UNIVERSITY OF GHANA

SCHOOL OF PUBLIC HEALTH

COLLEGE OF HEALTH SCIENCE

EMERGENCY CONTRACEPTIVE USE AMONG FEMALE STUDENTS AT THE ACCRA TECHNICAL UNIVERSITY

BY

EMMANUELLA BAAH-NYARKOH

(10701604)

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

JULY, 2019

DECLARATION

I, EMMANUELLA BAAH-NYARKOH hereby declare that aside references to other people's works which I have duly acknowledged, this dissertation is as a result of my independent work under supervision. I further declare that this dissertation has not been submitted anywhere in this institution or in any other university elsewhere**.**

---------- ----------

EMMANUELLA BAAH-NYARKOH PROF. PHILIP BABA ADONGO

(STUDENT) (ACADEMIC SUPERVISIOR)

DATE……. DATE…….

DEDICATION

This project is dedicated to God Almighty and to my family for their support throughout the program. To God be the Glory.

ACKNOWLEDGMENT

I am grateful to the Almighty God for the strength and grace to go through this program successfully, and for His continues blessing and favor upon my life.

Special appreciation to my family for the support and to my Supervisor Prof. Philip Baba Adongo whose pieces of advice and insight led to the completion of this dissertation.

I also owe special gratitude to my research assistants who helped in administration of the questionnaires.

I would like to express my profound appreciation to the management and staff of Accra Technical University for their cooperation and support during the data collection and allowing me use their facility. I am extremely grateful to the respondents, without whose cooperation this whole project work would have been a nine day wonder.

I am grateful to the staff of Mataheko Pharmacy for their support during my program.

ABSTRACT

Introduction: Emergency contraception (EC) is unique among modern contraceptive methods in its capacity to prevent pregnancy after sex. The consequences of unintended pregnancies demand for efficient and effective use of Emergency Contraceptives as early childbearing impacts negatively on the educational prospects of female students. The aim of this study was to assess the knowledge and determine the use of emergency contraception among female students of Accra Technical University, Accra.

Method: The study design was a descriptive cross-sectional survey using quantitative research method. Stratified purposive sampling method was used to stratify the female students population by year and course studied. Summary statistics were presented using tables. Chi Square test was used to determine the statistical association between emergency contraceptive use and independent variables of interest. Logistic regression was used to determine the odds ratio of factors that influence knowledge, perception and the use of emergency contraceptives.

Results: Findings showed a mean age of 23 years and ranged between 17 to 35. The study found that 78.80 % had low knowledge on emergency contraceptives and 26.03% had high knowledge on emergency contraceptive use. The proportion of female students who had ever used an emergency contraceptive was 57.50%. Support from friends, affordability and availability of Emergency contraceptives are factors influencing choice to use emergency contraception. Marital Status and place of stay were associated to the use of emergency contraceptives (AOR=2.55; 95% CI 0.9, 7.27, p= 0.017) and (AOR=0.52, 95% CI 0.28, 0.99, p= 0.046) respectively.

Conclusion: This study would help provide information about knowledge and use of emergency contraceptives among female students at the Accra Technical University. This information could serve as a guide to all stakeholders for the provision of accurate and relevant health information and skills to students of Accra Technical University.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

DHS	Demographic Health Survey
EC	Emergency Contraception
HIV	Human Immunodeficiency Virus
HND	Higher National Degree
IUD	Intra-uterine device
STI	Sexually Transmitted Infection
WHO	World Health Organization

CHAPTER ONE

INTRODUCTION

1.1 Background

An integral part of a healthy society is widespread access and rights to sexual and reproductive health (Dawson, Tran, Westley, Mangiaterra, & Festin, 2014). It is reported that around the globe, 222 million women want to prevent pregnancy but are not using efficient, modern contraceptive methods. This leads to an approximately 86 million unintended pregnancies, 33 million births that are not planned, and 20 million risky abortions per year. Complications of pregnancy and birth are the major causes of death for young women often associated with lack of access to service, information and care (Dawson et al., 2014). In 2012, the global incidence of unplanned pregnancy in women aged 15- 44 was 53 per 1,000 females. With the exception of China, the unintended worldwide rate of pregnancy rises to 61 per 1,000 females. Africa had the largest regional rate and Europe and Oceania had the lowest. The largest sub regional levels in Eastern and Middle Africa were 108, Northern, Southern and Western Europe had the lowest rates which were 35, 35, and 27, respectively (Somba, Mbonile, Obure, & Mahande, 2014). Contraceptive use in many areas of the globe has risen, particularly in Asia and Latin America but continues to be low in sub-Saharan Africa. Contraception use has increased slightly worldwide, from 54% to 57.4% from 1990 to 2015. The percentage of females within the age of 15 to 49 reporting using a modern contraceptive method increased slightly within 2008 and 2015 on a regional basis (Yemaneh, Sayih, Niguse, Lema, & Tsegaye, 2018).

In Africa it rose from 23.6% to 28.5%, in Asia it mildly increased from 60.9% to 61.8%, and i n Latin America and the Caribbean it held steady at 66.7% (Sedgh, Singh, & Hussain, 2014).

Emergency contraception (EC) is unique in its ability to prevent pregnancy after sex among modern methods of contraception. EC has yet to achieve its complete potential from a worldwide view: many remain unaware of the alternative (Westley & Schwarz, 2012). The knowledge levels among women about EC in Columbia keeps on growing with 66% and 49% in Ukraine. Chad and Timor-Leste recorded low with 2%. The percentage of women who have ever engaged in sexual intercourse were between 0.1 and 12 per cent in Chad and Colombia respectively. The knowledge and usage of EC by folks in these areas varied dramatically (Union, Consortium, & Contraception, 2014). These same variations were predominant in Africa especially in Kenya with rise from 2% to 40%. However, the use of EC by sexually active women varied in Chad and Ghana by 0.1% and 4% respectively. The women with knowledge about EC in Asia ranged from 3% to 29% for the people of Timor-Leste and Maldives respectively. It was also recorded that the usage rates ranged from 0.1% in Cambodia, Nepal and Timor-Leste to 0.9% in Pakistan. The rate of information about EC grew deeper in Europe and Western Asia especially in Azerbaijan and Ukraine with 5% and 49% respectively. It was also recorded that the rates usage of EC among sexually active women were reduced in these countries (Union et al., 2014).

In sub-Saharan Africa, females aged 15–24 years are responsible for 44 percent of unintended births. Emergency contraception is recommended for use within three days, but the sooner after the act of intercourse, the higher its effectiveness. Any woman or girl of reproductive age may use emergency contraception to prevent unwanted pregnancy, according to WHO (2018). Emergency Contraception is used globally in circumstances such as unprotected

intercourse, worries about potential contraceptive failure, misuse of contraceptives and sexual assault where there is no coverage for contraception (WHO, 2018).

The effects of unintended pregnancies require that emergency contraception be used efficiently and effectively. There is a rising concern in the probable impact that EC could have on unplanned pregnancies and unsafe abortions in Ghana and Sub-Saharan Africa as a whole. This study therefore assesses Emergency Contraceptive use among the female students of Accra Technical University to help inform contraceptive policy and use.

1.2 Problem statement

In developing countries, unplanned pregnancy mostly results in maternal mortality and morbidity. Every year around the globe, about 210 million females become pregnant, of whom about 75 million (36%) are unplanned and/or unwanted (Amalba, Mogre, Appiah, & Mumuni, 2014). WHO estimates that in every eight minutes, a female dies from unsafe abortion (Amalba, Mogre, Appiah, & Mumuni, 2014).

Sub-Saharan countries including Ghana have high rate of unintended pregnancies due to inadequate access to women's reproductive health services (Sedgh, Singh, & Hussain, 2014). This demonstrates restricted access to facilities for family planning and lower reproductive health rights. Unintended pregnancies boost stress levels, risky behavior, delayed initiation of prenatal care, economic status and the overall quality of life of women and their household are threatened. Despite several engagements to reduce if not eradicate mother and child death globally through the century, the health consequences of unplanned pregnancies are a significant public health concern, particularly for women residing in developing countries (Sedgh, Singh, & Hussain, 2014).

Pregnancy unplanned is one of the biggest issues a young woman student can encounter and early childbearing has a negative impact on female academic opportunities by forcing them to quit school, which could jeopardize the academic advancement of the student and future careers (AUS, 2010). This may be especially true for students because they are not ready to take up parental responsibility. And also, because unwanted pregnancy is highly stigmatized in most African societies and Ghana especially among college and tertiary students who are not married. For these reasons therefore, many who wish to avoid this societal stigmatization will either resort to Emergency Contraceptive use or will seek to have an abortion under unsafe conditions/sub-standard medical environment or by an unskilled person or both.

Emergency contraceptive (EC) provides the last opportunity of preventing pregnancy of all the methods of contraception available. There are females who also use emergency oral contraceptives as a family planning method each time they have unprotected sex. However, are these females aware that emergency contraception is not a regular family planning method, or whether they know the side effects of EC, how EC works, its availability and what advice is given to them and by who? Others do not also use EC which could be as a result of exaggerated side effects from previous use or misinformation from peers or some service providers. This study seeks to examine the use of EC among students to help inform EC consumption and contribute to policy on its role in family planning.

1.3 Significance of Study

Contraceptive use is a significant approach for preventing unwanted pregnancy and preventing abortion that is induced. Currently in Ghana, EC is a predominant concept in avoiding pregnancy after sexual intercourse without the use of condoms and forgotten pills. Victims of rape instances also use EC pills (Amalba et al., 2014). Very comprehensive

campaigning and dissemination of contraceptive information has taken place. About 47.4% females in Ghana have used contraceptive before with about 20% of people still using it (Amalba et al., 2014).

The introduction of EC Pills in Ghana has had fewer survey on the concept in assessing knowledge and use of EC Pills among reproductive females. There are few studies which have documented the use of EC among female students in Ghana and very little attention is given to aspects such as knowledge, perception and use of ECs among females in research.

Health service providers such as doctors, nurses, pharmacists should make family planning information accessible to the general public. Females who patronize them too should be made to understand how the method works and help them in making informed decisions.

Emergency contraceptives are cost-effective and extending access will have a significant effect on lowering unintended pregnancy rates.

The findings of this study will help in the interventions to improve upon policies which will be formulated and reviewed. The study will also serve as a guide in the creation of framework by the relevant stakeholders about health information and skills. The study will serve as a tool for better health delivery and finally the study will also add up to existing literature.

1.4 General objectives

To investigate the use of emergency contraceptives among female students at the Accra Technical University

1.5 Specific objectives

1. To assess the knowledge and perception about emergency contraceptive use among females

2. To identify factors that influence a female's choice of emergency contraceptive use

3. To determine emergency contraceptive use among female students

1.6 Research Questions

1. What is the level of knowledge and perception about the use of emergency contraceptives?
2. What factors influences choice of an emergency contraceptive use among female students?
3. What is the use of emergency contraceptives among female students?

1.7 Conceptual framework

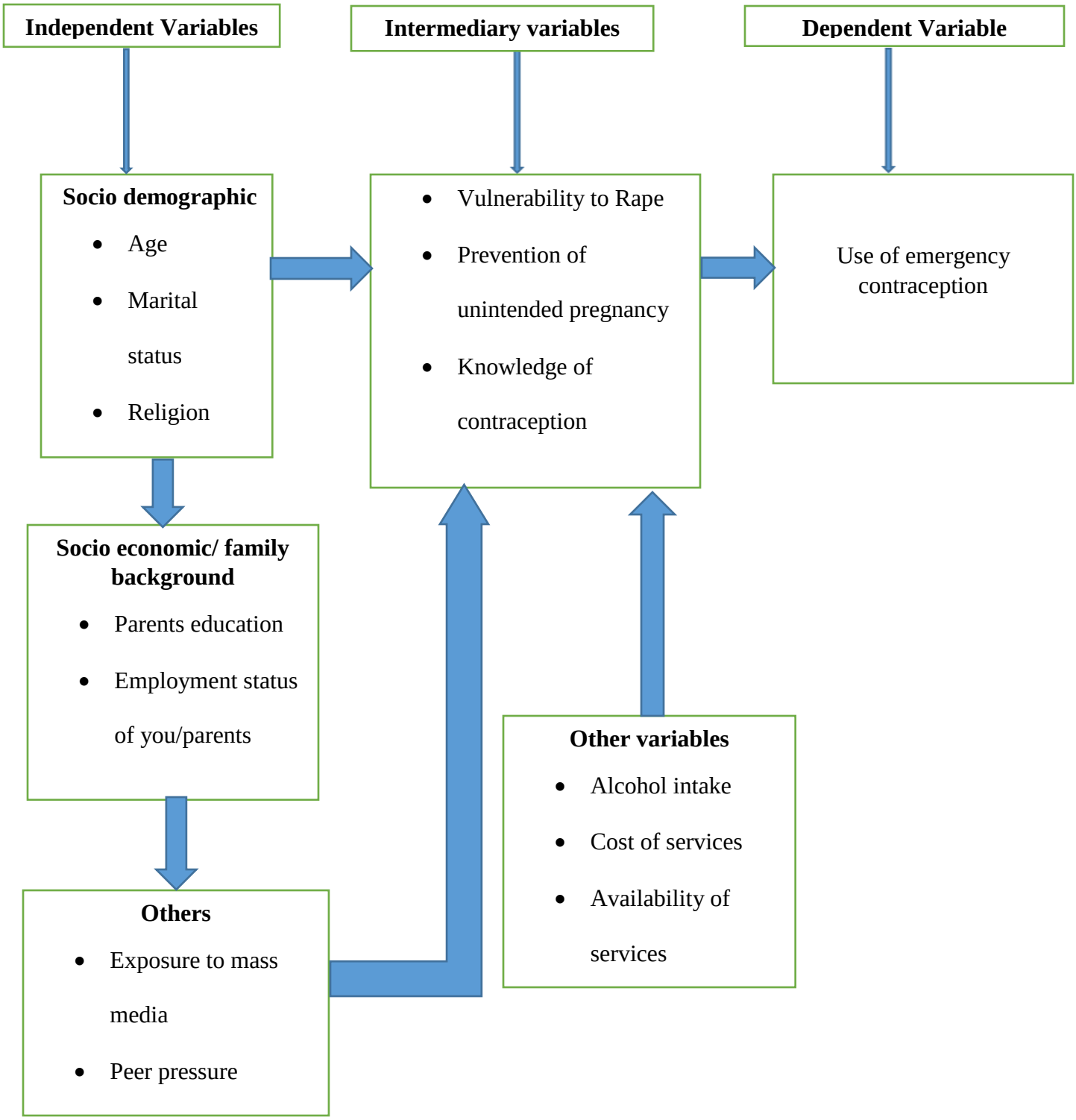

Figure 1: Conceptual Framework **Adapted from (Desta and Regassa, 2011)**

Narrative of Framework

From the conceptual framework, factors that influences the use of emergency contraceptives are social demographic factors such as age, marital status, religion, education and socio-economic factors such as education of parents and employment status. These factors affect the level of knowledge and perception an individual has on emergency contraceptives and the use is based on the knowledge users have of it. Apart from these factors, prevention of unintended pregnancy and peer pressure which are the intermediate variables also influence the use of emergency contraceptives. Also, health facilities or related factors such as cost, availability and access to the service also affects the use of emergency contraceptives. Regulations from religious institutions discourages sexual deviancy which includes rape hence reduces one's vulnerability to rape. Religion ideologies influences vulnerability to rape by deciding what an ideal woman should look, act and be like and these prevents them from engaging in sexual activities which can lead to rape. According to a research carried out in 45 countries, the chances of having heard off or used a contraceptive usually had a correlation with wealth. However, the link between knowledge on the method and status of marriage differed among regions, females who were not married had the probability of more knowledge and usage of EC than married women in countries where variations were higher (Palermo, Bleck, & Westley, 2014).

CHAPTER TWO

LITERATURE REVIEW

2.1 Emergency contraceptive use

Emergency contraception, postcoital contraception or morning after pill is the method used by women to avoid unwanted pregnancy after unsafe sexual intercourse. In order to ensure their reproductive health and rights, timely access to EC is a significant component of the contraceptive services provided to women. Four countries in Europe restricts the age to buy Emergency Contraceptives Pills. Those in Bulgaria and the Czech Republic under the age of 16 and those in Finland under the age of 15 cannot buy Emergency Contraceptive Pills without a prescription from a doctor. Women under the age of 18 in Poland need parental consent to receive an EC prescription (Union et al., 2014).

The largest percentage of women who have ever used EC can be found in the UK (61%) and Sweden (59%). EC has ever been used by about 20 percent in most countries. Germany is the country with the lowest (13 percent) proportion. In countries where EC pills are accessible without a prescription, most females seem to prefer obtaining their EC pills directly from the pharmacy and less than 10% receive a prescription first. However, data from Spain and the United Kingdom indicate that about one-third of EC pills users acquire EC pills without a prescription in these nations, while the remaining two-thirds acquire EC pills from health facilities or hospitals (Larsson & Stanfors, 2014).

In Armenia, unmarried females were less likely to have heard of the method than married females hence differences in knowledge varied according to marital status. With the exception of Turkey, the method was much known among older females than the younger ones. Thus, women between 30 and 34 had less knowledge of the subject matter. Secondary and or higher educated women were more probable to have heard of EC in Albania, Jordan and Turkey than females with less than primary education (Koyama, Hagopian, & Linden, 2013). The probability of usage of EC were much higher in Ukraine's urban women settlers than of the rural folks. Sexually active unmarried women knowledge and usage of EC were higher than married ones. In Albania, Jordan, Moldova and Ukraine, the probability of using emergency contraception increased with wealth but not in Armenia or Turkey (Union et al., 2014).

In the USA, confidentiality, transportation, and embarrassment include concerns expressed by adolescents about accessing EC. Lack of awareness among suppliers and low levels of EC pills stock in many shops and pharmacies are barriers to access to EC (Ross & Hardee, 2013). Women who are not married in Bolivia had the propensity of deeper knowledge on the method (odds ratio, 1.7) so as Colombia (1.2) compared to presently married women in this region, and less knowledge on the subject matter in the Dominican Republic and Haiti. Although this association was comparatively weak in Nicaragua, the growing age correlated positively with hearing of EC. Illiterate females had more knowledge on EC than elite females (Haeger, Lamme, & Cleland, 2018).

Older females in Asia had the probability of higher knowledge of EC than 15–19-year-olds. Nepal had an exceptional case with no differences among females. Maldives had women ranged between 45 and 49 years old with greater chance of hearing EC. Those who had finished primary school were more likely to know about emergency contraception compared

to females with less than primary education. Females with some level of education in all studied Asian nations were more likely to learn about emergency contraception. The percentage of women who heard about the method usually grew with wealth, but the association with that in the Maldives was very weak. In India alone, urban females were more probable to hear of emergency contraception than rural women (Union et al., 2014).

In Sub Saharan Africa, research finds that modern contraceptives are on the increase generally but with a great deal of geographical variation. Among unmarried sexually active women, higher rates of use are noted than married women. Although use is increasing, there are also elevated rates of contraceptive discontinuation. Recent program initiatives mentioned include extending long-acting contraceptive choices, supporting and providing postpartum contraceptive methods, and relying for contraceptive outreach and service delivery on community health workers (Tsui, Brown, & Li, 2017).

Out of 24 countries in Africa, eight of these countries had reduced chances of hearing of emergency contraception among non-married women compared to presently married women (odds ratio range, 0.5 in Mali to 0.8 in Namibia), while previously married women had high chances of hearing of it in two out of 24 nations, Benin (1.4) and Liberia (1.9). However in Swaziland, unmarried women were considerably more probable to have heard of the method than presently married women (1.5). Younger females between ages 15 and 19 years were less likely to be informed on EC than older women in Southern Africa and Egypt, despite this assertion, there was no association between awareness and ages of females in Liberia. Education was positively associated with hearing of emergency contraception. For most African countries, the chances of hearing about emergency contraception also improved with wealth, although the distinction was low in some countries. Knowledge of emergency

contraception among women in urban areas was considerably greater than folks in rural areas. The use of emergency contraception among women who have had sex has usually improved with education (Larsson & Stanfors, 2014).

The wealth and method use relationship was much less pronounced than the wealth and knowledge relationship. Women were more probable to have used the method in three countries in urban areas than those in rural areas. Education is strongly correlated with the use of contraceptives, but the effect of a woman's education differs from context to region, culture and level of development (Larsson & Stanfors, 2014).

In the Sub-Saharan, education matters more for deciding between use versus non-use than for method selection. In addition, empowerment has little additional effect, net of everything else. Factors that mediate the effect of non-traditional empowerment and create methods use disparities are needed to be understood. Couple dynamics and the community impacts of education and attitudes of women can influence the reproductive behavior of a woman (Palermo, Bleck, & Westley, 2014). Findings from a study in Nigeria revealed that a large percentage of current EC users reported using EC more than once a month and as a major contraceptive method this shows the need for higher knowledge of the dynamics of repeat use, as well as the significance of ensuring accessibility and access to efficient, short-term, woman-controlled barriers and hormonal methods (Morgan, Keesbury, & Speizer, 2014).

2.2 The use of contraceptive in Ghana

Ghana Demographic and Health Survey argues that, at least one contraception method is used by sexually active people. Married women between the ages of 15-49 were used in the survey. As traditional methods, rhythm, withdrawal and folk methods are grouped together. Modern contraception methods in Ghana include female and male sterilization, oral hormonal pills,

intrauterine devices (IUD), male condoms, injectables, implants, vaginal barrier methods, female condoms and emergency contraceptive pills. Over the past 35years, the highest value of contraceptive prevalence in Ghana was 28.60% in 2015, while its lowest value was 5.20% in 1988.

In relation to the use of EC pills, a research conducted by Amalba et al (2014) disclosed the accessibility and affordability are factors that cannot be ignored. Religious and cultural has not hindered the use of EC pills and therefore health officials must make EC pills accessible to women.

Increasing education increases the use of contraceptive methods. For instance, 19% of married women without education use a contraception method compared to 34% of married females with secondary or higher education. Contraceptive use also tends to improve with the number of children living, from 21% among married women with no children to 30% among those with three or four children, after which it decreases moderately to 27% among those with five or more children Over the last six years, the use of any method of contraception and any modern method has risen somewhat, from 24% in 2008 to 27% in 2014 (DHS, 2014).

Unplanned pregnancies, unsafe abortions, as well as maternal morbidity and mortality have been averted as a result of the use of modern contraception. In 1996 and 2000, oral contraceptives and the Emergency Contraceptive pills (Postinor 2) were licensed respectively. Without prescription, eemergency contraceptives is easier to obtain from clinics and pharmacies (Mayhew, Osei, & Bajos, 2013). The emergency contraceptives on the market include are Postinor 2, Lydia, Lenor, Levon 2 which contains levonorgestrel 1.5mg.

2.3 Youth and Contraceptive use

Inadequate insight in sexual and reproductive health globally has resulted in unplanned pregnancy and HIV among youth especially youth women. These sexual behaviors include both positive and negative practices. Abstinence and condom use are positive practices and negative outcomes include unplanned pregnancy and spread of sexually transmitted diseases which occurs among youth. Knowledge in ccontraceptives and its usage are crucial indicators of sexual health among the youth (Grindlay et al., 2018).

A survey undertaken in Ethiopia indicated that, among those who reported having sexual intercourse, 82.97% reported using Emergency Contraceptive pills and 95% reported using Emergency Contraceptive pills among those with unprotected sex. Sexually active female undergraduate students who had unprotected sexual intercourse are using very elevated levels of emergency contraceptives pills (Yemaneh, Sayih, Niguse, Lema, & Tsegaye, 2018).

Results from a study in Central Ethiopia led to a strategy to reduce the short- and long-term impacts of unintended pregnancy among young girls in greater educational establishments. There is a need to increase university girls' knowledge of EC and to provide youth-friendly sexual and reproductive health facilities (Ass et al., 2010).

A research in Takoradi polytechnic also showed that emergency contraceptive awareness was high (74.7%) but use was low 28.4%. After unprotected sex, however, those who had basic EC awareness lacked thorough understanding of the content, efficiency and timing schedule. Sixty-seven percent had used emergency contraceptive pills more than once a year. Usage does not match a high level of ECP knowledge in this student population. Abuse and repeated use of emergency contraceptives could be curbed by teaching young adults on emergency

contraception with emphasis on content, efficacy and proper timing of use through multiple channels of communication (Manortey, Duah, & Baiden, 2016).

In young people, sexual behaviors and contraceptive use differ not only across countries and regions, but also within a specified country. Studies in Burkina Faso and Mali indicated that with greater rates of education, urban residence, and family wealth, the proportion of females who reported sexually active increased. However, none of these three factors affect sexual activity in Senegal. In Senegal, 4% unmarried women in the ages of 15 and 24 reported having been sexually active, regardless of their educational level. Young unmarried women in Burkina Faso, on the other hand, were closely double the likelihood of sexual intercourse as young unmarried and uneducated women (Kunene, 2013).

A research undertaken in Tanzania showed that the female students had a high knowledge of contraception. Most of the students were sexually active and sexual activity began at an earlier age. The contraception use frequency, however, is still low. Low contraceptive use indicates the need for an education program in sexual and reproductive health to encourage the use of contraceptive services in these settings. Reproductive health education programs should include the significance of using dual methods of contraception as a means of preventing pregnancy and preventing the transmission of HIV (Ass et al., 2010).

A study in South India among university students observed that among one-third of university students there was low awareness of EC pills. More than three-fourth respondents thought that EC pills should be provided with adequate guidance and advice by health care professionals. Misinformation or misconceptions such as EC pills can also prevent STDs and fear of side effects seen in few can be removed by counselling (Morgan et al., 2014).

Contraceptive use reduces the number of unwanted pregnancies in sexually active youth. However, young people must have a fair knowledge of different methods of contraceptives available before its usage. Among young women too, though the levels of knowledge of contraceptive use is high, its use is relatively low among married women. That notwithstanding, people with high level of education in the urban areas are usually associated with a high use of modern contraceptives especially young married women. Policies addressing women's knowledge of reproductive health and behavior can be enhanced by understanding young people's sexual behavior and contraceptive use (Kunene, 2013).

Increasing knowledge in this field will enlighten young females on their reproductive health and consider family planning as choice too. Invariably reducing the carnage of STIs such as HIV infection and less unplanned pregnancies among young people resulting in a healthier generation of families (Kunene, 2013).

2.4 Unintended Pregnancy

Pregnancies that are unintended have dangerous implications among women so as their families, leading to unsafe abortions, delays in prenatal care, bad maternal health, decreased quality of mother and child relationships, bad developmental results for children, abuse be it physically or emotionally, enhanced risk of babies' low birth weight, and enhanced maternal morbidity and mortality (Eliason, Baiden, Yankey, & Awusabo-Asare, 2014).

In countries where unsafe abortion is rampant, induced abortions induced by unintended pregnancies have deleterious implications. Due to unsafe abortions, many lives have been lost and millions more endure non-fatal health effects. In traditional societies, where big families are eminent, the percentage of unintended pregnancies may be small than in modernized communities where contraceptive use is on the increase. Higher ratios are comparatively

recorded in Eastern Europe. In recent times, South America has recorded lower family size with usage of contraceptives not meeting demand. Consequently, as family planning programs increases, it does not invariably correspond to reduction in unintended pregnancies (WHO, 2011).

In 2012, 222 million women in third world countries fell short in the use of modern contraceptives (Singh and Darroch, 2012). Inversely, 54 million unwanted pregnancies could have been avoided yearly if contraception use target had been reached not excluding averting 21 million and 26 million unplanned births and abortions respectively. Unintended pregnancies could be reduced drastically when services are improved for existing female users (Sedgh, Singh, & Hussain, 2014).

Sub-Saharan countries including Ghana is an evidence to limited access to reproductive health care, especially family planning, insufficient rights about reproductive health, and less empowerment of women. Partly because of this existing situation, achieving MDGs 3, 4 and 5 in most sub-Saharan countries especially Ghana would be difficult (Westley & Schwarz, 2012).

Studies in North America, Asia, the Middle East and Latin America disclosed contraceptive failure, inadequate access to contraception, religious beliefs and poor understanding of contraception, fertility and pregnancy, previous unintended pregnancy, inadequate education in reproductive health, desire for at least two children, parity of five, lack of relationship communication or support, husband's reluctance are unintended pregnancies predictors (Palermo et al., 2014).

2.5 Factors Associated With the Use of Contraceptives

Factors that have inhibited the use of contraceptive in Sub-Sahara Africa has been systematically reviewed between 2005 and 2015 in the literature. A total of 58 studies from 12 sub-Saharan African countries were engaged in the research. It was revealed that, the use of contraceptives factors were categorized into two. Thus, positive and negative. Misconstrued side effects, use of contraception among women, disfavor among male partners, cultural and social standards concerning fertility were negative elements restricting or decreasing contraceptive use. Education, jobs and interaction with male partner were among the positive factors. The use of contraceptive is a multidimensional issue in sub-Saharan Africa which demand wide-ranging intercession from the community and systems aimed at counteracting adverse perceptions and misinformation (Blackstone, Nwaozuru, & Iwelunmor, 2017).

A research was conducted examining the association between certain chosen socio-demographic factors including education, awareness of contraceptive methods availability, methods insight, employment and marital status, residence region, choices for fertility and ethnicity, and its impact on present contraceptive use in Ghana, and it has been statistically demonstrated that all factors are important. The most significant variable was knowledge of the method of contraception. Periodic sensitization is suggested to be a key component of the mandate of contraceptive providers for both public and the user. This must include the overall advantages associated with the methods of contraception. Establishment of complaints centers to decrease unmet women's needs (Adjei, Asiedu, & Sarfo, 2014).

The socio-demographic determining factors of the usage of modern contraceptive by females in Ghana's Asuogyaman district disclosed that, while about 97% of the survey participants

had knowledge of not less than one modern contraceptive method, only 16% of them used modern contraceptives. It also showed that in the research area, the level of education, place of residence, and status of job considerably influenced modern contraceptive use among females. The primary barriers to modern contraceptive usage in the research area were the side effects fears, more children as against family planning, and disapproval of the partner. It was suggested that health employees should tackle attitudinal factors including side effects fears and high fertility choices in relation to availability and accessibility to family planning centers (Teye, 2017).

The Ghana Demographic Health Survey in 2014 was used in assessing the relationship between sexual empowerment of women and the use of contraception among non-pregnant married and partnered women in Ghana who has no desire to get pregnant in the next three months was examined. Increasing rates of sexual empowerment have been discovered to be linked to contraceptive use, after adjustment for contraceptive use demographic predictors. Contraceptive use are associated with formal education, increased wealth and unmarried partnership, whiles Muslims women are not likely to use contraceptives than the female Christians. These results show that inequality among gender in sexual empowerment, especially among the less privileged women, need a better bargain to obtain reproductive health services (DHS, 2014).

A survey conducted in Nkwanta also revealed that, less female elites, beliefs be it social or cultural and communication among couples also played a critical part in the modern family planning usage. Workable facilities opening hours and distance to health centers affected the use of contemporary contraceptives (Eliason, Awoonor-Williams, Novignon, & Aikins,

2014). There are few studies which have documented the use of EC among female students in Ghana and very little attention have been given to aspects such as knowledge, perception and use of ECs among females in research so this study seeks to fill that gap in literature.

CHAPTER THREE

METHODS

3.1 Introduction

This chapter describes the methodology employed in this study. Issues discussed include study area description, research design, study variables, study population, sampling method, sample size, processes of data collection, quality control, data processing and analysis, and ethical consideration.

3.2 Study Design

For data collection and analysis, the research adopted a descriptive cross-sectional survey design. Quantitative research method was employed in generating the required data. A survey is less expensive and less time involving. The descriptive survey is also very useful for generalizing the knowledge, perception and use of emergency contraceptives at Accra Technical University from a sample to a population.

3.3 Study Area

The Accra Metropolitan District is one of the 254 Metropolitans in Ghana with a population of 1,665,086 in the Greater Accra Region as of 2010.It covers an area of roughly 60 km2 and

includes Ablekuma Central, Ablekuma South, Ashiedu Keteke, Ayawaso Central, Okaikoi South and Osu Klottey sub-metropolitan districts councils. The Accra Metropolitan District is one of the 10 districts that make up the Accra Metropolitan Area, an area that serves as the capital of Ghana.

The Research was carried out at the Accra Technical University. It was the first Technical University to be established. It is in the Accra Metropolitan District and located in the midst of other high-profile corporate businesses and institutions. Accra Technical University is located in Accra's Central Business District. Accra Technical University is opposite Movenpick and Novotel hotels. Accra Technical University has 5 faculties which are Faculty of Business, Faculty of Built Environment, Faculty of Engineering, Faculty of Applied Science and Faculty of Applied Arts.

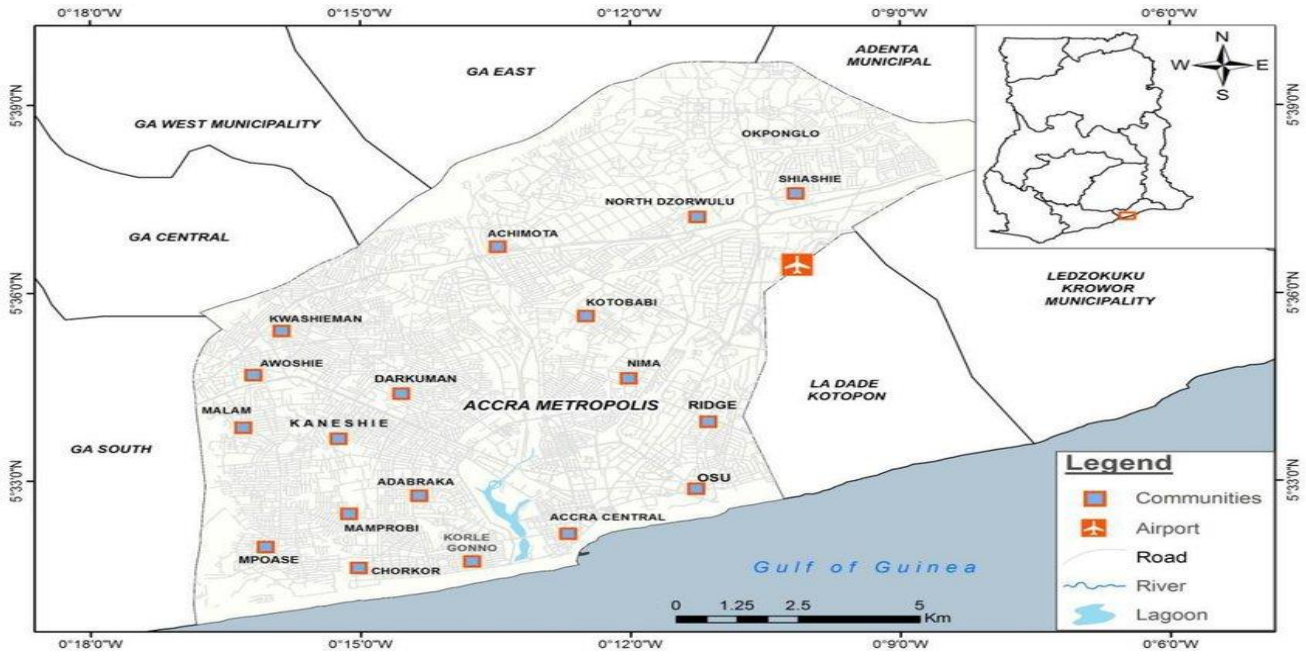

Fig.2 A map showing Accra Metropolis District

3.4 Variables

Dependent variables

Emergency contraception use

Independent variables

a. Socio-demographic factors

b. Employment status of you and your parents

c. Knowledge of contraception

d. Peer pressure

e. Family planning acceptance

3.5 Study Population

The institution currently has a twelve thousand, six hundred and eighty-five (12,685) student population. The study targeted the HND students comprising of Faculty of Business, Faculty of Built Environment, Faculty of Engineering, Faculty of Applied Science and Faculty of Applied Arts.

3.6 Sampling

Accra Technical University has five faculties namely Faculty of Business, Faculty of Built Environment, Faculty of Engineering, Faculty of Applied Science and Faculty of and Applied Arts. There are regular students, Evening students and Weekend students. For the purpose of this study sampling was done among only the regular students in year one to year three.

3.6.1 Sample Size Calculation

In order to reduce error, this study adopted the sample size from a previous study on Factors associated with the use of emergency Contraceptive Pills among students of the Takoradi

Polytechnic in Ghana. It was documented from a previous study that only 28.4% of women had used EC (Manortey, Duah, & Baiden, 2016). Taking this information as input, the sample size was calculated using the formula adopted from Cochran (1977):

$$n = \frac{z^2 P(1-P)}{e^2}$$

$$n = \frac{1.96^2 * 0.284 * (1-0.284)}{0.05^2} \quad 312.5 \approx 313$$

Where P = proportion of use of EC from previous study is 28.4%;

z2 = 95% confidence interval corresponding to the value of 1.96

and e2 = proportion of sampling error tolerated at 0.05% (to increase the accuracy).

Assuming a non- response rate of about 10%, 313 x 0.1 = 31.3 ≈ 32

Actual sample size is 313 + 32 = 345

3.6.2 Sampling Technique

This study used stratified random sampling. Student population was stratified by year group and also by the course. The sample size of 345 was allocated to the various faculties considering the year and course. With the calculations, each class selected got 23 questionnaires. Purposive sampling was used in these classes. The respondents were contacted privately and introduced to the study. They were given the opportunity to opt out if they did not want to participate. This process was adhered to strictly until the calculated sample size of 345 was attained. Although purposive sampling as a technique is a weak method, it was useful here because it enabled me in the selection of respondents that are very important in answering the questionnaires and fell within the female student group. The identity of the selected students was protected, as no name or index number of students was taken as part of the data collection process. A research assistant was trained to assist in the administration of structured questionnaire with closed ended questions written in English for data collection.

Items in the questionnaire are basically focused on the main and specific research objectives and reviewed literature.

3.6.3 Inclusion Criteria

To be involved in the study the individual must first be a female regular HND student of Accra Technical University. The research included all students who met the above criteria and were ready to participate in the research.

3.6.4 Exclusion Criteria

One is excluded from the study if the individual is a female part time student HND student of Accra Technical University.

3.7 Data collection Technique

At the time of the study, a structured questionnaire was designed and administered to regular Accra Technical University female students. The questionnaire was based on the study's objectives. The researcher employed assistants and trained them on data collection. Emphasis was put on data collection methods, rapport creation, privacy and confidentiality assurance. It provided the meaning of the items and the right response ticking. Also, attention was paid to skipping patterns used in the questionnaire. Each student was told the purpose of the study and how questionnaire should be answered. Those who consented to take part in the research were given the questionnaire to answer.

3.8 Quality Control

Data collected was checked to guarantee accuracy of the information gathered. Questionnaires was checked for completeness before acceptance. Questionnaires were also

numbered to guarantee precision during data entry. Errors detected during the data collection such as incomplete forms was checked before collecting.

3.9 Data Analysis

Descriptive statistics were used for the purposes of this study to describe the knowledge and perception of EC use. Data was summarized into percentages, proportions and frequencies. Mean and median were calculated for age while figures were presented in tables. Data was analyzed using univariate (percentage), bivariate and multivariate analysis/binary logistic regression. To determine the associations between respondent's socio-demographic characteristics and other variables with the dependent variable, Pearson's chi-square was conducted at 95% confidence interval (CI). Logistics Regression was performed to determine the influence and the strength or association of some selected independent variables on the dependent variable.

3.10 Training of Research Assistants

Before embarking on the data collection exercise, a day training session for the research assistants was organized by the researcher with the aim of preparing them with the required skills needed to assist in the study. There was a discussion on the purpose of the study, ethical issues, how to administer the questionnaire, and proper handling of the questionnaires to avoid damage.

3.11 Pre-Test/ Pilot Study

A pre-test of the questionnaires and methodology of this study was done at University of Ghana. Based on the feedback from the piloting, questions were reworded, reformatted, and reordered and re-tested, where necessary.

3.12 Ethical Consideration

Ethical clearance was obtained from the Ghana Health Service. Participants were chosen based on their willingness to participate in the study. Also, a written consent was sought from each participant before enrolment into the study. Participants were told about their rights to withdraw from the study at any point without any form of coercion. We assured that whatever responses provided would be kept strictly confidential and would not be disclosed to anyone. Names were not be attached to any of the answers provided.

CHAPTER FOUR

RESULTS

4.1 Introduction

This chapter presents the findings of the research work on emergency contraception use among female students of the Accra Technical University. Primary data was collected using questionnaires from 315 regular students of the Accra Technical University. The results have been discussed based on the study's objectives. The findings are in Tables with their related interpretations. The presentation of findings begins with the socio-demographic characteristics of respondents.

4.2 Socio-demographic characteristics

The socio-demographic characteristics of the survey respondents are presented in table below. The mean age of the respondents in the study was 22.56 years ± 2.97 with a range of 17 to 35 years. The age distribution was skewed to the right with 65.08% of the respondents between 20 -24 years of age. With reference to where students lived, 63.17% live off campus while the

rest lived on campus 36.83%. With reference to marital status, majority of students 87.3% were single.

In terms of year groups as shown in Table 4.2.1 the largest group of respondents were in third year (38.73%) whilst the smallest group were in first year (25.08%). From the various faculties, Faculty of Business was the largest (47.3%), the faculty of Built environment had (3.81%) of respondents. On religious affiliation, Christians constitute the highest number of respondents (83.17%) followed by Muslims (12.7%) the remaining were Traditionalists and other religions (4.13%). For Ethnicity, majority of students (33.33%) were Akans and the smallest number were Northerners (7.3%).

Table 4.2.1: Socio-demographic characteristics

Variable	Frequency	Percentage (%)
Age of Respondents in years		
17-19	39	12.38
20-24	204	65.08
25-29	65	20.63
30-35	6	1.9
Marital status		
Single	275	87.3
Married	40	12.7
Place of stay		
On campus	116	36.83
Off campus	199	63.17
Religious Affiliation		
Christianity	262	83.17
Islam	40	12.7
Traditional Religion	9	2.86
Others	4	1.27
Level		
First Year	79	25.08
Second year	114	36.19
Third Year	122	38.73
Faculty		
Faculty of Business	149	47.3

Faculty of Built Environment	12	3.81
Faculty of Engineering	26	8.25
Faculty of Applied Science	84	26.67
Faculty of Applied Arts	44	13.97
Ethnicity		
Ga Dangme	82	26.03
Ewe	80	25.4
Akan	105	33.33
Northern	23	7.3
Others	25	7.94

4.3 Socio-economic status of respondents' Parents

On the parental employment statuses, majority 57.61% of the respondents had both of their parents gainfully employed, with 25.57% of the respondents had either mother or father employed whilst the remaining 16.83% had both parents not employed. Among the respondents, 58.92% were employed whilst 41.08% were not employed.

Table 4.3.1: Frequency distribution of socio-economic characteristics of respondents

Variable	Frequency	Percentage
Employment status of Parents		
Both Employed	178	57.61
One Employed	79	25.57
Both Unemployed	52	16.83
Employment status		
Yes	185	58.92

No	129	41.08

4.4 Knowledge of Emergency Contraceptive Use

To measure the level of knowledge, respondents were asked if they have heard of emergency contraception. According to the results, as shown in Table 4.4.1 out of the 315 respondents, 59.34% have ever heard of EC whilst the remaining 40.66% have never heard of EC .33.0% of respondents heard of it from friends, 21.8% heard of it from the internet, 18.4% heard of it from the radio, from health workers 5%, 4.5% heard of it from parents and 2.2% from lecturers.

Table 4.4.1: Knowledge of Emergency Contraceptive Use

Variable	Frequency	Percentage (%)
Have you heard of Emergency Contraceptive before		
Yes	59.34	181
No	40.66	124
Where did you hear of it		
Friends	59	33.0
Internet/Social Media	39	21.8
Radio	33	18.4
Partner	15	8.4
Others	12	6.7
Health worker	9	5.0
Parents	8	4.5
Lecturer	4	2.2

4.4.1 Actual Knowledge on Emergency Contraceptive Use

About 47.62% had low knowledge on emergency contraceptive use, 26.18% had no knowledge and 26.03% had high knowledge on emergency contraceptive use. This was based on the composite score of the respondents. From the data, 60.38% of respondents knew that EC cannot protect you from sexually transmitted diseases. Only 39.61% did not know that EC

can protect you from sexually transmitted diseases. On the duration of time for the effectiveness of EC, most of the respondents 64.22% did not know that EC is effective when taken within 72 hours of sex and 35.78% knew the correct time frame to take emergency contraceptive to be effective. Majority of the respondents 69.65% did not know EC should be used only once a month while 30.35% knew that EC should be taken only once a month. About 57.50% did not know that EC pills can fail while 42.49% knew that EC can fail. EC cannot be used as a regular form of family planning 72.20% of respondents did not know that. The use of EC and condoms are family planning methods 65.81% of respondents did not have that knowledge.

4.4.2 Perception of emergency contraceptive use

Majority 67.1% responded “no” to EC has significant side effects thus fear to use it while 32.91% responded “yes”. This means respondents do not fear to use Emergency contraceptives. Also, 69.87% responded “no” to EC promotes promiscuity hence increase the prevalence of HIV while 30.13% responded “yes”.

If I have unprotected sexual intercourse, I would use an emergency contraceptive, 44.09% stated “yes” and 55.91% stated “no” to this question. Emergency contraceptives are safe for its users most of the respondents 64.53% responded “no” while 35.46% said “yes”. I won’t use EC’s to prevent pregnancy because I value a lot of children more than half of respondents stated “no” while 30.03% stated “yes”.

4.5 Emergency Contraceptive use by respondents

Respondents were asked the last time they had sexual intercourse 14.45% said they had never had sex while 85.55% said they have had sex within the last six months. About 45% of the

respondents said they protect themselves during sexual intercourse, while 42.22% stated they do not. Out of those who had sexual intercourse majority 67.78% mentioned using Emergency contraceptive as what they used for protection while 32.22% stated they used non-emergency contraception method. The proportion of female students who had ever used an emergency contraceptive was 57.50%.

4.5.1 Side effects and cost of emergency contraceptives

Respondents were asked what information they were given the last time they bought an Emergency contraceptive pill 37.22% said they were told it could affect their menstruation, No information was given to 32.22%, 13.33% said they were told it could make them vomit whiles 10% said they were informed it will make them feel weak.

Majority 66.67% of the respondents who use EC pills confirmed they did have side effects upon using it while 28.33% said they did not experience any side effect. Twenty four percent of the respondents mentioned general weakness as the side effect they experienced, 21.67% experienced nausea or vomiting whilst 21.11% experienced bleeding.

Respondents were asked about the cost of a pack of an emergency contraceptive pill .Almost half of the respondents 40% spent between 5 and 10 cedis, 18.89% spent above 20 cedis, 16.11% spent between 11 and 15 cedis, 11.67% spent between 16 and 20 cedis while 10.56% spent less than 5 cedis.

4.5.2 Knowledge on reason for Using EC

Respondents were asked when they normally use EC pills, majority 56.73% mentioned that they use EC when they are in their ovulation time, 26.9% said anytime they had sexual

intercourse, 8.77% said they use it when they had sex against their wish while 7.6% said it was their regular family planning method.

4.5.3 Source of supply and recommendation of Emergency Contraceptive

When respondents were asked where they could obtain EC pills, majority 55.55% mentioned the pharmacy, 14.44% said their source was the family, 11.11% said their peers while 7.22% said their source of supply was their partners. Friends recommended emergency contraceptives to 32.78% of respondents, 27.22% mentioned partners while 20% heard emergency contraceptives from health professionals. About 7.22% also heard of emergency contraception from parents.

4.5.4 Intention to use emergency contraception

Among those who had not used EC before respondents were asked if they had any intention to use emergency contraception in future. About 51.88% said they might use in future while 48.12% responded that they will never use.

Table 4.5.5: Emergency Contraceptive Use among Respondents

Variable	Frequency	Percentage
When was the last time you had sexual intercourse		
Never	26	14.44
Less than 3 months	93	51.67
Between 3 and 6 months	26	14.44
More than 6 months	35	19.44
Do you normally protect yourself during sexual intercourse		
No	76	42.22
Yes	81	45
What contraceptive method to you use		
Emergency contraceptive method	122	67.78
Non-emergency contraceptive method	58	32.22
Where is your source of supply of EC		
Health Facility	21	11.67
Family	26	14.44

Peers	20	11.11
Partner	13	7.22
Pharmacy	100	55.55
Who recommended EC to you		
Friend	59	32.78
Partner	49	27.22
Health professional	36	20
Parents	13	7.22
Others	23	12.78
What information were you given the last time you bought EC		
No information	58	32.22
Pills would make me vomit	24	13.33
It can affect my menstruation	67	37.22
It can make me feel weak	18	10
Others	13	7.22
What side effect did you experience when you used EC pill		
Nausea or vomiting	39	21.67
General weakness	43	23.89
Bleeding or Menstruation	38	21.11
None	51	28.33
Others	9	5
How much do you spend on a pack of EC pill		
Less than 5 Cedis	19	10.56
5-10 Cedis	72	40
11-15 Cedis	29	16.11
16-20 Cedis	21	11.67
Above 20 Cedis	34	18.89
Don’t Know	5	2.78
When do you normally use EC pill		
Anytime I have sexual intercourse	46	26.9
When I have sexual in my ovulation time	97	56.73
It’s my regular FP method	13	7.6
When I have sexual against my wish	15	8.77
How many times did you use the EC pills in the last 6 months		
Once	58	32.22
Twice	53	29.44
Thrice	32	17.78
Four times	16	8.89
More than four times	21	11.67

4.6 Factors that Influence Choice of Emergency Contraception Use

The researcher was interested in finding out if alcohol intake played a role in influencing choice of emergency contraception by asking respondents to tick a 'yes' or a 'no'. 58.17% said "yes" whilst 41.83% said "no". This means that alcohol influenced their sexual behavior. Support from friends and family, affordability and availability of Emergency contraception will make it difficult or easy to access emergency contraception. About 67.73% responded that support from friends will make it easier to use and emergency contraceptive. Support from family will make it easier for 55.27% of respondents to use emergency contraception. Availability of emergency contraceptive will make it easier for 65.18% of respondents to use while 66.77% stated that affordability will make it easier to use emergency contraceptive.

4.7 Emergency Contraceptive Use and other variables

A Pearson chi-square test at 95% confidence interval was done to establish any relationship between emergency contraceptive use and other variables of respondents. Knowledge of EC (p<0.017), marital status (p<0.001), place of stay (p <0.001), religious affiliation (p<0.025), year (p<0.004), Ethnicity (p<0.069), Faculty (p<0.027), Employment status (p<0.03), EC cannot protect you from sexually transmitted disease (p<0.005),When was the last time you had sexual intercourse (p<0.005), Does alcohol influence you choice of EC (p<0.027), EC has significant side effects thus fear to use it (p<0.068), EC promotes promiscuity hence increase the prevalence of HIV(p<0.031) and Where you heard of Emergency contraceptive (p<0.017) were statistically associated with emergency contraceptive use. There were no association between age, Parents employment status, source of emergency supply and source of recommendation and emergency contraceptive use. Source of emergency contraceptive and source of recommendation is expected to influence a student's knowledge and use of

emergency contraceptive. However, this study found no association between source of supply and source of recommendation. Refer to Table 4.7.1.

Table 4.7.1: Association between Emergency Contraceptive Use and significant Variables

		Use of contraceptives				
	total	**Never**	**barely use**	**often use**		
Variable		**n (%)**	**n (%)**	**n (%)**	**chi-square**	**P-value**
Marital Status					18.2642	<0.001
Single	275	126(45.82)	114(41.45)	35(12.73)		
Married	40	7(17.50)	31(77.50)	2(5.00)		
Place of Stay					13.3356	<0.001
Off Campus	201	96(48,22)	76(38.19)	27(13.43)		
On Campus	114	37(31.90)	68(58.62)	10(8.77)		
Religious Affiliation					14.4541	0.025
Christianity	262	121(46.18)	110(41.98)	31(11.83)		
Islam	40	11(27.50)	26(65.00)	3(7.50)		
Traditional Religion	9	1(11.11)	6(66.67)	2(22.22)		
Others	4	0(0.00)	3(75.00)	1(25.00)		
Level					15.1969	<0.001
First year	79	25(31.65)	50(63.29)	4(5.06)		
Second year	114	50(43.86)	45(39.47)	19(16.67)		
Third year	122	58(47.54)	50(40.98)	14(11.48)		
Faculty					17.3441	0.027
Faculty of Business	149	70(46.98)	58(38.93)	21(14.09)		
Faculty of Built Environment	12	4(33.33)	7(58.33)	1(8.33)		
Faculty of Engineering	26	5(19.23)	18(69.23)	3(11.54)		
Faculty of Applied Science	84	32(38.10)	47(55.95)	5(5.95)		
Faculty of Applied Arts	44	22(50.00)	15(34.09)	7(15.91)		
Ethnicity					14.5466	0.069
Ga Dangme	82	25(30.49)	47(57.32)	10(12.20)		
Ewe	80	34(42.50)	36(45.00)	10(12.50)		
Akan	105	50(47.62)	43(40.95)	12(11.43)		
Northern	23	7(30.43)	13(56.52)	3(13.04)		
Others	25	17(68.00)	6(24.00)	2(8.00)		
Employment status					6.9291	0.031
Yes	185	87(47.03)	74(40.00)	24(12.97)		
No	129	45(34.88)	71(55.04)	13(10.08)		

Have you heard of emergency contraceptives before					8.1205	0.017
No	124	124(100.0)	0(0.00)	0(0.00)		
Yes	179	63(35.20)	92(51.40)	24(13.41)		
Where did you hear of this EC?					26.9366	<0.001
Radio	44	20(45.45)	21(47.73)	3(6.82)		
Internet or social media	90	49(54.44)	34(37.78)	7(7.78)		
Friends	86	22(25.58)	50(58.14)	14(16.28)		
Parents	10	3(30.00)	6(60.00)	1(10.0)		
Partner	18	5(27.78)	10(55.56)	3(16.67)		
Health worker	32	14(43.75)	14(43.75)	4(12.40)		
Lecturer	7	4(57.14)	1(14.29)	2(28.57)		
Other	22	14(63.64)	6(27.27)	2(9.09)		
EC cannot protect you from sexually transmitted diseases					10.0321	<0.001
Disagree	151	75(49.67)	61(40.40)	15(9.93)		
Neutral	38	18(47.37)	14(36.84)	6(15.79)		
Agree	124	40(32.26)	68(54.84)	16(12.90)		
Does alcohol influence your choice of EC use					7.236	0.027
Yes	147	73(49.66)	62(42.18)	12(8.16)		
No	166	60(36.14)	81(48.80)	25(15.06)		

4.8 Association between some independent variables and the Emergency contraceptive Use

The association between emergency contraceptive use and knowledge of EC, marital status, place of stay, religious affiliation, level, ethnicity, faculty, employment status, EC cannot protect you from sexually transmitted disease, When was the last time you had sexual intercourse, Does alcohol influence you choice of EC, EC has significant side effects thus fear to use it, EC promotes promiscuity hence increase the prevalence of HIV is indicated in table 4.9.1.Logistic regression was used to estimate the strength of the independent variables on the use of emergency contraceptive which is the outcome. The logistic regression model is done to test the level of significance and association between the dependent variable and the selected independent variable of interest.

4.9 Results of Logistic Regression

In the Bivariate analysis (Table 4.9.1) female students who were married were more likely to use EC than their single counterparts with p-value of (p<0.001). Students living off campus were also less likely to use EC than those on campus with a p-value of (p<0.006). Muslims, Traditionalists, and other religions were less likely to use EC than Christians at a p-value of (p<0.036, 0.07, 0.00) respectively. Third years were less likely to use EC than first years and second years at a p-value of 0.037. Students who are employed are less likely to use EC than those not employed at a p-value of 0.042. Respondents who reported having sex before were more likely to use EC than those who had never had sex with a p-value of 0.005.There was still a significant association between marital status with other variable and the dependent variable after multivariate analysis with adjusted Odds Ratio and 95% CI of (AOR=2.55, 95% CI 0.9-7.27) and the p-value (p<0.017). Place of stay also influences the use of Emergency Contraceptive with (AOR=0.52, 95% CI 0.28-0.99) and the p-value 0.046.

Table 4.9.1: Influence of some independent variables on emergency contraception use (Logistic Regression)

	Simple logistic		**Multiple logistic**	
Variable	**UOR (95% CI)**	**P-value**	**AOR (95% CI)**	**P-value**
Marital status				
married	4.04 (1.73, 9.45)	<0.001	2.55 (0.9, 7.27)	0.079
Place of Stay				
off campus	0.51 (0.31, 0.82)	0.006	0.52 (0.28, 0.99)	0.046
Religious Affiliation				
Islam	2.2 (1.05, 4.6)	0.036	0.88 (0.32, 2.36)	0.792
Traditional religion	6.91 (0.85, 56.07)	0.07	2.37 (0.24, 23.19)	0.459
Level				

second year	0.62 (0.34, 1.13)	0.115	0.71 (0.3, 1.71)	0.449
third year	0.53 (0.29, 0.96)	0.037	0.83 (0.36, 1.91)	0.656
Ethnicity				
Ewe	0.59 (0.31, 1.13)	0.113	0.6 (0.28, 1.3)	0.198
Akan	0.48 (0.26, 0.88)	0.018	0.53 (0.25, 1.11)	0.093
Northern	0.88 (0.32, 2.44)	0.802	0.63 (0.17, 2.4)	0.499
Others	0.21 (0.08, 0.54)	<0.001	0.21 (0.07, 0.66)	<0.001
Employment Status				
Yes	0.62 (0.39, 0.98)	0.042	0.71 (0.35, 1.47)	0.358
When was the last time you had sexual intercourse				
<3 months	8.5 (4.66, 15.47)	<0.001	6.59 (3.33, 13.02)	<0.001
3-6 months	8.44 (3.51, 20.34)	<0.001	5.2 (1.93, 14.03)	<0.001
>6 months	6.39 (3.05, 13.41)	<0.001	6.17 (2.75, 13.81)	<0.001
Does alcohol influence your choice of EC				
Yes	0.57 (0.36, 0.9)	0.016	1.23 (0.59, 2.54)	0.582
EC has significant side effects thus fear to use				
Neutral	1.12 (0.62, 2.01)	0.706	1.09 (0.5, 2.35)	0.83
Agree	2.13 (1.25, 3.61)	0.005	1.86 (0.79, 4.37)	0.152

Summary

In summary, the results indicate that the respondents largely do not have the adequate knowledge about emergency contraceptive use. Students who were married, staying on

campus ,in first and second year and have had sex before were more likely to use Emergency Contraceptives.

CHAPTER FIVE

DISCUSSION

5.1 Introduction

This chapter discusses the results of the study in relation to reviewed literature on the research topic. The results were discussed according to the study objectives and research questions. The study aimed to determine the use of emergency contraception among Accra Technical University female students, Accra and consequently establish the level of knowledge and perception of emergency contraceptive use and the factors influencing choice to use emergency contraceptive. This chapter is in four sections. Section one presents the discussions on the knowledge and perception of emergency contraceptive use. Section two presents the proportion of respondents who have ever used emergency contraceptive. Section three is about factors influencing choice to use emergency contraceptive. Section four is about the implications of the findings from this study on general contraceptive usage the female students on Accra Technical University.

5.2 Knowledge and Perception of Emergency Contraceptive Use

This study revealed that more than half 59.34% of the respondents had heard of emergency contraceptives. About 33.0% of the respondents heard of it from friends, 21.8% heard of it from the internet, 18.4% heard of it from the radio, from health workers 5%, 4.5% heard of it from parents and 2.2% from lecturers. This is lower than that of Takoradi Technical University were majority of the students (74.6%) sampled had prior knowledge of EC. A few of them heard of it through a formal lecture (Manortey et al., 2016). A study undertaken at the University of Ghana also revealed an overwhelming majority of the respondents (87.9%) stated they had knowledge on some ECs such as Postinor 2. The students had their information from different sources, (48.5%) said their source of information was from the media and (36.5%) stated their source as friends and relatives. The rest of the respondents (15%) got information from health professionals (Oseitutu, Aryeh-adjei, & Ampadu, 2018). On the contrary, the findings at Accra Technical University (59.34%) is higher than a study among female university students in Uganda which indicated that (45.1%) knew about emergency contraceptive pills and friends, media and school were their sources of information (Kunene, 2013).

To find out if the students had enough knowledge on emergency contraceptive a question on the duration of time for the effectiveness of EC was asked most of the respondents 64.22% responded “no” to the question EC is effective when taken within 72 hours of sex and 35.78% responded “yes” which means most of them did not know the accurate duration in which emergency contraceptive is taken to be effective. The study at Takoradi Technical University stated that (59.3%) of those who had prior knowledge knew the correct period for taking ECPs, however quite a substantial number (40.7%) did not know the time that it should be

taken (Manortey et al., 2016). The efficacy of the EC method requires correct timing of use. The longer one delays after unprotected sex taking emergency contraceptive, the greater the probability of unwanted pregnancy. It was obvious in this research that understanding of correct or wrong timing was low for EC use.

In this study even though majority of the respondents had heard of emergency contraceptives, they had a low level of knowledge. EC knowledge is very critical in the quest to avoid unwanted pregnancies among students because it could negatively affect their academic work . Another major problem is the lack of knowledge about how ECPs are to be used. This may be the issue of providers failing to provide appropriate ECP details when dispensing. Students were also informed of the existence of emergency contraception emergency pills from various sources of information. Media-created awareness may not be sufficiently thorough to include understanding of adequate method use, content, and efficacy. This low level of knowledge may be due to the lack of a Careers and Counseling Center that enhances students' reproductive health programs and helps to incorporate these concerns into fresh student orientation programs. Unwanted pregnancies have become a problem for many students, and school authorities need to provide students with the needed information on EC use.

For perception of emergency contraceptive use, majority 67.1% responded "no" to EC has significant side effects thus fear to use it while 32.91% responded 'yes' hence respondents did not fear to use Emergency contraceptives. The research at the University of Ghana disclosed that students had the understanding and appreciated the significance of ECs, but most believed they preferred not to use ECs because they abstained or feared their side effects. 7% of the students in Uganda also feared to use EC because of the side effects. Majority of the respondents did not fear about the side effects of EC because of the inadequate knowledge on

the use of Emergency Contraception and a higher number of them did not experience any side effect.

5.3 Proportion of students who used emergency contraception

The study showed that about (45%) of the respondents do protect themselves during or after sexual intercourse. This may be because of the higher level of education among respondents in this current study since they are tertiary students. The respondents might have researched to know the importance of contraception.

Among those who used a contraceptive method, 67.78% of these respondents used emergency contraceptives. The proportion of female students who had ever used an emergency contraceptive was 57.50% this is higher compared to the study conducted in Takoradi Polytechnic and University of Ghana where 28.4% and 29.6% respectively of respondents had ever used an emergency contraceptive (Manortey et al., 2016). That is, majority (87.9%) of the respondents stated that they had ever used an emergency contraceptive. The rate of use is also lower in Accra Technical University compared to a study in Ethiopia where 82.97% of students used emergency contraceptives (Yemaneh et al., 2018). The rate of use was low in University of Ghana because most students were aware of ECs and had the knowledge but had never used any because they abstained (Oseitutu et al., 2018).

The use of emergency contraceptive was high at the Accra Technical University because a higher number of respondents were sexually active (85.55%).

Also, there was no in-depth appreciation of the study participants about their purpose for emergencies since they had a low level of knowledge. From the analysis, friends were the major source of information and access to information is influential to the use of EC hence

this could contribute to the high level of EC use. Also, most of the students who lived on campus used emergency contraceptive more because getting access to EC pills will be easier through their friends and mostly engage in sexual intercourse since they are living on their own with no parental guidance. Those who experienced no side effects of the EC pills were the majority hence this won't hinder them from using Emergency Contraceptive Pills. This is of concern to public health because studies have shown that if ECP is used several times, the danger of unwanted pregnancy rises.

5.4 Factors Informing Choice of Emergency Contraception Use

From the analysis, 58.17% of respondents stated that alcohol intake by the individual influenced their decision to use emergency contraception. Alcohol influences one's sexual behavior so after engaging in sexual intercourse one might take an emergency contraceptive to avoid any unwanted pregnancy. Support from partners, friends and family would also influence one's decision to use emergency contraception this was reported by 67.73% of respodents. When a female gets some information on EC from a relative, friends or partner it will be easier for them to accept and use EC. About 65.18% of respondents stated that if EC are more available to them it would influence their choice of using it because it is an over the counter medicine that can be bought without a prescription from the pharmacies.

About 66.77% also stated that affordability also makes a female able to get access to emergency contraception easily as she can buy anytime, she wants. To improve emergency contraception knowledge and use it was suggested that health employees should tackle attitudinal factors including side effects fears and high fertility choices in relation to availability and accessibility to family planning centers (Teye, 2017) .

Knowledge of EC, marital status, place of stay, religious affiliation, level, ethnicity, faculty, employment status, being sexually active and alcohol intake were significantly associated with the use of emergency contraceptives. A study on the socio-demographic factors on the usage of modern contraceptive by females in Ghana's Asuogyaman district disclosed that, while about 97% of the survey participants had knowledge of not less than one modern contraceptive method, only 16% of them used modern contraceptives (Teye, 2017) . It also showed that in the research area, the level of education, place of residence, and status of job considerably influenced modern contraceptive use among females. According to DHS (2014), contraceptive use is associated with formal education, increased wealth and unmarried partnership, whiles Muslims women are not likely to use contraceptives than the female Christians. A survey conducted in Nkwanta also revealed that, less female elites, beliefs be it social or cultural and communication among couples also played a critical part in the modern family planning usage (Eliason, Awoonor-Williams, Eliason, Novignon, Nonvignon, et al., 2014).

5.5 Chapter summary

The study has revealed that in-depth knowledge on EC is low, but the usage is high among female students at the Accra Technical University. The study has documented that knowledge and perception of EC are affected by a range of socio demographic characteristics and socio-economic status of the female which includes marital status, place of stay, level, employment status. Due to the high rate of sexual activity reported, the researcher calls for the school authorities to take some crucial measures such as the provision of information education communication and continuous guidance and counselling services especially during the first-year orientation and the introduction of family planning services to students. It is important

that campus health employees well educate the females that emergency contraceptives be used only when necessary, but not as a regular family planning technique through individual counseling when female students visit the clinic.

CHAPTER SIX

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the summary, conclusions and recommendations of the study. The study sought to investigate the level of knowledge of emergency contraception use among female students at the Accra Technical University. The objectives were to assess the knowledge and perception about use of emergency oral contraceptive among females, to assess factors that influences a female's choice of an emergency contraceptives and to determine the level of emergency contraceptive use among the female students at the Accra Technical University.

6.1 Summary of the study

The study was set to investigate the knowledge of emergency contraception use among female students at the Accra Technical University, Accra. This was achieved by using quantitative research method to collect data. The data was analyzed using StataIC 15 Version. Inferential statistics using Chi square and logistic regression analysis were used to assess the association between the independent variables and the use of Emergency contraceptives. The key conclusions presented as follows:

6.2 Conclusions of the Study

Findings from the study indicated that more than half the female students of Accra Technical University had heard of emergency contraception. The source of their information mostly was from their friends and the media. Regarding respondent's knowledge on emergency contraception, the findings showed that majority of them had low knowledge. Majority of them did not know the accurate duration to take emergency contraceptive to be effective and think that EC is a regular form of a family planning method. The female students do not also know that EC pills can fail. Also, most of the respondents did not fear about the perception

that EC had significant side effects. Additionally, the study found that a high percentage were of the view that EC does not promote promiscuity hence does not increase the prevalence of HIV. It could therefore be concluded that even though they had heard of it, users did not understand appropriately when EC taken and the purpose of emergency contraception.

The findings further revealed that higher proportion of the student population have ever used or are still using emergency contraception. Majority of those who had used EC got their source of supply from the pharmacies and others from their families, peers, and partners. Friends, partners and health professionals recommended the use Emergency Contraception to respondents. Availability, affordability and support from family and friends according to the respondents makes the use EC easy and accessible.

6.3 Recommendations

Based on the findings of this study, policy makers and healthcare professionals may consider the following suggestions.

1. It is important for health care agencies and family planning advocates to target the involvement of tertiary students in family planning education and sensitization programs. This will enable students to have a better understanding, so it is not mistaken for a regular family planning method. There is the need for service providers either at the facilities or pharmacies to provide adequate information about EC to the students such as the correct timing and side effects in order to make it effective.

2. There is also a need for collaboration between the Ministry of Health and the Ministry of Education in order to intensify reproductive health education by implementing a health policy through which health practitioners can provide counseling to students. This will boast the

confidence of students in relying on health professionals for information rather than relying on colleagues for wrong or inadequate information.

Limitation of the study

Because of the very sensitive nature of the study, some of the respondents who did not want to answer some of the questions, and thereafter, gave back unfinished and unanswered questionnaire. Due to this, expected responses for emergency contraception use might have been affected.

Limitation to the study

This study has highlighted important findings, but its limitation was that it was mainly quantitative in nature. A similar research involving both quantitative and qualitative design should be done.

A cross-sectional design was used in the study and therefore findings in this study cannot be used to explain behavior among the respondents over time. Past or future relationships may not be generalized from this study. As the sampling frame included only female students among Accra Technical University, the results may not be generalizable to all tertiary students, the generalizability may be further limited because survey response was voluntary.

REFERENCES

Adjei, D., Adjei, D., Sarfo, J. O., Asiedu, M., & Sarfo, I. A. (2014). Psychosocial factors affecting contrcaeptive usage: A case of unmet needs in Ghana. *European Scientific Journal, ESJ*, *10*(15).

Amalba, A., Mogre, V., Appiah, M. N. A., & Mumuni, W. A. (2014). Awareness, use and associated factors of emergency contraceptive pills among women of reproductive age (15-49 years) in Tamale, Ghana. *BMC Women's Health*.

Ass, T., Univer, J., & Sc, B. (2010). Predictors of emergency contraceptive use among Regular Female Students at Adama University , Central Ethiopia, 1–19.

Blackstone, S. R., Nwaozuru, U., & Iwelunmor, J. (2017). Factors Influencing Contraceptive Use in Sub-Saharan Africa: A Systematic Review. *International Quarterly of Community Health Education*, *37*(2), 79–91.

Eliason, S., Awoonor-Williams, J. K., Eliason, C., Novignon, J., & Aikins, M. (2014). *Determinants of modern family planning use among women of reproductive age in the Nkwanta district of Ghana: a case-control study*.

Eliason, S., Awoonor-Williams, J. K., Eliason, C., Novignon, J., Nonvignon, J., & Aikins, M. (2014). Determinants of modern family planning use among women of reproductive age in the Nkwanta district of Ghana: a case–control study. *Reproductive Health*, *11*(1), 65.

Eliason, S., Baiden, F., Yankey, B. A., & Awusabo-Asare, K. (2014). Determinants of unintended pregnancies in rural Ghana. *BMC Pregnancy and Childbirth*.

Grindlay, K., Dako-Gyeke, P., Ngo, T. D., Eva, G., Gobah, L., Reiger, S. T., … Blanchard, K.

(2018). Contraceptive use and unintended pregnancy among young women and men in Accra, Ghana. *PloS One*, *13*(8), e0201663.

Haeger, K. O., Lamme, J., & Cleland, K. (2018). State of emergency contraception in the U.S., 2018. *Contraception and Reproductive Medicine*, *3*, 20.

Koyama, A., Hagopian, L., & Linden, J. (2013). Emerging options for emergency contraception. *Clinical Medicine Insights. Reproductive Health*, *7*, 23–35.

Kunene, H. S. (2013). *Factors Influencing Emergency Contraceptive Use: Perspectives of Students in Durban, South Africa*.

Larsson, C., & Stanfors, M. (2014). Women ' s Education , Empowerment , and Contraceptive Use in s ub- Saharan Africa : Findings from Recent Demographic and Health Surveys, *28*(2), 1022–1034.

Manortey, S., Duah, W., & Baiden, F. (2016). Factors Associated with the Use of Emergency Contraceptive Pills among Students of the Takoradi Polytechnic in Ghana. *Journal of Scientific Research and Reports*, *12*(3), 1–10.

Mayhew, S., Osei, I., & Bajos, N. (2013). Attitudes des professionnels de santé à l'égard de la contraception d'urgence au Ghana et au Burkina Faso. *Population*, *68*(1), 123.

Morgan, G., Keesbury, J., & Speizer, I. (2014). Emergency contraceptive knowledge and use among urban women in Nigeria and Kenya. *Studies in Family Planning*, *45*(1), 59–72.

Oseitutu, E., Aryeh-adjei, A. A., & Ampadu, E. (2018). Awareness and Usage of Emergency Contraceptives (EC) Among University Students : The Case of Ghana. *Journal of Gynecology and Womens Health*, *10*(3).

Palermo, T., Bleck, J., & Westley, E. (2014). Knowledge and Use of Emergency Contraception: A Multicountry Analysis. *International Perspectives on Sexual and Reproductive Health*, *40*(02), 079–086.

Ross, J., & Hardee, K. (2013). Access to contraceptive methods and prevalence of use. *Journal of Biosocial Science*, *45*(6), 761–778.

Sedgh, G., Singh, S., & Hussain, R. (2014a). Intended and unintended pregnancies worldwide in 2012 and recent trends. *Studies in Family Planning*, *45*(3), 301–314.

Sedgh, G., Singh, S., & Hussain, R. (2014b). Intended and unintended pregnancies worldwide in 2012 and recent trends. *Studies in Family Planning*. https://doi.org/10.1111/j.1728-4465.2014.00393.x

Somba, M. J., Mbonile, M., Obure, J., & Mahande, M. J. (2014). Sexual behaviour, contraceptive knowledge and use among female undergraduates' students of Muhimbili and Dar es Salaam Universities, Tanzania: a cross-sectional study. *BMC Women's Health*, *14*(1), 94.

Teye, J. K. (2017). Modern Contraceptive Use among Women in the Asuogyaman District of Ghana: Is Reliability more Important than Health Concerns? *African Journal of Reproductive Health*, *17*(2).

Tsui, A. O., Brown, W., & Li, Q. (2017). Contraceptive Practice in Sub-Saharan Africa. *Population and Development Review*, *43*(Suppl Suppl 1), 166–191.

Union, E., Consortium, E., & Contraception, E. (2014). Access to emergency contraception in the European Union countries, (October), 1–8.

Westley, E., & Schwarz, E. B. (2012). Emergency contraception: global challenges, new opportunities. *Contraception*, *85*(5), 429–431.

Yemaneh, Y., Sayih, A., Niguse, W., Lema, M., & Tsegaye, A. (2018). Emergency oral contraceptive use among undergraduate female students of mizan-tepi University , mizan campus south nations nationalities and peoples regional state south west , Ethiopia 2016, (September).

APPENDICES

APPENDIX A: PARTICIPANT INFORMATION SHEET

TITLE OF STUDY**:** EMERGENCY CONTRACEPTIVE USE AMONG FEMALE STUDENTS AT THE ACCRA TECHNICAL UNIVERSITY.

Introduction

I am Emmanuella Baah-Nyarkoh, a graduate student from the School of public health, University of Ghana, Legon in Accra. I am carrying out a research on the use of emergency contraceptive in Accra Technical University as partial fulfillment of the requirement for a master's degree in Public Health. You can reach me through the mobile number, 0548774817 and email ellabaah2090@gmail.com.

Background of the research

The purpose of the research is to assess the knowledge and perception about the use of emergency contraceptive among females, assess factors that informs a female's choice of an emergency contraceptive and to determine the level of emergency contraceptive use. The research will add to knowledge and inform policy about emergency contraceptive and propose some interventions if needs be.

We therefore humbly request that you voluntarily participate in this study because your views and responses will be much appreciated since this will help us determine the use of emergency contraceptive in Accra Technical University.

Nature of Study

The goal of this study is to help determine the use of emergency contraceptives among females at the Accra Technical University. The study will involve answering questions from a structured questionnaire about Emergency Contraceptive Use. It will involve about 350 female students at the Accra Technical University. You will be guided to provide responses to questions from a questionnaire. We assure you that whatever responses provided will be kept strictly confidential and will not be disclosed to anyone. Your name will not be attached to any of the answers you provide

Duration

The questionnaire will entail providing some personal details and socio-demographic factors as well as knowledge and perception of emergency contraceptive use to answer some few questions by ticking your choices from a range of possible responses. It is expected to last for not more than 15 minutes.

Possible Benefits

Participation is purely voluntary and there is a material compensation for the participants. There is also no penalty if you decide not to participate. We, however, hope that you will take part in this research as your views are very important to providing us with information to help us add to knowledge and inform policy about emergency contraceptive.

Possible Risks and Discomforts

This research entails only answering of questions and we do not anticipate any harm to the participant apart from your time that will be spent in answering the questionnaire. However,

there may be a feeling of discomfort in answering certain questions due to its sensitive nature. You are free to skip any question you feel uncomfortable to provide an answer or those you think you may not be able to respond.

Cost

There will be no personal cost incurred by the participant in this research except for your time to respond to questions should you agree to participate in the study.

Compensation

There will be a material compensation for participants for your time to participate in this study.

Confidentiality

Your information will be kept confidential. Your information will be anonymous, and no one will be able to determine how you responded to the questions. Your names will not be attached to your responses, but identification codes will be given only for the purpose of this research. Data analysis will be done at an aggregate level to ensure anonymity. Your name or identification will not be published in any report. Only members of the research team (principal researcher and research supervisors) may sometimes review the research records, but no unauthorized individual(s) will be able to have access to information provided.

Voluntary Participation or Withdrawal

Your participation in this study is voluntary. If you decide to participate in this research, you are not obliged to answer all the questions if you find some too sensitive to answer. And during the interview, you are at liberty to withdraw from the study or stop the interview at any time without any penalty.

Feedback to participant

At the end of the analysis and study, a feedback will be provided to participants through the Registry of the Accra Technical University.

Funding Information

This research is self-sponsored with no external funding from any donor.

Sharing Participants information/ Data

The data collected will be used solely for academic purpose. It will not be shared with any organization or individuals.

Storage of Samples

Data generated from this study will be solely owned by the principal investigator and will not be shared with other organization or individual.

Provision of information and consent for participants

If you voluntarily agree to take part in this research, you will be required to sign the information sheet and consent form, one to be kept by the you and one by the research assistant for future reference.

Contact for Additional Information

This research has been reviewed and approved by the Ghana Health Service Ethic Review Committee. For questions and enquires about this study, you may contact the principal investigator or her supervisor through the following addresses:

1. Emmanuella Baah-Nyarkoh (Principal Investigator)

School of Public Health, University of Ghana, Legon

Email: ellabaah2090@gmail.com.

Tel: 0548774817

2. Prof. Philip Adongo (Supervisor)

School of Public Health, University of Ghana,Legon

Email :pbadongo@ug.edu.gh

If you have any question(s) or further clarification concerning this study and/or on ethical issues and rights as participants , please do not hesitate to contact ;

Ms.Hannah Frimpong,

Administrator

Ghana Health Service Ethical Review Committee Secretariat, Accra

Tel:(+233) 50 704 1223 /243235225

Email:Hannah.Frimpong@gmail.org

CONSENT FORM

TITLE OF STUDY: EMERGENCY CONTRACEPTIVE USE AMONG FEMALE STUDENTS AT THE ACCRA TECHNICAL UNIVERSITY.

PARTICIPANTS' STATEMENT

I acknowledge that I have read or have had the purpose and contents of the Participants' Information Sheet read and 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 or withdraw from the research even after I have signed this form.

I voluntarily agree to be part of this research.

Name or Initials of Participant…….. ID Code ……..

Participants' Signature …… Mark (Please specify)…….

Date:…….

INVESTIGATOR STATEMENT AND SIGNATURE

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…….

APPENDIX B

QUESTIONNAIRE

THE USE OF EMERGENCY CONTRACEPTIVES AMONG FEMALE STUDENTS AT THE ACCRA TECHNICAL UNIVERSITY.

SECTION A :SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENT
(Kindly circle one correct answer or write your answer in the blank provided)

1) How old are you? (Age in completed years)	……
2) Current marital status	A) Single B) Married
3) Where are you currently living?	A)On campus (hostel) B) Off campus
4) What is your religious affiliation?	A) Christian B) Muslim C) Traditional Religion D) Others (Specify)
5) Which year are you in?	A) First year B) Second year C) Third year
6) Which faculty are you in?	A)Faculty of Business, B)Faculty of Built Environment, C)Faculty of Engineering, D)Faculty of Applied Science E) Faculty of Applied Arts. ……..
7) Ethnicity	A) Ga/Dangme B) Ewe C) Akan D) Northern E) Others
8) Employment status of parents.	A) Both employed B) One employed C) Both unemployed
9) Are you employed?	A) Yes B) No
10) Have you heard of Emergency Contraceptives before? If No skip to question 12	A)Yes B) No
11) Where did you hear of this EC?	A) Radio B) Internet/social media C) Friends D) Parents E) Partner F) Health

	worker G) Lecturer H) Others (Specify)……..

KNOWLEDGE OF EMERGENCY CONTRACEPTION

For each of the following questions, please check the box closest to your opinion.	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
12) Emergency contraceptives cannot protect you from sexually transmitted infections.					
13) Emergency contraceptive is effective when taken within 72 hours of sexual intercourse.					
14) Emergency contraceptives should be used only once every month.					
15) Emergency contraceptive pills can fail.					
16) Emergency contraception cannot be used as a regular form of Family Planning taken after unprotected sex.					
17) The use of condoms and emergency contraceptives are family planning methods.					

USE OF EMERGENCY CONTRACEPTIVES	
18) When was the last time you had sexual intercourse?	A)Never B)Less than 3 months C)Between 3 and 6 months D)More than 6 months.
19) Do you normally protect yourself during sexual intercourse?	A) Yes B) No C)Not Applicable
20) What contraceptive method do you use?	A) Emergency Contraception pill (postinor-2) B) Non-Emergency Contraception method
21) How many times did you use emergency contraceptive Pills (Postinor-2) in the last six months?	A) Once B)Twice C)Thrice D)Four times E)More than four times F)None
22) Where is your source of supply of EC from?	A)Health facility B) Family C)Peers D) Partner E)Pharmacy F)Not applicable

23) Who recommended emergency contraception to you?	A)A friend B)Partner C)Health professional D)Parents E) Others (Specify)
24) What information were you given the last time you bought emergency contraceptive pills (Postinor-2)?	A)No information B)Pills would make me vomit/feels nauseous C)It can affect my period/menses D)It can make me feel weak/dizziness E)Others (Specify)
25) Which side-effect did you experience when you used emergency contraceptive pill (postinor2)?	A)Nausea/Vomiting B)General Weakness/Dizziness C)Bleeding/Period not Stopping D) None E) Others (Specify)…….
26) How much do you usually spend on a pack of emergency contraceptive pills (Postinor2)?	A)Less than 5 cedis B)5-10cedis C)11-15cedis D)16-20 cedis E)Above 20 cedis E)Don't know
27) How many of your friends are currently using emergency contraceptive pills (e.g. Postinor-2)?	A)None B)One C)Two D)Three E) Four F)Five

CIRCUMSTANCES SURROUNDING CHOICE OF EMERGENCY CONTRACEPTION

28) When do you normally use emergency contraception pill (Postinor -2)? If No, skip to 27	A) Anytime I have sexual intercourse B) When I have sexual intercourse during my ovulation time/'danger' time. C) It's my regular family planning method D) When I have sexual intercourse against my wish
29) If No, do you intend to use EC in the future?	A) Yes B) No
30) Does alcohol influence your choice of Emergency Contraceptive use?	A) Yes B) No
31) Support from friends will make it easier for you to use an emergency contraceptive.	A) Yes B) No
32) Support from family will make it easier for you to use an emergency contraceptive.	A)Yes B)No
33) Affordability of Emergency contraceptive pills makes it easy to use	A)Yes B)No

34) Availability of Emergency contraceptive pills makes it easy to use.	A)Yes B)No

PERCEPTION OF EMERGENCY CONTRACEPTIVE USE

35)Please tick your opinion using the scale indicated SA: Strongly agree, A: Agree, N: Neutral, D: Disgrace and SD: Strongly disagree

	CODE	1	2	3	4	5
	OPINION	SA	A	N	D	SD
EC has significant side effects thus fear to use it						
ECs promotes promiscuity hence increase the prevalence of HIV/AIDS and other STIs						
If I have unprotected sexual intercourse, I would use an emergency contraceptive and recommend to a friend.						
ECs are safe for its users						
I won't use ECs to prevent pregnancy because I value a lot of children						

ACCRA TECHNICAL UNIVERSITY

P. O. Box GP 561, Accra Ghana. Tel: (+233) 302 689276
Website: www.atu.edu.gh E-mail: registrar@atu.edu.gh

OFFICE OF THE REGISTRAR

Our Ref: ATU/G.IL.2/19/Vol.1

Your Ref:

Date: 17th January 2019

School Of Public Health.
University of Ghana
P. O. Box LG 13 Legon
Accra, Ghana

Dear Sir/Madam,

TO WHOM IT MAY CONCERN

INTRODUCTORY LETTER

This is to confirm that **MS. EMMANUELLA BAAH-NYARKO** is a student at the University of Ghana pursuing Master of Public Health (MPH Weekend) programme.

Approval has been given by Management for her to collect data from female students to enable her complete her project work on the topic: **"EMERGENCY ORAL CONTRACEPTIVE USE AMONG FEMALE STUDENTS".**

Please your kind consideration is anticipated.

Thank you

Yours faithfully,

DANIEL LARBI
(Ag. Dir. Gen. Services)
For: Ag. Registrar

Cc: Ag. Vice Chancellor
File

GHANA HEALTH SERVICE ETHICS REVIEW COMMITTEE

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

MyRef. GHS/RDD/ERC/Admin/App/19/338
Your Ref. No.

Research & Development Division
Ghana Health Service
P. O. Box MB 190
Accra
GPS Address: GA-050-3303
Tel: +233-302-681109
Fax + 233-302-685424
Email: ghserc@gmail.com
20th June, 2019

Emmanuella Baah-Nyarko
University of Ghana
School of Public Health
Legon

GHS-ERC Number	**GHS-ERC022/03/19**
Project Title	Emergency contraceptive use among female students at the Accra Technical University
Approval Date	20th June,2019
Expiry Date	19th June, 2020
GHS-ERC Decision	**Approved**

This approval requires the following from the Principal Investigator

- Submission of 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.
- 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.....

DR. CYNTHIA BANNERMAN
(GHS-ERCCHAIRPERSON)

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

GHANA HEALTH SERVICE ETHICS REVIEW COMMITTEE