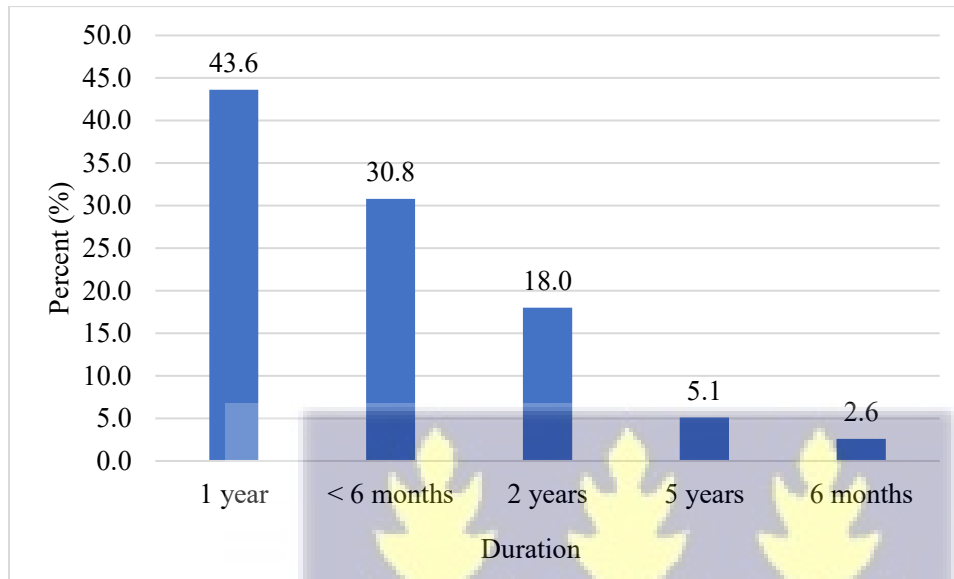


Figure 4.10: Duration of utilising EC services

Furthermore, 44% of the respondents would not recommend a friend or a relative to use EC. The reasons for not recommending included expensive 23(52.2%), side effect (39.1%) and the fact that EC could fail (8.7%).



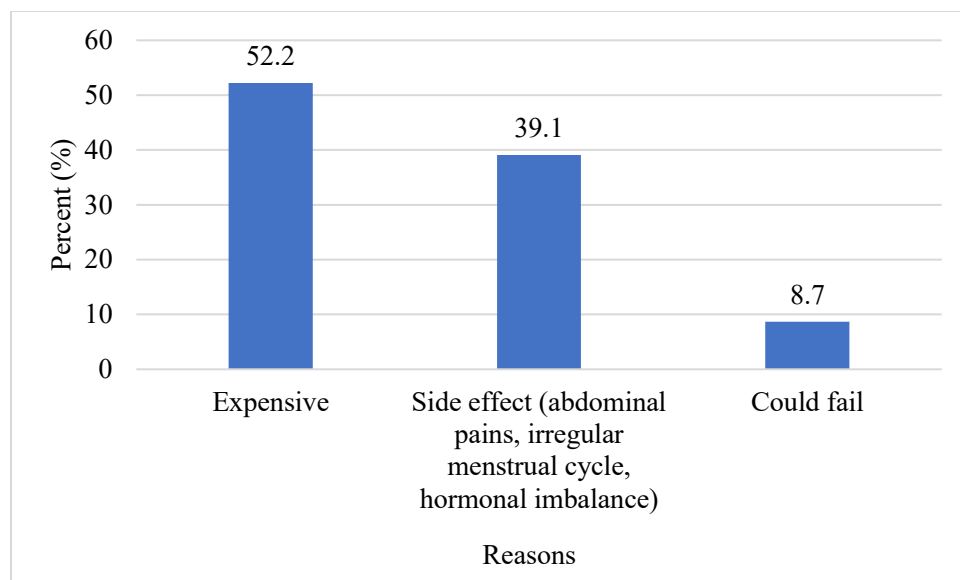


Figure 4.11: Reasons for not recommending EC to others

4.5 Factors influencing the use of emergency contraceptive among respondents

This section of the study assessed factors that may influence utilisation of EC among the respondents and the findings are presented in Tables 4.8 and 4.9. Table 4.8 presents the views of the respondents on identified factors from literature. The findings showed that religious teachings and beliefs could influence the uptake of EC (72.9%). A majority of the respondents supported the notion that peer pressure (84.9%), parental attitudes and guidance (84.4%), and level of education and awareness of EC (83.1%) could influence its uptake. The ease of accessibility (70.7%), cost (63.1%), and attitude of healthcare providers (81.3%) were also cited as contributory factors to the uptake of EC. An appreciable proportion of the respondents (36.9%) were not in support of the notion that La Dade Kotopon has cultural beliefs that could hinder the uptake of EC.

Table 4.8: Factors influencing the use of emergency contraceptive among respondents

Item	Disagree	Uncertain	Agree
	<i>n (%)</i>	<i>n (%)</i>	<i>n (%)</i>
Cultural beliefs	83 (36.9)	10 (4.4)	132 (58.7)
Religious teachings and beliefs	43 (19.1)	18 (8.0)	164 (72.9)
Peer pressure and friends' opinions	16 (7.1)	18 (8.0)	191 (84.9)
Parental attitudes and guidance	22 (9.8)	13 (5.8)	190 (84.4)
The level of education and awareness	28 (12.4)	10 (4.4)	187 (83.2)
The ease of accessing health services and obtaining EC	56 (24.9)	10 (4.4)	159 (70.7)
The cost of emergency contraceptives	80 (35.6)	15 (6.7)	130 (57.7)
Concerns about confidentiality and privacy	50 (22.2)	33 (14.7)	142 (63.1)
The attitudes and approachability of healthcare providers	6 (2.7)	36 (16.0)	183 (81.3)
Exposure to information through media and other sources	7 (3.1)	25 (11.2)	192 (85.7)

The determinants of EC use among the students were further assessed through logistic regression analysis and is presented in Table 4.9. OR is the unadjusted model and aOR is the adjusted model each with the associated 95% confidence interval (C.I).

The findings of the study showed that the odds of utilization of ECs is 3.2 times higher among young adults compared to adolescents [aOR: 3.2 (1.1, 9.3); p-value=0.036]. Also, the odds of utilization of ECs is 2.3 times among respondents in SHS 3 compared to those in SHS 2 [OR: 2.3 (1.3, 4.1); p-value=0.005].

Table 4.9: Logistic regression model of predictors of emergency contraceptive use

Exposure	OR (95% C.I)	p – value	aOR (95% C.I)	p – value
Age				
Adolescent		<i>reference</i>		
Young adults	5.2 (2.0, 13.5)	0.001	3.2 (1.1, 9.3)	0.034
Religion				
Christian				
Muslim	0.9 (0.2, 4.6)	0.864	1.5 (0.2, 9.0)	0.665
Educational Level				
SHS 2				
SHS 3	2.3 (1.3, 4.1)	0.005	1.8 (0.9, 3.5)	0.091
Knowledge level				
Poor				
Moderate	2.6 (1.3, 5.2)	0.006	2.8 (1.3, 6.1)	0.008
Good	2.8 (1.2, 6.4)	0.015	3.2 (1.2, 8.4)	0.019
School				
School A				
School B	1.3 (0.7, 2.2)	0.378	2.6 (1.3, 5.4)	0.009
Cultural beliefs				
No				
Yes	0.9 (0.5, 1.7)	0.782	0.9 (0.5, 1.8)	0.783
Peer pressure				
No				
Yes	1.9 (0.8, 4.7)	0.141	2.0 (0.7, 5.5)	0.192
Parent attitude				
No				
Yes	1.3 (0.6, 3.0)	0.494	1.1 (0.4, 3.0)	0.792
Access				
No				
Yes	0.9 (0.5, 1.8)	0.864	1.2 (0.6, 2.6)	0.565
Cost				

No				
Yes	0.9 (0.5, 1.7)	0.843	0.9 (0.4, 1.9)	0.810
Confidentiality				
No				
Yes	1.5 (0.8, 2.8)	0.196	1.7 (0.8, 3.6)	0.173
Attitude of healthcare provider				
No				
Yes	1.0 (0.5, 2.2)	0.916	0.8 (0.3, 1.9)	0.544



CHAPTER FIVE

DISCUSSION OF RESULTS

5.1 Introduction

In this chapter, the study results are interpreted and compared with similar studies in literature and the implications with respect to the conceptual framework are discussed. Findings on the prevalence of emergency contraceptive use among female students, the level of knowledge of emergency contraceptives, and factors that influencing the use of emergency contraceptives are discussed in reference to relevant literature.

5.2 Level of knowledge of emergency contraceptives among Respondents

The current study conceptualized that the knowledge and awareness of emergency contraceptives will positively influence its utilisation. The findings showed that the majority of the respondents (84.4%; 95% CI: 79.5, 88.3) were aware of emergency contraceptives. Social media (38.3%), health staff (36.6%), TV (26.9%), and friends (24.3%) were the top four out of six sources of information on emergency contraceptives. This corresponds with a cross-sectional study conducted in selected schools in the Osun state of Nigeria 47 respondents (15.7 %) reported friends as their source, 46 respondents (15.3 %) heard from health personnel. It could also be said that the media and friends have the potential to shape the behaviours of adolescents, concerning dating, sex and emergency contraceptive use. Thus, the media could be used as a powerful tool necessary for the dissemination of information on modern contraceptives as it will reach a larger population. The prominence of social media (38.3%) in this study may reflect changing information ecosystems with increased digital access among students. However, the current finding is in contrast with findings in the Limpopo province of South Africa among secondary school girls, which revealed parents to be the major source of information for respondents. One could attribute

this disparity with this current study to poor communication between parents and children and also due to the taboos surrounding the discussion of sex and contraceptives in some communities in Ghana (Manu et al, 2015). This study found that although many parents had discussed at least one SRH topic with their children, very few discussed contraceptives use (only about 9.3% reported discussing that topic) and therefore children are compelled to learn about sexuality and contraception on their own through other means.

The finding of high level of awareness of emergency contraceptives among SHS students is in support of the findings of several studies (Debuo Der & Tarkang, 2023; Wanamo et al., 2021; Mesfin, 2020; Konlan et al., 2020; Tesfa, 2015). Konlan et al. (2020) observed 98.8% level of awareness of ECs among female high students in Ho, in the Volta region of Ghana while in Kpando, 97.4% of the female students had heard of at least one type of emergency contraception (Debuo Der & Tarkang, 2023). The adequate knowledge in the current study could be attributed to the widespread campaigns on emergency contraceptives that have influenced most people significantly especially female students as they wish to complete their education without an unplanned pregnancy. This is an indication that an appreciable proportion of students lack better understanding of ECs. This findings revealed that a substantial proportion of the participants possessed only a moderate level of knowledge (45.4%), with less than one-fifth (18.9%) demonstrating good knowledge on the subject. This suggests that although awareness of ECs exists, a significant number of respondents may not have sufficient depth of understanding to ensure effective and safe use. Similar outcomes were reported by Odeyemi et al. (2019) and Aziken, Okonta, and Ande (2003), emphasizing that while exposure to EC information is improving, comprehension remains limited among young populations in many low- and middle-income settings. The findings of this study do not corroborate the findings of Mesfin (2020), who

reported that 54.8% of senior high school students in Wolkite town, southern Ethiopia, had good knowledge of emergency contraceptives. In contrast, the present study found that only 18.9% of respondents demonstrated good knowledge, with the majority exhibiting moderate knowledge. This discrepancy may be attributed to differences in study populations, socio-cultural contexts, and access to sexual and reproductive health information. In Kpando, Volta region of Ghana, Debuo Der and Tarkang (2023) concluded that 78.5% of the respondents had sufficient knowledge of ECs. The knowledge of ECs among senior high students may vary as only 8% of respondents could rightly indicate the correct recommended time for ECs in the study by Wanamo et al. (2021). In the current study, only 16.7% of the respondents correctly indicated the recommended time. Students are already aware of ECs and are utilising them. Hence, there is the need to educate them on the right time to use EC to minimize any harmful health implications thereof.

Emergency contraceptives contribute essentially to better reproductive health. Clients must receive instruction on how to use their chosen method of contraception correctly and consistently to reap these positive benefits.

5.3 Prevalence of emergency contraceptive use among respondents

Emergency contraceptives (ECs) are drugs intended to prevent pregnancy after unprotected sexual intercourse or contraceptive failure. The current study showed that 31.5% (95% CI: 25.7, 38.0) of the respondents had ever used EC while 47.5% (95% CI: 35.2, 60.2) these proportion were still utilising it. The finding of high prevalence of ECs utilisation among SHS students is in corroboration with the findings of Abdul-Manan (2023) and Abdulai et al. (2020). Abdul-Manan (2023) reported prevalence of 30% among SHS students in Yendi Municipality while Abdulai et al. (2020) reported prevalence of 36.8% among SHS student in Tamale Metropolis. This is an indication that the prevalence of ECs is high among SHS students. While reducing unwanted

pregnancies and its related abortions among SHS students is objective for its usage, these girls could not be protected from sexually transmitted infections which should be of major concern to Ghana Education Service and other stakeholders. Al Ajayi (2019) posited that due to their infrequent condom use, young adults account for over 50% of new HIV transmissions and are also more vulnerable to HIV/STIs.

The age of respondents was statistically significant with utilisation as those between the age of 20 and 24 were more likely to use EC than adolescents between 14 and 19 ($p\text{-value} < 0.001$). Also, more SHS 3 respondents (41.2%) than SHS 2 respondents (23.3%) used EC where a significant association was observed between level of education and utilisation of ECs ($p\text{-value} = 0.004$). This finding agrees with a study conducted in Ghana using the demographic and health survey data which found that older female adolescents were 3 times more likely to use modern contraceptives. (Gyimah, Takyi, & Addai, 2006). Perhaps, this is because older respondents are mature and enlightened than the younger ones in terms of the available emergency contraceptives and the importance of emergency contraceptive use. Also, older respondents are more likely to be sexually active and be in relationships than younger ones. This will help reduce the incidence of unplanned pregnancies and unsafe abortions. There is therefore the need to intensify advocacy for safe sex among students to reduce the high prevalence of emergency contraceptive utilisation. Utilising family planning contributes to better reproductive health, which enhances the general health and well-being of women (Campbell et al., 2006).

5.4 Factors influencing the use of emergency contraceptives among female students

The current study conceptualized that the knowledge level of ECs positively influences its utilisation where it was hypothesized that there is a significant association between knowledge levels about ECs and its utilisation among female SHS students. Other determinant factors of

utilising EC were age and level of education. Young adults were 3.2 times more likely to utilise EC while students in SHS 3 were 2.3 times more likely. The findings of the study are in support of the findings of Yeboah et al. (2022) who posited that the knowledge level, knowledge level of female students about emergency contraceptives, age at first sex, history of pregnancy, and past use of regular contraceptives were statistically significant determinants of emergency contraceptive use and marital status.

Most of the respondents (72.9 %) in the current study agreed that religious teachings and beliefs involve their decision to take emergency contraceptives. This corresponds with a study conducted by Tilahun (2010) on emergency contraceptive use where religious beliefs did not permit some respondents to use emergency contraceptives. This finding could be due to the repressive nature of some religions regarding sex and contraceptive education especially among students, the majority of whom are not married. This, however, is a threat as young people are always curious about their developing bodies and want to explore their sexuality.

Some respondents from the current study also agreed that emergency contraceptives are expensive (57.8%) and this disagrees with a similar cross-sectional study conducted among SHS students in some selected schools in the Central region of Ghana, which revealed that 13% of students believed that modern contraceptives were expensive. The current finding could be a result of poorer economic conditions in the current study location.

The implication of these findings to GES and GHS service is to educate the students to have a better understanding of ECs and the health implications thereof in the quest to achieving Sustainable Development Goal (SDG) target 3.7 which seeks to ensure universal access to sexual

and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies by 2030.

5.5 Limitations of the study

The study did not collect information on whether the participants were sexually active or not, nor did it determine whether some of them were already using regular contraceptive methods (such as oral contraceptive pills, condoms, or injectables). This omission limits the interpretation of the findings. Emergency contraceptive use is directly influenced by sexual activity; therefore, including individuals who are not sexually active may lead to an overestimation of awareness but an underestimation of actual need or use.

Similarly, not assessing prior or ongoing use of other contraceptive methods makes it difficult to understand whether participants were using emergency contraception as a primary method of preventing pregnancy or merely as a backup method following contraceptive failure. This distinction is important because reliance on EC as a routine method may indicate gaps in access to, or confidence in, regular family planning services, while occasional use may reflect responsible sexual decision-making.

As a result, the absence of data on sexual activity and regular contraceptive use limits how confidently the findings can be generalized to all adolescent girls in the study area. The study may not accurately reflect the contraceptive behaviors of those who are sexually active, and therefore may not provide a full picture of the reproductive health needs of this population.

CHAPTER SIX

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

This chapter presents a summary of major findings of the study as well as the conclusions, recommendations and suggestions for future research. The recommendations are made based on the key findings and major conclusions arising from the study.

6.2 Summary of the study

The study sought to assess the knowledge, prevalence and factors that influence emergency contraceptive use among female students in the La Dade-Kotopon Municipal Area. The study was based on primary data collection among SHS students from two selected schools in the municipality: School A and School B. The study considered 269 respondents using a structured questionnaire: school A – 48%, school B – 52%. The ages of the respondents ranged between 14 and 24 with the average age being 17.5 ± 1.4 years. Furthermore, 55% of the respondents were in SHS 2 while 45% were in SHS 3.

The findings of the study showed that a majority of the respondents (84.4%; 95% CI: 79.5, 88.3) had heard of emergency contraceptives. More young adults (91.3%) than adolescents (83.7%) had good knowledge of emergency contraceptives. Social media (38.3%), health staff (36.6%), TV (26.9%), and friends (24.3%) were the most frequent sources of information on emergency contraceptives.

The study also showed that 31.5% (95% CI: 25.7, 38.0) of the respondents had ever used EC while 47.5% (95% CI: 35.2, 60.2) were still utilizing it. A significant association was observed between age, level of education and EC use ($p\text{-value} < 0.05$).

The predictors of EC use were age, level of education, and level of knowledge of EC. Young adults were 3.2 times more likely to utilise EC compared to adolescents [aOR: 3.2 (1.1, 9.3); p-value=0.036], students in SHS 3 were 2.3 times more likely than SHS 2 [OR: 2.3 (1.3, 4.1); p-value=0.005], while those with moderate and good knowledge level of EC were 2.68 [aOR: 2.8 (1.3, 6.1); p-value=0.008] and 3.2 times [aOR: 3.2 (1.2, 8.4); p-value=0.019] respectively more likely to utilise EC.

6.3 Conclusions

A high level of awareness of emergency contraceptives was observed among female students in the La Dade-Kotopon Municipal Area coupled with high level of prevalence of use. The variables of EC were age, level of education, and level of knowledge of EC. Resolving sexual and reproductive health issues and attaining universal access are essential to delivering on the 2030 Agenda for Sustainable Development's pledge that "no one will be left behind."

6.4 Recommendations

6.4.1 Recommendations for Stakeholders (MoE, GES, MOH, GHS and Health Facilities)

1. Intensify the education on the emergency contraceptives among senior high students: The high prevalence of ECs utilisation is an indication that majority of SHS students who are sexually active engage in unprotected sex endangering their lives with a high risk of contracting STIs. Ghana Education Service in collaboration with Ghana Health Service should intensify the education of these young ones on the dangers of unintended pregnancy and abortion. Moderate knowledge of EC can be also be achieved by incorporating sex education in school curriculum.

2. To reduce the economic barriers identified in the study, the government and health organizations should consider subsidizing the cost of emergency contraceptives for adolescents. Additionally, increasing awareness about locations where contraceptives can be obtained at low or no cost would help improve accessibility and usage rates among adolescents.
3. Given the influence of cultural and religious beliefs on the use of emergency contraceptives, it is recommended that community outreach programs be conducted to engage religious and cultural leaders. These programs should focus on creating awareness and dispelling myths about ECs, fostering a more supportive environment for adolescent contraceptive use.

6.4.2 Future Research

- The current study focused on two public schools in one municipality in the Greater Accra region. Further studies could expand this scope to include other municipalities/districts as well as private Senior high school to establish the prevalence in the region. The current study by employing the quantitative approach, established that age, level of education, and knowledge level of EC were predictors of EC utilisation. Future research should explore the long-term impact of socio-cultural and religious beliefs on not only emergency contraceptive use but also other forms of contraceptives among adolescents. A deeper understanding of how cultural norms evolve over time and influence contraceptive choices could guide more targeted interventions.

- Further research is needed to investigate the economic factors that restrict access to emergency contraceptives. This could include studies on the cost-effectiveness of subsidized contraceptive programs and their impact on adolescent contraceptive use, particularly among low-income communities.



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APPENDIX I

STUDY QUESTIONNAIRE

EMERGENCY CONTRACEPTIVE USE AMONG FEMALE SENIOR HIGH SCHOOL STUDENTS IN THE LA DADE- KOTOPON MUNICIPAL AREA-ACCRA.

SECTION “A”: SOCIO-DEMOGRAPHIC INFORMATION OF RESPONDENT

1. Age (years)?

Ans:.....

2. Gender?

Female ☐

Others ☐

3. Marital Status?

Single ☐

Co-habiting ☐

Married ☐

Divorced ☐

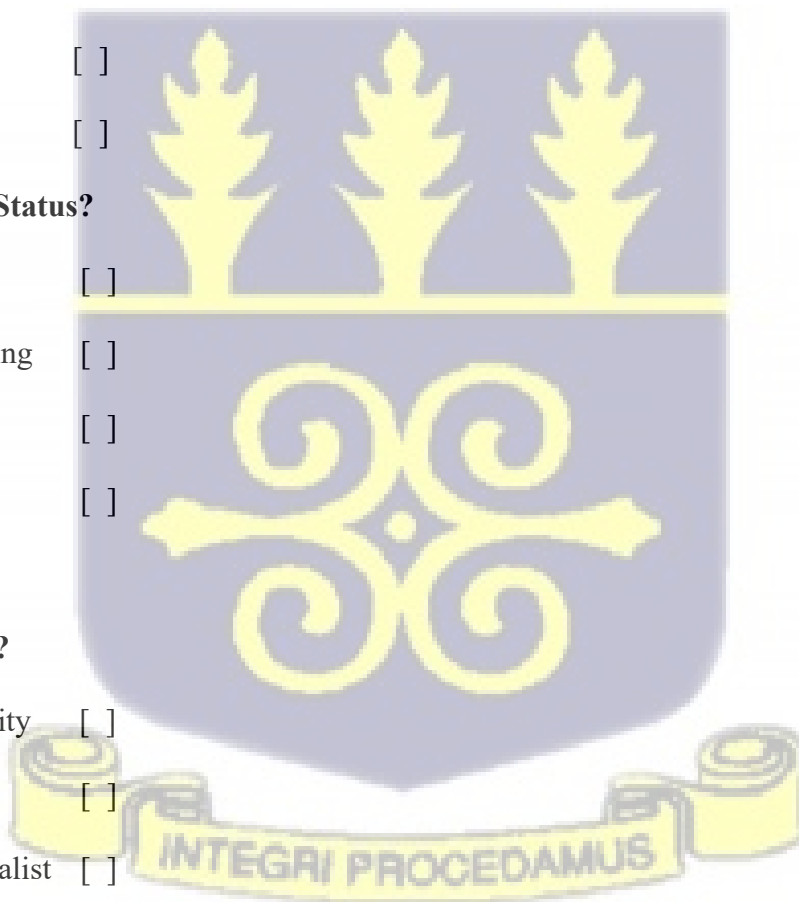
4. Religion?

Christianity ☐

Islamic ☐

Traditionalist ☐

Other ☐



5. Educational Level?

No Education ☐

Primary Education ☐

SHS ☐

Tertiary ☐

Vocational Training ☐

PART B: RESPONDENT'S AWARENESS OF EMERGENCY CONTRACEPTIVES

6. Have you ever heard of emergency contraceptives?

Yes ☐

No ☐

7. Where do you obtain information on emergency contraceptives?

Radio ☐

Print ☐

Media ☐

Television ☐

Health Staff ☐

Friend ☐

Others (specify).....

8. Do Students perceive EC to be 100% effective?

Yes ☐

No ☐

No idea ☐

9. Is EC more effective when taken immediately after unprotected sexual intercourse?

Yes ☐

No ☐

No idea ☐

10. Does EC provide protection from STIs?

Yes ☐

No ☐

No idea ☐

11. What is the Recommended time to take EC

Within 24 hour after sex ☐

Within 48 hour after sex ☐

Within 72 hour after sex ☐

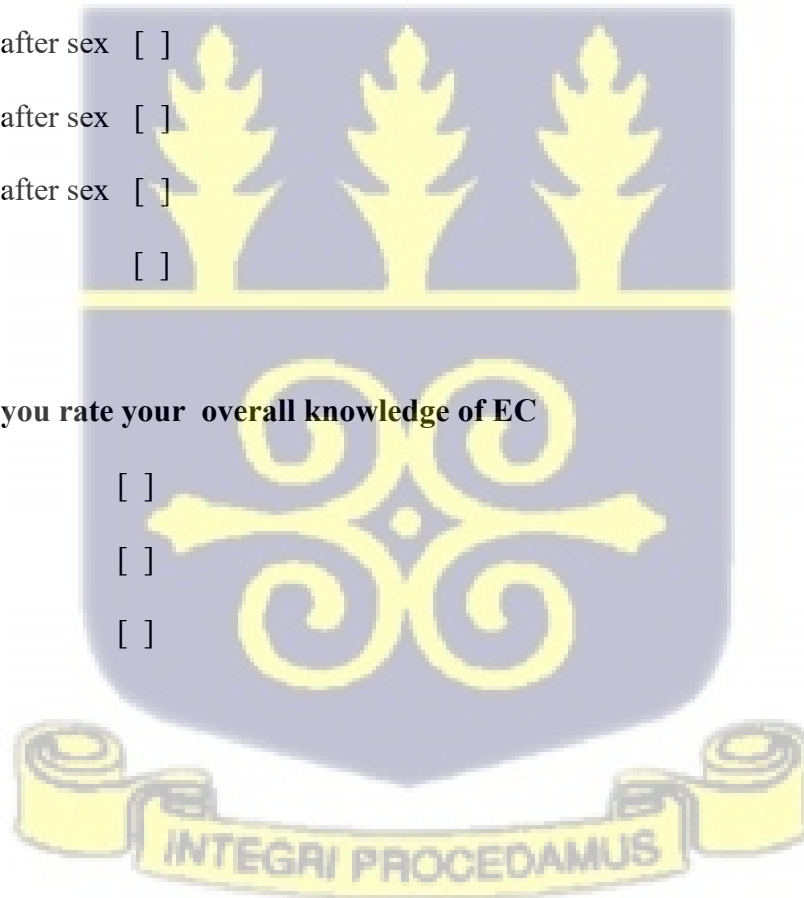
No idea ☐

12. How would you rate your overall knowledge of EC

Poor ☐

Moderate ☐

Good ☐



PART C: UTILIZATION OF EMERGENCY CONTRACEPTIVES

13. Have you ever used any emergency contraceptives before?

Yes []

No []

If yes to #13 move to #14, if No to #13, end.

14. Who Suggested EC use to you?

Boyfriend []

Health providers []

Parents []

School []

Others.....

15. Did you experience any difficulty obtaining?

Yes []

No []

16. What is the Reason for using EC?

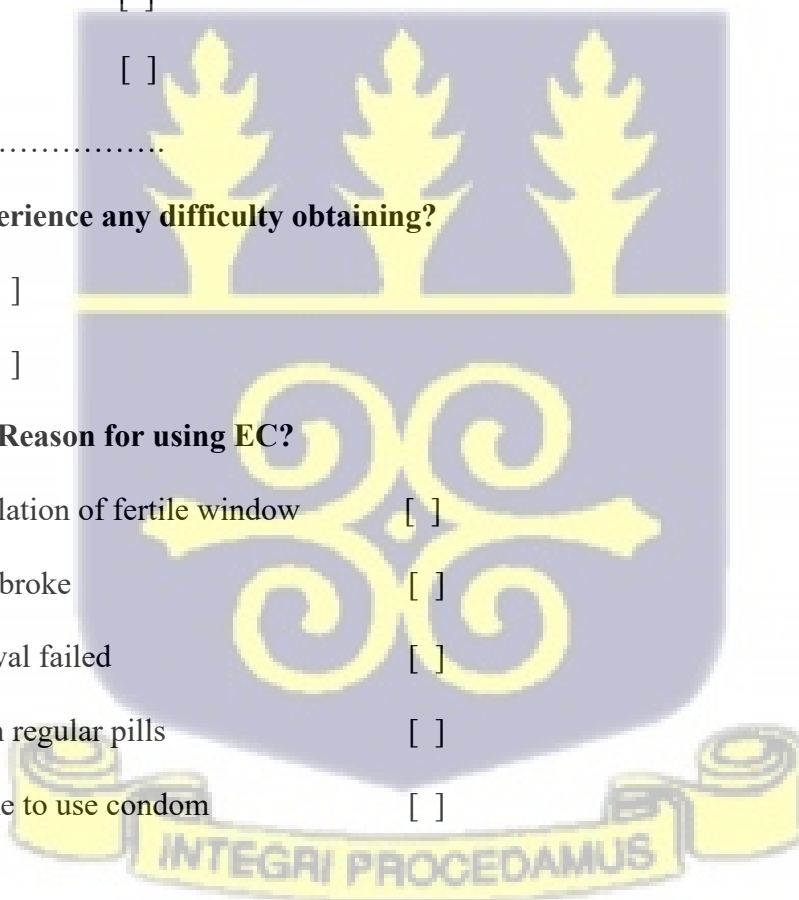
Miscalculation of fertile window []

Condom broke []

Withdrawal failed []

Forgotten regular pills []

Didn't like to use condom []



17. Are you currently using any emergency contraceptives?

Yes []

No []

If no to #17 move to #18, if yes to #17, move to #19

18. If no, why are you not using any method?

Fear of side effects []

Non-affordability []

Lack of information on emergency contraceptives []

Others

19. If yes, where do you get the emergency contraceptive services?

Hospital []

Pharmacy shop []

Clinic []

Others.....

20. What are the reasons for using the method?

Minimal side effect []

Affordable []

Convenient []

Easy to use []

others (specify).....

21. For how long have you been using this method?

Less than 6 months []

6 months []

1 year ☐

2 years ☐

5 years ☐

more than 5 years ☐

22. Will you recommend a friend or relative to use emergency contraceptives?

Yes ☐

No ☐

23. If Yes /No why?.....



SECTION D: THE FACTORS THAT INFLUENCE THE USE OF EMERGENCY CONTRACEPTIVES AMONG FEMALE STUDENTS IN THE LA DADE KOTOPON MUNICIPAL AREA.

Please rate the following factors on a 5-point Likert scale of 1 to 5, where **strongly agree – 5, Agree – 4, Uncertain – 3, Disagree – 2, strongly disagree – 1**

STATEMENTS	SD	D	U	A	SA
1. Cultural beliefs and norms in the La Dade Kotopon Municipal Area influence female student's decision to use emergency contraceptives.					
2. Religious teachings and beliefs affect the willingness of female students to use emergency contraceptives in the La Dade Kotopon Municipal Area					
3. Peer pressure and friends' opinions significantly impact female students' decisions to use emergency contraceptives.					
4. Parental attitudes and guidance play a crucial role in whether female students choose to use emergency contraceptives.					
5. The level of education and awareness about emergency contraceptives influences their use female student's.					
6. The ease of accessing health services and obtaining emergency contraceptives influences their use among adolescents.					

7. The cost of emergency contraceptives is a significant factor in their usage among adolescents.					
8. Concerns about confidentiality and privacy affect adolescents' willingness to use emergency contraceptives.					
9. The attitudes and approachability of healthcare providers influence female student's decisions to use emergency contraceptives.					
10. Exposure to information through media and other sources affects female student's awareness and use of emergency contraceptives.					



APPENDIX II

PART I: INFORMATION SHEET

Introduction

My name is Kwaw Fobri, a Master of Public Health student at the University of Ghana. As part of the academic requirements, I am conducting research on *Emergency Contraceptive Use Among Female Senior High School Students In The La Dade- Kotopon Municipal Area, Accra - Ghana*. and I will like to invite you to participate in this study. You do not need to decide immediately to participate.

I will explain the details of this consent form to you so that you understand what the study entails.

Purpose and Nature of the Study

Researching and addressing contraceptive use will go a long way to prevent teenage pregnancies and abortions in the La Dade- Kotopon Municipal Area, Accra

The information you will provide will help us to determine the support available for your school in terms of contraception.

Right to Participant: You have the right to withdraw from participating after you have consented to participate in this research without it affecting you.

Benefits: There are no direct benefits to you as an individual. Findings will be communicated to authorities for interventions to be taken to help other adolescents like yourself prevent unintended pregnancies.

Potential Risks and Discomforts

No invasive procedure will be performed. Your views and decisions are highly respected. In participating in this study, I will be asking you to share some personal views and experiences concerning emergency contraceptive use with me and you may feel uncomfortable talking about some of these issues. You do not have to answer every question or take part in the research if you don't wish to do so.

Freedom to withdraw: Also, you may withdraw from the study at any time that you wish. I will allow you at the end of the interview to review your responses, and you can ask to change any responses that you want. You do not have to give me any reason for withdrawing.

Additional Costs and Compensation You will not have to spend money in partaking in this study and you will not be compensated for participating. If you agree to participate in the study, you will only have to spare 5 minutes of your time to answer the questions I will ask.

Confidentiality

No information shared with me will be disclosed to anyone who is not part of the study team and I will not need your name in this study. The information that I will collect from this study will be used only for academic purposes.

Contacts for Additional Information

If you have any questions, you can ask them now or later. If you wish to ask questions later, you may contact

Kwaw Fobri

School of Public Health, Legon

Mobile: 0248741363

Email: kwawlampard@gmail.com

Nana Abena Atatu

GHS-ERC Administrator

Mobile: 0503539896

Email: ethics.research@ghs.gov.gh



PARTICIPANT CONSENT FORM

STUDY TITLE: Emergency Contraceptive Use Among Female Senior High School Students in the La Dade-Kotopon Municipal Area.

PARTICIPANTS' STATEMENT

I acknowledge that I have read or have had the purpose and contents of the Participants' Information Sheet read and all questions satisfactorily explained to me in a language I understand (English). I fully understand the contents and any potential implications as well as my right to change my mind (i.e. withdraw from the research) even after I have signed this form.

I voluntarily agree to be part of this research.

Name of Participant.....

Participants' Signature OR Thumb Print.....

Date.....

INVESTIGATOR STATEMENT AND SIGNATURE

Brief statement or declaration that investigator has given enough information to participants to make informed decisions. (Example: I certify that the participant has been given ample time to read and learn about the study. All questions and clarifications raised by the participant have been addressed.)

Researcher's name.....

Signature

Date.....

CHILD ASSENT FORM

Introduction

My name is **Kwaw Fobri** and I am from the Department of Population, Family and Reproductive Health at University of Ghana. I am conducting a research study entitled “**Emergency Contraceptive Use Among Female Senior High School Students in the La Dade-Kotopon Municipal Area**”. I am asking you to take part in this research study because I am trying to assess the prevalence and knowledge level of female senior high students in the La Dade-Kotopon Municipal Area. This will take 10-15 minutes of your time as you will be required to answer some structured questions.

General Information

If you agree to be in this study, you will be asked to give answers to questions which will be administered by the researcher and his trained research assistants. It is estimated to last between 10-15 minutes with your permission. You have the right to withdraw from the study even after consenting without any consequences. You will also be free to decline to answer questions you consider very sensitive or seek clarification about anything regarding this study.

Possible Risks and Discomforts

The study will take a maximum of 20 minutes of each participant's time. No major risk is expected in this study.

Possible Benefits

Findings will be communicated to authorities for interventions to be taken to prevent future occurrences.

Confidentiality

During the data collection process, each participant's anonymity will be protected, and any additional personal information that could allow for identification will be excluded. To protect privacy and confidentiality, the process will take place in appropriate settings, participation is voluntary, and participants have the right to withdraw from participation.

Compensation

No monetary benefit will be given in this study.

Voluntary Participation and Right to Leave the Research

Participation is voluntary, you can withdraw from participation anytime you feel uncomfortable with the process.

Contacts for Additional Information

You may ask the principal researcher for any questions about this study. You can call me on +233248741363 or talk to me the next time you see me.

Please talk about this study with your house masters if you have doubts before you decide to participate. I will also ask permission from your house masters before you are enrolled into the study. Even if your house masters say “yes” you can still decide not to participate.

VOLUNTARY AGREEMENT

By making a mark or thumb printing below, it means that you understand and know the issues concerning this research title **“Emergency Contraceptive Use Among Female Senior High School Students in the La Dade-Kotopon Municipal Area”**.

If you do not want to participate in this study, please do not sign this assent form. You and your house masters will be given a copy of this form after you have signed it.

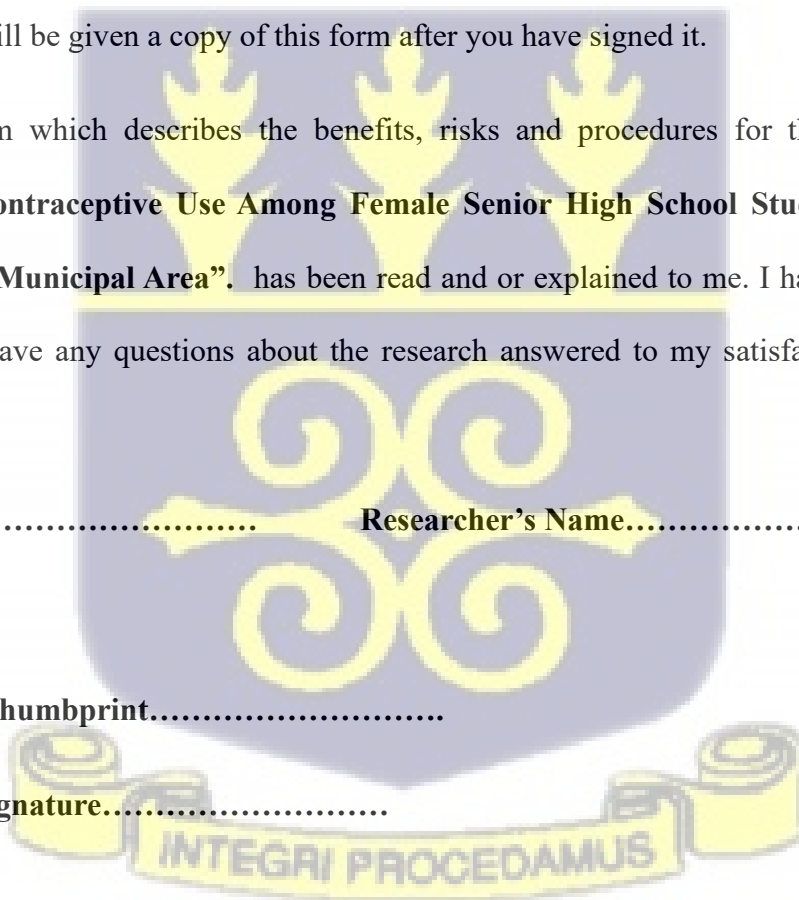
This assent form which describes the benefits, risks and procedures for the research titled **“Emergency Contraceptive Use Among Female Senior High School Students In The La Dade-Kotopon Municipal Area”**. has been read and or explained to me. I have been given an opportunity to have any questions about the research answered to my satisfaction. I agree to participate.

Child’s Name..... Researcher’s Name.....

Child’s Mark/Thumbprint.....

Researcher’s Signature.....

Date:



STATEMENT BY HOUSEMASTER CONSENTING TO ALLOW THE MINOR'S PARTICIPATION IN THE STUDY

I have read this informed consent document and the materials contained in it has been explained to me verbally. All my questions have been answered, and I freely and voluntarily choose to consent to my student's participation in the study.

Housemaster's Name.....

Housemaster's Signature.....

Date:



APPENDIX III- ETHICAL APPROVAL LETTER

GHANA HEALTH SERVICE ETHICS REVIEW COMMITTEE

*In case of reply the
number and date of this
Letter should be quoted.*



My Ref. GHS/RDD/ERC/Admin/App/24/296
Your Ref. No.

Research & Development Division
Ghana Health Service
P. O. Box MB 190
Accra
Digital Address: GA-050-3303
Mob: +233-50-3539896
Tel: +233-302-960628
Email: ethics.research@ghs.gov.gh
28th June 2024

Kwaw Fobri
P.O. Box 101
Osu-Accra

The Ghana Health Service Ethics Review Committee has reviewed and given approval for the implementation of your Study Protocol.

GHS-ERC Number	GHS-ERC: 080/04/24
Study Title	Emergency Contraceptive Use Among Female Senior High School Students in the La Dade Kotopon Municipal Area, Accra-Ghana.
Approval Date	28 th June, 2024
Expiry Date	27 th June, 2025
GHS-ERC Decision	Approved

This approval requires the following from the Principal Investigator

- Submission of a yearly progress report of the study to the Ethics Review Committee (ERC)
- Renewal of ethical approval if the study lasts for more than 12 months,
- Reporting of all serious adverse events related to this study to the ERC within three days verbally and seven days in writing.
- Submission of a final report after completion of the study
- Informing ERC if study cannot be implemented or is discontinued and reasons why
- Informing the ERC and your sponsor (where applicable) before any publication of the research findings.

You are kindly advised to adhere to the national guidelines or protocols on the prevention of COVID -19

Please note that any modification of the study without ERC approval of the amendment is invalid.

The ERC may observe or cause to be observed procedures and records of the study during and after implementation.

Kindly quote the protocol identification number in all future correspondence in relation to this approved protocol

SIGNED.....
Mr. Kofi Wellington
(GHS ERC Chairperson)

Cc: The Director, Research & Development Division, Ghana Health Service, Accra

INTEGRA PROCEDEMUS