

**Addis Ababa University College of Education and
Behavioral Studies**

**Department of Curriculum and Teachers Professional
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(Adult and Lifelong Learning)

**Practices and Challenges of Utilizing Emergency Contraceptive;
The Case of First Year Female Undergraduate Regular Students of
Addis Ababa University**

By

Eden Amdebrhan

Advisor Dessu Wirtu(PhD)

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**Addis Abeba University, College of Education and
Behavioral Studies**

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The Case of First Year Female Undergraduate Regular Students of
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By Eden Amaebrhan

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ABSTRACT

The purpose of this research was to investigate the practice and challenges of utilizing emergency contraceptive (EC) by first year regular female students OF Addis Abeba university. To this end, descriptive survey design methods were employed. Sources of data were first year female regular students from two colleges, nurses and pharmacist of AAU clinical from the main campus. Data collection tools were questionnaire, semi: structured interview and document analysis.

The data analysis led to the following major findings; Out of the total 90 female first year of AAU students 67(74.4%) of them ever had sexual intercourse at age 16-23 . Out of 40(44.4%) of the whole respondents who had ever heard about, 40% knew at least one correct method of EC while only 25% correctly identified 72 hours as the time limit for the method use. The key informants' interview among health care providers also ascertained lack of adequate knowledge and experience on EC regimens.

There is lack of adequate knowledge of EC among both female and the service Providers. Therefore, there is a need to address first year students by expanding information and education about EC methods and to build providers capacity through trainings.

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First year business and economics students when discuss about EC35

ACRONYMS AND ABBREVIATIONS

AAU = Addis Ababa University

AIDS = Acquired Immune Deficiency Syndrome

CSA = Central Statistics Agency

DKT = Dhandra Kertine teharter

EC = Emergency Contraception

ECPs = Emergency Contraceptive Pills

ECs = Emergency contraceptives

EDHS = Ethiopian Demographic and Health Survey

ESOG = Ethiopian Society of Obstetric Gynecologists

FDRE = Federal Democratic Republic of Ethiopia

FGAE = Family Guidance Association of Ethiopia

FGD = Focus Group Discussion

FP = Family Planning

HIV = Human Immuno Virus

KAP = Knowledge, Attitude and Practice

ICEC = International Consortium for Emergency Contraception

ICPD = International Conference of Population and Development

IPS = Institute of Population Studies

IWHC = International Women's Health Coalition

IUD = Intra Uterine Device

MCH = Maternal and Child Health

NGOs = Non – Governmental Organizations

PRB = Population Reference Bureau

RH= Reproductive Health

SPSS = Statistical Package for Social Sciences

STIs = Sexually Transmitted Infections

UN = United Nations

UNFPA = United Nations Population Fund

WHO = World Health Organization

CHAPTER ONE

1. THE PROBLEM AND ITS APPROACH

1.1. Introduction

Emergency contraception (EC) is any method of contraception which is used after intercourse and before the potential time of implantation. Since it is difficult to determine the infertile time of the cycle with certainty, EC better be provided to any woman who is concerned about her risk of pregnancy regardless of the cycle day of exposure.

In 1995, worldwide, women experienced over 300 million unwanted pregnancies resulting in over 700,000 (of them) deaths because of pregnancy related cases. World Health Organization (WHO) estimated that 84 million unwanted pregnancies occur annually worldwide. A worldwide study conducted by the WHO to assess the reproductive needs of the population found unexpected discrepancy between the young people's familiarity with modern contraception and on the other hand the high levels of unwanted pregnancy and unsafe abortion experienced. Millions of women who could benefit from emergency contraception have never heard of it.

Unintended pregnancy poses a major challenge to the reproductive health of young adults in developed countries. About 3 million unwanted pregnancies occur in the United States. Most of these results are from nonuse of contraception or from noticeable contraceptive failure, (such as broken condom) which could be prevented with the use of EC (Mabatho2000).

In several African countries, survey among University students showed that only three quarter of youth had heard about EC, and minimal accurate knowledge about its use (Mabatho2000).

Unsafe abortion is a major medical and public health problem in Ethiopia. Ethiopia has a high incidence of unwanted pregnancies and unsafe abortions, particularly among adolescents. Teen age girls are particularly prone to unintended pregnancies as studies revealed that a relatively high percentage (16.3%) of teenage women were already pregnant or have given birth previously. Unsafe abortion is one of the top causes incriminated in the high number of maternal morbidity and mortality in Ethiopia.(Kebede 2004)

Emergency Contraception (EC) was first introduced to the Ethiopian public in 1997, when the National Reproductive Health Assessment acknowledged the role that it could play in reducing unwanted pregnancy, maternal morbidity, and the need for unsafe abortion. When used properly EC can be extremely effective at preventing unwanted pregnancy and unsafe abortion. This has major implications in a country where a woman has a 1 in 40 chance of dying of maternal causes⁶ and the annual abortion rate is 23 per 1,000 women age 15-44, of which approximately half have been conducted in an unsafe manner (DKT 2011).

A 2005 Ministry of Health (MOH) study saw the launch of Postinor-2, a two-pill dose of levonorgestrel tablets, available in government health facilities with a doctor's prescription. This study found that 71 percent of EC users were unmarried women between the ages of 20 and 29, with 47 percent between the ages 20 and 24. Seventy-two percent of clients felt EC should be available over the counter (OTC). At the time the MOH was completing its study, DKT was introducing Postpill, 1.5 mg 2 pill package of levonorgestrel EC, available OTC at pharmacies and private clinics.

This study was particularly emphasis first year regular female students to assess the practice and challenges of utilizing emergency contraceptive methods. Thus, helped to understanding of practice and challenge of EC is critical for countries like Ethiopia with a population policy aiming at reducing unwanted pregnancy. Unfortunately little research has been conducted in this area in the country. This study showed the scope of the problem in the study area and information gathered from this study was provide baseline data to assist policy makers in developing appropriate evidence-based strategies to promote the use of emergency contraceptive pills in Ethiopia.

1.2. Statement of the problem

Meeting the need of youth today is critical for a wide range of policies and programs, because the actions of young people will shape the size, health, and prosperity of the world's future population. Moreover, improving young people's health is a critical goal in and of itself, with long- term benefits to society as a whole (PRB, 2000).

According to Negussie and et al, 1999, there are more young people on earth than ever before. Young people aged 15-24 years constitute about 20 percent of sub-Saharan Africa's population and will, therefore, have a substantial impact on future population growth, make an understanding of the patterns of sexual behavior of young men and women a significant issue for research and policy. In Ethiopia also young people aged 10-24 account 32 percent of the total population (PRB, 2000).

Overall, young people's health and educational prospects are improving, and marriage and childbearing are occurring at later, more mature stages of life, compared with previous generations. Nevertheless, of some concerns remaining, complications of pregnancy, child birth, and unsafe abortions because of unwanted pregnancies are still the major causes of death for women aged 15 to 25 (Negussie et al, 1999 &PRB, 2000).

Unplanned pregnancies are the result of various factors, including lack of knowledge about menstruation and pregnancy, lack of access and knowledge about how to use contraceptives, difficulties in using contraceptives because of partner's or family objections; contraceptive failure and sexual assault (Ipas, 2005).

Few studies were conducted on issues related to female's use of health services to tackle unwanted pregnancies and transmission of diseases due to sexual assault of young females. Dawit (2009) indicated in his study the lack of adequate knowledge and the necessary information on many young females to make use of EC. Likewise, the study conducted by Feleke and Ahmed (2009) showed that health professionals didn't give due attention to female university students in light of the growing coercive actions taken by male students which usually leads to unnecessary pregnancies and related problems of physical health of young female students because Young women in the university environment being away from home for the first time become free to experiment sexually especially without any parental supervision in addition, the coercion from older students and the liberal atmosphere of the university further encourage this experimentation which may lead to unwanted pregnancies and the predicament of dealing with the ensuing problems.

Globally, young people are beginning sexual activity at younger ages than previous generations with variations among many countries and regions. The risks related to sexual activity and unwanted pregnancy are among the most serious health risks that young people face and can

jeopardize not only physical health but also long-term emotional, economic, and social well-being. The other reproductive health risks that young people face include Sexually Transmitted Diseases (STDs) including HIV and unintended pregnancy often leading to unsafe abortion and its complications. Generally, sexually active young adults are less likely to use contraception than adults, even within marriage. Researchers have documented that many reported unplanned pregnancies occur within a year after first sexual intercourse which is often unprotected. The value of the effective use of contraceptive methods in preventing unwanted pregnancy has been documented in various studies and the high level of contraceptive awareness and low level of its usage has also been established.

According to the study at Bahirdar and Jim Universities female students indicated that the awareness of female students about EC 22.2 percent and 34.8 percent ever heard about EC the study fined out the awareness of EC increases with the age female student and also similarly as the year of study (Amaha & Nebreed, 2006 and Atsede, 2007).

The researcher realizes that there is research gap concerning the practices and challenges of using EC among first year female regular students at Addis Ababa University. Hence, the following basic research questions are set to address the issue:

1. What does the level of awareness of first year under graduate female regular students on the utilization of Emergency Contraceptive (EC) at Addis Ababa University look like?
2. What are the roles of health service providers at AAU clinic to utilize EC
3. What are the major challenges first year female regular undergraduate students are encountered to effectively utilize EC at AAU?

1.3. Objective of the study

General objective of the study is to reveal the knowledge, attitude, practice and challenges of utilizing emergency contraceptive by female undergraduate first year regular female student at Addis Abeba university.

To this end the following specific objectives were formulated by the researcher

- To determine the level of awareness of contraceptives with emphasis to EC among first female students Addis Abeba.

- To assess the attitude of first year regular female students towards EC.
- To assess the utilization of EC among first year regular female students.
- To assess the challenge of female student to utilize EC

1.4. Significance of the study

Emergency contraceptive pills play a vital role in preventing unwanted pregnancies and would serve as a backup to other family planning methods. Preventing unintended pregnancies by improving the existing family planning services through broadening of the method mix and ensuring access and availability of contraceptive methods, will ultimately contribute to the reduction of the morbidity & mortality of Ethiopian women particularly the youth.

Moreover, it will help policy makers and higher education leaders to undertake policy interventions, education initiatives and strategic planning to make emergency contraceptive readily available to the students and other groups of youths in the country within similar settings.

1.5. Delimitation of the study

The study is aimed to assess the practice and challenges of utilizing EC among female regular first year AAU students. Hence to make the study comprehensive and manageable it is among the total number of female students enrolled in the undergraduate programs at this time is about 4,945 among these about 1,337 are regular first year female students from which 114 of them are from the College of Social Science and 66 of them from the College of Business and Economics the study delimited only 50% of female first year students from the two Colleges. Finally, the awareness level, the provision of health care service of University and prevailing challenges was dealt with in this study.

1.6. Limitations

This study has some limitations. first , it was difficult to guarantee that students provided honest answers to the questions, since the survey involved a sensitive matter (i.e. sex), therefore; it is important to remember that the reliability of results of this study are dependent upon the accuracy of the responses. Its cross-sectional design was also limited in evaluating cause-and-effect associations. In addition, the study is limited to female students, knowledge and attitudes

of need to be considered as well if we hope to make changes in the use of contraceptives in this generation. However, this study assessed the practice and challenges of first year female student in utilizing of EC.

1.7. Organization of the study

This study consists of five chapters. Chapter one deals with introduction, whereby background of the study, statement of the problem, significance of the study, delimitation, limitation and definition of the terms. Chapter two treats review of related literature. Hence in this chapter different theories and assumptions concerning emergency contraceptive, young adult exposure to unprotected sex , the history of pregnancy and abortion and also different counters experience to prevent induced abortion. Chapter three deals on the research design and methodology. Chapter four is concerned with the analysis and interpretation of data and discussion on important issues. Whereas chapter five presents summery of findings, conclusion, and recommendation of the study. Finally list of reference materials used for conducting the study sample questioner, interval focus group discussion guides are annexed at the end.

1.8. Operational definitions and key terms

- **Emergency contraception:** A kind of contraception indicated after unprotected sexual intercourse to prevent unintended pregnancy.
- **Sexually active:** having a previous history of vaginal sexual intercourse.
- **Unintended pregnancy:** pregnancy occurred with no plan.
- **Knowledge:** awareness of the existence of EC, its importance and effectiveness.
- **Attitude:** Intention of using or recommending EC when a need arises. Intending to use or recommend is considered as a positive attitude, and no intention as a negative attitude.
- **Practice:** Any previous history of EC usage.
- **Media:** Radio, Television

CHAPTER TWO

2. REVIEW OF RELATED LITERATURE

2.1. The Concept of Emergency Contraception

Despite the availability of highly effective methods of contraception, many pregnancies are unplanned and unwanted. These pregnancies carry a higher risk of morbidity and mortality, often due to unsafe abortion. Many of these unplanned pregnancies can be avoided using emergency contraception (ICEC, 2004).

Emergency contraception refers to contraception methods that can be used by women following unprotected intercourse or if the women had a contraceptive accident such as leakage or slippage of condom to prevent an unwanted pregnancy (ESOG, 2002 and Trussell & Rymond, 2007).

There are two types of emergency contraception: hormonal methods and the insertion of intrauterine device (IUD). Hormonal emergency contraception consists of:

- 1) Combined oral contraceptive pills: contain 200mcg of ethinyl estradiol and 1.0 mg of levonorgestrel, taken within 72 hours of unprotected intercourse and then 12 hours later. This regimen is known as the Yuzpe's method, and it has been used since the 1970s.
- 2) Progesterone only pills: when pills containing 0.75 mg of levonorgestrel are available, one pill should be taken as the first dose as soon as convenient, but not later than 3 days (72 hours) after unprotected intercourse to be followed by another one pill 12 hours later. When pills containing 0.03mg of levonorgestrel are available, twenty pills should be taken as the first dose as soon as convenient but not later than 72 hours after unprotected intercourse to be followed by another 20 pills 12 hours later (ESOG, 2002; ICEC, 2004)

Another, non-hormonal method of emergency contraception involves insertion of a copper intrauterine contraceptive device (IUD) into the uterus. They are most appropriate for women in stable relationships who wish to retain the IUD for long-term contraception and who meet the screening requirements for regular IUD use. This method prevents implantation of fertilized egg and can be used to prevent pregnancy up to five to seven days after unprotected intercourse.

However, emergency IUD insertion requires a much higher degree in training and clinical oversight than administration of emergency contraceptive pills (Ellertson, 1996; Trussell & Rymond, 2007).

There are also two other methods which have been investigated more recently and they are often more promising protection: a synthetic progestin and antigonadotropine, danazol and mifepristone, more commonly known as RU - 486 (Ellertson, 1996 & Trussell & Rymond, 2007)

The exact mode of action of ECPs in any given case can not be known. ECPs have been shown to inhibit or delay an egg from being released from the ovary when taken before ovulation.

They may also prevent sperm and egg from uniting or stop a fertilized egg from attaching to the uterus. ECPs do not interrupt or abort an established pregnancy. They can only help in preventing unwanted pregnancy. ECPs play a crucial role in family planning programs as a backup method to avoid unwanted and unplanned pregnancy as well as a bridge to continuing use of family planning methods (ESOG, 2002; ICEC, 2004; Trussell & Rymond, 2007 & Galvao et al, 1999).

Emergency Contraception is indicated to prevent pregnancy after unprotected or inadequately protected sexual intercourse, including:

- ✓ When no contraceptive has been used
- ✓ When there is a contraceptive failure or incorrect use, including:
condom breakage, slippage, or incorrect use
- ✓ Two or more contraceptive missed combined oral contraceptive pills
- ✓ progestin-only pill (mini pill) taken more than three hours late
- ✓ More than two weeks late for a progestin only contraceptive injection (depot- medroxy-progesterone acetate or norethisterone enanthate)
- ✓ More than seven days late for a combined estrogen- plus – progestin monthly injection
- ✓ Dislodgment, delay in placing, or early removal of a contraceptive hormonal skin patch or ring
- ✓ Dislodgment, breakage, tearing or early removal of diaphragm or cap
- ✓ Failed coitus interrupts (e.g., ejaculation in vagina or an external genitalia)
- ✓ Failure of a spermicidal tablet or film to melt before intercourse

- ✓ Miscalculation of the periodic abstinence method or failure to abstain on fertile day of cycle
- ✓ IUD expulsion; or
- ✓ In case of sexual assault when the woman was not protected by an effective contraceptive method(ESOG, 2002 & ICEC, 2004)

2.2. The Need for Emergency Contraception

The need for emergency contraception is clearly demonstrated by the occurrence of unwanted pregnancies and induced abortion, and by the high rates of unwanted pregnancy among adolescents. Out of 210 million pregnancies occur in the world annually; about 79 million are estimated to be unintended. Of these, more than 50 percent end in abortion (IWHC, 2007; Ipas, 2007 and Bongaarts, and Westoff, 2000). No method of contraception is 100 percent effective and each year an estimated 8 to 30 million pregnancies occur around the world as a result of contraceptive failure (Segal and Lafuardia, 1990). Emergency contraception could fill an important gap for women who have had unplanned intercourse (including women who are raped or have been coerced to have sex), have experienced a contraceptive accident or have neglected to use an ongoing, precoital contraceptive method (Muia et al, 2000). A contraceptive failure analysis by James Trussell and his colleagues explained that in US 68 percent of contraceptive failures are classified as unintended pregnancies - 94 percent of those ending in induced abortion (Trussell et.al, 1999). According to the 1998 South Africa DHS, 61 percent of sexually active women used a modern contraceptive method, yet 53 percent of all birth were reported as mistimed or unwanted (Balnchard et al, 2005).

Moreover, it is estimated 2000 to 3000 condoms slip or break each day in Canada (Canadian Pharmacists Associations, 2000). The use of emergency contraceptives as a backup for condom or any contraception method failure is an important option for women to prevent unwanted pregnancies, and may encourage safer sexual behavior (Balnchard et al, 2005) in addition to these it serve as a bridge to continuing use of family planning methods (ESOG, 2002).

2.3. Effectiveness of Emergency Contraception

Among the various forms of contraception, emergency contraceptives are the only one that can be used after sexual intercourse, offering a second chance to prevent unwanted pregnancy

(Aziken et al, 2003). Various studies have shown that the levonorgestrel only regimen reduces the risk of pregnancy by 60 percent to 93 percent or more after a single act of intercourse, and the combined (Yuzpe) regimen reduces it by 56 percent to 89 percent. In direct comparison, the levonorgestrel regimen has been shown to be substantially more effective than the combined regimen. Both regimens appear to be more effective the sooner after intercourse (within 72 hours) they are used. Emergency contraceptive pills are not as effective as consistent and correct use of most modern contraceptive methods (ICEC, 2004; Ellertson, 1996; Remez, 2003 & Olenick, 1999).

2.4. Side Effects Associated with Emergency Contraception

No deaths or serious complications have been causally linked to emergency contraception. Side effects that are medically minor but troublesome to clients do occur; however, side effects of both regimens include nausea, vomiting abdominal pain, fatigue, headache, dizziness, breast tenderness, and irregular vaginal spotting or bleeding. The levonorgestrel only regimen is associated with significantly lower chance of nausea and vomiting than the combined regimen. In most women, menses following treatment will occur within a week before or after the expected time. No evidence exists to indicate that ECPs are dangerous under any known circumstances or in women with any particular medical condition (ICEC, 2004 & ESOG, 2002).

2.5. Different countries experience of EC Awareness and Knowledge

Rates of emergency contraceptive use vary widely but are generally low, especially as reported from population-based surveys. Demographic and Health Surveys from 2000 show that fewer than two percent of youth ages 18 to 26 have ever used emergency contraception in Armenia, Cambodia, Haiti, Malawi, Turkmenistan, and Uganda. In a survey of sexually active youth in 2000-2001, 10 percent of Jamaican university students had used ECPs. 18 percent among young women who had previously had clandestine abortions in Nigeria, 16 percent had used ECPs.

A recent review of emergency contraception literature from developed and developing countries indicates that awareness is generally low but slowly increasing. Even where the concept of emergency contraception is known, knowledge of accurate use of the method is very low. Surveys among university and postsecondary students in several African countries found that while a quarter to three-quarters of youth had heard of emergency contraception, accurate knowledge

about its use was minimal. In one study in Nigeria, 75 percent of students surveyed were aware of emergency contraception, but only 12 percent knew that the first dose of ECPs should be taken within 72 hours of unprotected intercourse.²¹ In a Ghana study, only 11 percent of the students surveyed (22 of 196 surveyed) knew the correct timeframe for starting ECPs (Aziken et al, 2003).

In Jamaica, even though 84 percent of the 205 students surveyed knew of ECPs, few knew about availability, dosage, and timing. A study in northern India reported that very few of the youth surveyed (women seeking abortions and college students) were familiar with the concept of emergency contraception. In a survey of adolescent mothers in South Africa, 189 out of the 250 respondents (76 percent) did not know about the availability of emergency contraceptives.²⁵ In a study of female undergraduate students in Nigeria, 58 percent were aware of emergency contraception, but only 18 percent of those women knew the correct timeframe in which ECPs are most effective (ICEC, 2004; Ellertson, 1996; Remez, 2003 & Olenick, 1999).

2.6. Factors affecting the utilization of emergency contraception

2.6.1. Experience of different countries

In many countries, women's ability to control their fertility is limited. Gender roles, power imbalances, cultural norms concerning sexuality and women vulnerability to rape and violence put them at high risk for unwanted pregnancy (UNFPA, 1997).

In different countries the differences in socio-demographic characteristics among the societies affect the perception and utilization of contraceptives. Generally speaking adolescent women are less likely than women over age 30 to use contraceptive methods. Reasons for this include lack of information, misinformation, and fear of side effects, along with geographic, social, cultural and economic barriers to access and use family planning (PRB, 2000). A study by Hogan and Belay (2004) on Contraceptive use and intentions in Ethiopia explained that in countries with a large rural population, the number of children ever born is generally found to be greater and the use of contraceptives less likely among rural than among members of other urban population (Hogan and Belay, 2004).

Knowledge of contraception among the students varies by the background characteristics of the respondents. According to EDHS 2005, about 88 percent currently married women and 93 percent men know at least one method of contraception. Women and men age 27- 32 are more likely than those of age 15-23 to have heard of contraception methods. In addition to this among unmarried women who are sexually active, knowledge and use of any contraception method is more likely higher than among those who are currently married at the time of surveys (CSA and ORC Macro, 2006). On the other hand, the study by Hogan and Belay reported that a normative economic factor - the inheritance of land by sons from their fathers considerably reduces the likelihood of contraceptive use, perhaps because it weakens the economic power of the wife and necessitates the birth and survival of sons (Hogan and Belay, 2004).

Moreover, the study by Hogan and Belay arrived at a conclusion that as population migration continues and more complex towns (- in which a diversity of ethnic groups live) develop; a tendency will emerge toward increased birth limitation (contraceptive use) among all of the ethnic and religious groups in Ethiopia (Hogan and Belay, 2004). Studies in developed countries on EC variously found that knowledge on EC was better in women who had had history of abortion, who were younger, unmarried, regular or prior users of contraception, more educated and more likely employed and as noted it appears to vary by age (Goldsmith, 2004).

A study conducted in south west Nigeria shows that the respondents in the age group 16-25 years and those who were aware of emergency contraception were likely to have used ECP. This also applies to respondents from Pentecostal Churches and those with traditional religion (Arowojolu and Adekunle, 2000). Ethnic groups are also a major cultural force in reproduction, however, and different religions affiliations are present within the ethnic groups, providing a context following greater understanding of the effects of religion on birth control. Based on the findings the study concluded that the main factors that increase the likelihood of a woman's using a contraceptive or intending to use one is her living in a family with a higher level of education or in a community with access to health services (Hogan and Belay, 2004).

A study by Berhanu Dessalegn on EC among women seeking post abortion care, reported that the literate women more likely than the illiterate counter parts in awareness of EC. Additionally, EC awareness of never married women is better than the not married counter parts (Birhanu, 2006).

Another study on KAP of EC conducted at Bahir Dar University indicated that awareness of EC increases as age increases and also similarly as the year of study increases awareness of EC also increases (Astede, 2007).

2.6.2. Parent and Peer Related Factors

Studies regarding the issue of EC showed that parents can be influential source of knowledge, belief, attitudes and values for their children. A study conducted in America suggests that parent child communication about sexuality appears to play an important role in reducing the onset of sexuality and to increase contraception practice among sexually active adolescents (Dutra, 1999).

Findings in Australia also indicated that female youth are more likely to seek advice to and look for information to prevent unplanned pregnancy and parents are the most likely sources of information followed by friends and media (Goldman, 2000). A study result for south west Nigeria explained that the commonest sources of emergency contraception was friends (32.8 percent of the respondents) and magazines (33.7 percent) (Arowojolu and Adekunle, 2000).

Similarly a study conducted in Kenya demonstrated that the main sources of emergency contraception were friends and schools (Muia et al, 2000).

A study in two inner cities of US reported that youth communication with their parents were almost 15 percent more likely to abstain from sexual intercourse and almost 20 percent more likely to use birth control if sexually active (Charyl et al , 2006 in Atsed, 2007) .

A study conducted in Ethiopia among post abortion service seeking women, health institutions were cited as the first source of information about EC (40.8 percent) followed by friends/relatives (33.9 percent) and the media (16.9 percent) (Berhanu, 2006).

2.7. Contraception Experience of University Regular Female Students

Given increasing adolescent sexual activity and decreasing age at first sex in developing countries, the use of contraceptives to prevent unwanted pregnancy and unsafe abortion is especially important (Aziken et al, 2003). A study on South West Nigerian university female students had found that the rate of contraceptive use about 32.8 percent among sexually active adolescents (Arowojolu and Adekunle, 2000). Whereas, a study among female undergraduate students in Nigeria conducted three years later the prior indicated that the rate of contraception

practice among sexually active respondents was 81.3 percent (Aziken et al, 2003) and also 62 percent among young South African women (Mqhayi et al,2004). In Ethiopia the DHS 2005 report revealed that, about 52 percent of unmarried but sexually active respondents of age group 15-24 used modern contraceptive. A study on students of ACTE indicated that 48.3 percent male and 47 percent female respondents had an experience of using modern contraceptives (Temesgen, 2007). Finding of a survey on female students of Jimma University explained that among one-third of sexually active respondents only one – fifth was using regular method of FP at the time of the study (Amaha & Nebreed, 2006). On the other hand, the rate of contraceptive practice among female students of Bahir Dar University is found to be 99.1 percent of sexually experienced students (Atsede, 2007). To see the situation in developed countries as compared with the developing nations, the contraceptive prevalence among sexually active Danish adolescents is 95 percent. Concerned with EC experiences, 58 percent of female Nigerian undergraduates heard about the method (Aziken et al, 2003) and only 50 percent of the Kenyan university students (Muia et al,2000). Moreover, only 17 percent of young South African women heard about the method and 1 percent ever used it (Mqhayi et al, 2004) as compared with 98 percent among Princeton University students (Harper & Ellerston, 1995). In Ethiopia it is indicated even far less than the developing nations; 22.2 percent and 34.8 percent in Jimma and Bahir Dar Universities female students ever heard about EC, respectively; and only five students in each practiced the method (Amaha & Nebreed, 2006 and Atsede, 2007).

2.8. The Role of Health Care Providers in Promotion of Emergency Contraception

According to the ICPD, Cairo 1994 Programme of Action recommendation, prevention of unwanted pregnancies must always be given the highest priority and all attempts should be made to eliminate the need for abortion (Ipas, 2007).

At the 1995 international conference on emergency contraception held in Bellagio, Italy, experts identified the presence of few products and failure to provide the service by many health programs as obstacles for the wider use of emergency contraception. The Bellagio consensus states “we must make access to emergency contraception a reality” (CSEC, 1995). However emergency contraception is unknown for vast majority of potential clients and service providers

especially in developing countries (Ellertson, 1996). Studies have suggested that most women do not need any interaction with health care providers in order to use ECPs safely and effectively.

However, counseling can serve to reinforce any messages given in writing and may lead to better overall out come. Counselors should be mindful of possible unique sources of anxiety among women requesting ECPs; embarrassment at failing to use contraception effectively, rape related trauma, concern about STIs, including HIV, due to condom failure or non – use, and hesitation due to a misperception that ECPs, cause abortion (ICEC, 2004).

Heath care providers requires to counsel adolescents about ECPs during visits to health care facilities women of reproductive age being treated for sexual assault in emergency department or other health settings should be counseled about ECPs and offered a complete course of ECPs treatment at the time of assessment. Counseling about EC should include: description of the methods, mechanism of action, indication for use, efficacy, safety ,common side effects, time limit for use, where and how to obtain the method and also information about other effective methods of contraception (ICEC, 2004 & Gold et al, 2004). Some studies done in USA as indicated, knowledge of emergency contraception among providers increased by 53 percent; which was 13.2 percent prior to the implementation of training programs of emergency contraception for providers and clients (Gold et al, 2004).

In Brazil, obstetrician - gynecologists play a critical role in informing their clients about emergency contraception and in educating the public about the proper regiment (Galvao et al, 1999).

However, a study conducted in Nigeria on health care providers' knowledge and attitudes towards EC indicated that nine in ten providers have heard of EC but many of them lack specific knowledge about the method. Only 10 percent of these providers correctly identified the drug contents, dose and timing. One in ten of those who knew of EC always provide information to clients. The same study revealed that fewer than half of women who were aware of or had used EC had received information from trained health care providers (Margaret et al, 2006).

In Ethiopia, a study conducted at Jimma University on the potential clients and service providers' perspective towards EC shows that almost all interviewed nine MCH/FP service providers of governmental and non- governmental MCH/FP service outlets were familiar with

the term “emergency contraception”, although many providers knew the concept and some could mention EC regimens like Yuzpe regimen. Most lack comprehensive knowledge on the different methods available and their regimen. All agreed that, EC should be part of the MCH/ FP service (Ameha & Nebered, 2006).

CHAPTER THREE

3. RESEARCH DISGN AND METHODOLOGY

3.1. Research design

In this study, the researcher selected Addis Ababa University to assess the practice and challenges of utilizing emergency contraceptive by first year female undergraduate regular student.

3.2. Research method

A descriptive study design was employed in this study. This helped the researcher to utilize both qualitative and quantitative research approaches the target population used for this study was the dwellers of Addis Ababa University female first year regular students.

3.3. Data source.

Both primary and secondary sources were used in this study. The primary sources include first year female students of AAU, health professionals of AAU clinic main campus (sdist kilo) these are nurses and pharmacist. The researcher also used secondary sources which contain data related to the topic under study, the university clinical relevant policy document and reports

3.4. Sampling Procedure, sample sizes and techniques

3.4.1. Sampling procedure

This study was conducted at Addis Ababa University and hence, first year regular female students were used as the sampling unit for the study. Two stage sampling procedure was selected as the sample from the study area. At the first stage, the two were colleges selected and thus random sampling (lottery method) was used to select them from 11 colleges of AAU. Then, Stratified sampling proportional technique was used to select the first year regular female students from the departments of two Collages, namely Social Science and the Colleges of Business and Economics.

Table 1; the numbers of respondents` included from the College of Social Sciences and Business and Economics.

College of Social Science	
Archeology	18
Geography and environmental science	20
History	-
Philosophy	-
Political science and international social	21
social Anthropology	23
Sociology	32
Total	114
College of Business and Economics	
Accounting and finance	25
Management	14
Public Administration and policy	5
Economics	22
Total	66

3.4.2. Sample Size and Sample Techniques

According to the registrar's office of the University, the total number of female students enrolled in the undergraduate programs in 2014 EC is about 4,945 among these about 1,337 are regular

first year female students from which 114 of them are from the College of Social Science and 66 of them from the college of Business and Economics.

A total of 90 first year female students from the selected two colleges' namely from social s and the colleges of Business and Economics was the sample size for the study. The sample size was determined by its convenience to the researcher due to time and financial constraints only 50 % of female first year students from the college of social sciences 114 and the college of Business and Economics 66 used as sources of data to make the study manageable.

3.4.3. Data Collection Instruments

In order to gather data, both quantitative and qualitative data gathering tools were used because the researcher assumed using both methods would help to get secure, reliable and adequate information.

The primary data for the study was generated through three main tools: structured questionnaire, focus group discussion (FGD) and key informants interview.

Questionnaire

Questionnaire was utilized to collect data from first year female students because questionnaire enables to secure factual information about opinions and views and also appropriate instrument to obtain a variety of opinions with in a relatively short period of time (Best and Khan, 2003)

Having read various literatures thoroughly and discussing with experienced instructors the researcher develop the questioner the questioner had three parts,

The first part was intended to generate information about the respondents' socio-demographic characteristics, family and partner communication about reproductive health issues; the second part was about the sexual background history of the respondents and their practices and challenge of the regular contraception and the third, parts were about the study subjects challenge and practices of ECs and related issues. The questionnaire for first year regular female students of AAU was distributed at the end of class by asking the instructors during the teaching and learning times. Same departments specially accounting and management it was distributed during lunch time in the student dorms. A total of 90 questionnaires were distributed College of Social Science 57 and 33 for Business and Economics.

Focus group discussion

Focus group discussion was held with 30 randomly selected participants assigned from two colleges namely College of Social Science and Business and Economics students in to 5 groups to enable group participants generate more specific ideas about the study issues.

Key informants interview

Semi structured guide was questions used to gather information from the health professionals of AAU clinic (main campus) these are nurses and pharmacist.

Finally secondary data were gathered from relevant AAU policy document and reports in order to substantiate the primary data obtained.

3.5. Data Processing and Analysis

Information generated through focus group discussions and in-depth interview were qualitatively analyzed and enriched the quantitative survey results. The data collected from the survey were entered into computer for analysis mainly using Statistical Package for Social Sciences (SPSS version20). Then, data were edited, coded, cleaned and some consistency checks were made to assess the quality. It was done by running descriptive (statistics frequencies and cross tabulation) among various reported cases or variables.

3.6. Ethical Considerations

The research permission was obtained from AAU and each of the selected institutions respectively before the data collection process started. The study participants were informed about the purpose of the study and the importance of their participation in the study. The study subjects were informed as they can skip question/s that they did not want to answer fully or partly and also to quite the process at any time if they wanted to do so and their participation was voluntary. After assuring the confidentiality nature of responses and obtaining informed consent from the study subject, the questionnaires were distributed among the selected female students only by the enumerators in collaboration with the instructors in their respective classes of the last 15 minutes to be filled with a strict privacy.

CHAPTER FOUR

4. PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

This chapter deals with data presentation, analysis and interpretation of the finding of the study.

The necessary data were collected mainly based on assessing the practice and challenges of emergency contraceptive among the first year regular female student of AAU.

The data obtained through questionnaires, interviews, group discussion and secondary sources were analyzed data interpreted so as to treat the basic question raised in chapter one.

A total of 198 first year female students of the selected two Colleges of Addis Ababa University have respondents in the study. 198 (50 percent) were from Addis Abeba university college Business and Economic 66(50. percent) were from Social Science 114(50 percent).

Based on the response obtained from sample respondent, the analysis and interpretation of the data is presented following each table.

4.1. Back ground characteristics of respondents’

4.1.1 Socio- Demographic Characteristics of the study population (March, 2014)

Socio- Demographic Characteristics	Frequency	%
Age (years)		
18-21	54	60
22-27	36	40
27+	-	-
Total	90	100
Previous Place of Residence		
Urban	51	56.7
Rural	39	43.3
Total	90	100
Religion		
Orthodox Christian	39	43.3
Muslim	12	13.3
Catholic	9	10
Protestant	30	33.3
Total	90	100
Marital status		
Never Married	63	70
Ever Married	18	20
Divorce	3	3.3
Live with my boy friend	6	6.7
Total	90	100

As shown in Table 4.1, more than half (54 percent) of the respondents were age 18-21 and the remaining were age 22-27.

Majority of the study subjects 56.7 percent had urban background prior to their entry to the university, with the rest being from rural. The married respondents account only 20 percent and those who never married about 70 percent. With regard to their religion, about, 43.3 percent Orthodox Christian followed by 33.3 percent were Protestant, Muslim 13.3 percent and Catholic 10 percent.

Table 4.1.2 Family Background, Partner and Peer Related Characteristics of the Respondents' (March, 2014)

Family, Partner and Peer Related Factors	number	percent
Respondents' fathers level of education		
Illiterate	22	24.4
Primary education	36	40
Secondary education	21	23.3
Above secondary education	11	12.2
Total	90	100
Respondents' mothers level of education		
Illiterate	48	53.3
Primary education	36	40.4
Secondary education	-	-
Above secondary education	6	6.7
Total	90	100
Discussion about reproductive health issues with father		
Yes	18	20
No	48	53.3
Fathers not alive	24	26.7
Total	90	100
Discussion about reproductive health issues with mother		
Yes	54	60
No	6	6.7
Mother not alive	30	33.3
Total	90	100
Discussion about reproductive health issues with boyfriend/husband		
Yes	18	20
No	72	80
Total	90	100

As the result shown in Table 4.1.2, about 12.2 percent of the respondents' fathers were educated secondary and above, 40 percent primary and those 24.4 percent respondents' fathers were illiterate. Where as 40.4 percent of respondents' mothers were in the primary level and 52.6 % illiterate.

Concerning with communication of study subjects with their parents, the respondents were discussing about reproductive health matters better with their mothers 54 (60%) than their fathers 19(21.1 %).

As Table 4.1.2 shows, about 18(20%) of female students were discussing about sexual and reproductive health issues with their boyfriends or husbands. Moreover, more than three fourth of the respondents 72(80%) were also not discussing about reproductive health matters with their boyfriends/husbands.

**Table 4.1.3 Sexual Experience, Family Planning Knowledge and Practices of Respondents’
(March, 2014)**

No	Item	Alternatives	Response	
			frequency	%
1	Have you ever had sexual intercourse?	yes	67	74.4
		No	23	25.6
		Total	90	100
2	At what age were you had the first sexual intercourse?	Below 18	43	64.1
		18-27	12	17.9
		I don't know	12	17.9
		Total	67	100
3	How many partners have you ever had for sexual intercourse in your life time?	One	36	53.7
		Two	15	22.5
		Three	3	4.5
		More than three	3	4.5
		I Don't remember	9	13.4
		I do not know	1	1.5
		Total	67	100
4	Have you ever heard about family planning?	Yes	83	92.2
		No	7	7.8
		Total	90	100
5	Which method have you ever used?	Oral pills	6	9
		Injectables	22	32.8
		Condoms	12	17.9
		Calendar/rhythm	18	26.9
		Withdrawal	6	9
		IUD	3	4.5
		Total	67	100
6	Intention to use modern contraception in the future?	Yes	57	63.3
		No	24	26.7
		Not sure	9	10
		Total	90	100

As indicated in Table 4.1.3, out of the total respondents 67(74.4%) ever had sexual intercourse in their life time. those who had sexual intercourse experience 43(47.8) percent began sexual intercourse before age 18, and above and the rest did not remember or knew the actual age they started sexual intercourse. Concerning the family planning knowledge of the respondents Table 4.1.3 shows that, 83(92.2 %) of female students in the study have ever known at least one modern regular contraceptive method. While only 7 students (7.8% of the respondents) never heard about any family planning method in their life time. This result shows the existence of better awareness towards the regular contraceptives compared with the study result at Jimma University where 93.9 percent of the respondents had ever heard about regular contraceptives (Ameha and Nebreed, 2006).

Moreover, in the study those sexually experienced female students were asked about their contraceptive use. As shown in Table 4.1.3 above, out of the 67 sexually experienced respondents 67(74%) had ever used one of the contraceptive methods. Condoms 12(17.9 %), injectables 22(32.8%) and calendar methods 18(26.9%) were the most commonly used regular contraception by the female students in the study.

Finally the study finding shows that out of all the respondents 57(63.3) intended to use modern regular contraception in the future and significant number of respondents 9(10%) were not sure about their future use. 24(26.7%) percent of the remaining female students in the study were not interested to use any regular contraceptive method in the future because of the most commonly stated reasons, fear of side effects and partner opposed.

4.1.4 Respondents' experience of pregnancy and abortion of respondents

No	Item	Alternatives	Response	
			frequency	Percent
1	Ever had pregnancy?	Yes	51	76.1
		No	16	23.9
		Total	67	100
2	Ever had unplanned pregnancy?	Yes	42	82.3
		No	9	17.7
		Total	51	100
3	Reason for unplanned pregnancy?	Calendar method was not correct	15	35.7
		Condom slippage/rupture	9	21.5
		Infrequent sex	6	14.3
		Unavailability contraceptive	4	9.5
		Other*	8	19
		Total	42	100
4	Ever had induced abortion?	Yes	40	95.2
		No	2	4.8
		Total	42	100

As indicated on table 4.1.4 above shows that, 51 (76.1%) of those sexually experienced female students in the study ever had pregnancy and the majorities 42(82.3%) reported that their pregnancies were unplanned. Of those reported having unplanned pregnancy, 15(35.7%) failed to prevent pregnancy due to miscalculation in calendar method, condom slippage or rupture, 9 (21.4%), never used any method because infrequent sexual intercourse 6 (14.2 %), and 4 (9.5%) percent unavailability of contraceptives.

Furthermore, out of those respondents who ever had pregnancy, 51 (76%) out of this 42(62.7%) unplanned pregnancies 40 (59.7%) were terminated by induced abortion, 2(4.8%) end with unwanted live births.

4.2. The knowledge and Practice of Emergency contraceptive among First year Regular AAU female students

4.2.1 Respondents' Awareness of Emergency Contraceptives (March, 2014)

No	Item	Response	
		frequency	percent
1	Ever heard about emergency contraception	40	44.4
2	Never heard about emergency contraception	50	55.6
		90	100

According to the survey findings, as shown in Table 4.2.1 40 (44.4 percent) of the whole respondents only ever heard about EC were from AAU regular first year student. In addition, majority of the respondents (50% percent) who heard about EC were in the age group 21–23 (Not shown). This result looks better as compared with the study findings at Jimma University on female students (22.2 percent) and among post abortion service seeking women of selected hospitals in Addis Ababa (14.1 percent), while nearly similar with the study result on female students of Bahir Dar University (34.8 percent) (Ameha & Nebreed, 2006, Berhanu, 2006 and Atsede, 2007).

In the two focus group discussions conducted among female students of both Business and Economics and Social Science only five students had ever heard about ECs. The rest vast majority of the discussants were unaware of any modern product which could be taken after unprotected intercourse in order to prevent unplanned pregnancy. Whereas majority of the participants were mentioned induced abortion as the best mechanism to prevent unwanted pregnancy. Furthermore, respondents those who had ever heard about EC were asked about their first source of information about EC. As shown in table 4.2.1, 20 (50%) percent of those female students who had ever heard about EC mentioned female friends as their first source of information about EC.

4.2.2 Respondents' first Sources of information about EC (March 2014)

No	Item	Alternatives	Response	
			Frequency	Percent
	Your first Sources of information	Television/Radio	7	17.5
		Boyfriend/partner	4	10
		Female friends	20	50
		At AAU campus clinic	5	12.5
		Reproductive Health clubs	4	10
		Total	40	100

Significant number of respondents also mentioned female friend (50%), television/radio (17%) university clinic (12.5%) and boyfriend or partner (10%) and reproductive health as their first source of information.

In the focus group discussions among female students also explained that female friends were their first source of information about utilizing of EC for the majority of the discussants who had ever heard about EC. (March 09 12014)

While one of the discussants obtained the message about EC for the first time from a displayed poster and the other gained the information from training for female students facilitated by March project Acha Lacha training at AAU on various reproductive health issues and about HIV/AIDS.

Besides the role of mass medias, reproductive health clubs and health care providers, the study result indicated that discussion within female friends about sexual matters had significant role in the promotion of modern contraception in general and emergency contraception in particular.

4.2.3. Respondents' Knowledge of EC (March, 2014)

No	Item	Alternatives	Response N=40	
			Frequency	Percent
1	Which one can be used as emergency contraception	Combined oral pills	16	40
		Progestin only pills/Postinor	6	15
		Herbal/Vaginal Passaries	3	7.5
		IUCD	3	7.5
		Bitter medications (e.g. Quinine, Lemmon, Potash)	6	15
		Monthly injection	4	10
		I don't know	2	5
		Total	40	100
2	When should be EC taken after unprotected sexual intercourse	Within 24 hours after sex	5	12.5
		Within 72 hours after sex	10	25
		Within 4-6 days after sex	2	5
		Even after missed period	6	15
		I do not know	17	42.5
		Total	40	100
		Completely different from the drug of regular contraceptives	3	7.5
		The same but a high dose in the same hormones	10	25
		I do not know	7	17.5
		Total	40	100
3	The mechanism of action of EC	Prevent pregnancy from occurring Induced abortion	29	72.5
		Prevent pregnancy and induced abortion	4	10
		I do not know	7	17.5
		Total	40	100
4	Effectiveness of ECPs in preventing pregnancy	Highly effective (99%)	14	35
		Three-fourth (75%)	15	37.5
		I do not know	11	27.5
		Total	40	100

As indicated in table 4.2.3 in the item one given a list of seven drugs and traditional practices related with pregnancy prevention, 16(40%) of respondents who had heard of emergency contraceptives correctly identified combined oral contraceptive pills, 6(15%) also identified

progestin only pills and only 3(7.5%) percent identified IUD as emergency contraceptive methods. As shown in Table 4.2.3. 47.5 percent of female students who had heard about EC knew at least one correct method of EC. Furthermore, the listed traditional practices such as bitter medications and home remedies and herbal vaginal passaries were also unexpectedly mentioned as emergency contraception by 6 (15 %) and 2 (5%) of respondents have no idea.

Similarly, in the focus group discussions among female students different traditional practices and homemade remedies were also raised as unintended pregnancy prevention mechanisms. Students of urban background mentioned that “*each 500mg of 20 tablets of Ampicillin with Coca- Cola and a high dose of Quinine tablets*” as the most commonly used home remedies to prevent unintended pregnancy and also those students from rural areas that “*taking a drink prepared from different herbs and inserting unknown objects through the vulva*” as commonly and traditionally practiced attempts of abortion for unwanted pregnancy prevention.

Of the 40 female students who were aware of emergency contraception, about 10(25%) correctly identified 72 hours as the time limit for the method’s use. An addition 15(12.5%) percent thought that emergency contraceptives were effective only when used within 24 hours and immediately after sex of unprotected sexual intercourse respectively. Although these responses were within the 72-hour limit, such misinformation might inhibit someone who could still prevent a pregnancy from taking emergency contraceptives because they thought they had missed their “window” of effectiveness (Aziken et al, 2003).

In the focus group discussion of female students, all discussants those who had awareness of EC stated the correct timing of method use. No discussant knew the appropriate name of ECs rather they all called it as “*the 72 hour’s*”. This was ascertained in the interview among the health care providers that their students also called it similarly.

Only 29(72.5%) of the respondents who had awareness about EC thought that ECs inhibits ovulation and prevent implantation or conception and those 4(10%) percent understood as induced abortion. Moreover, 15(37.5%) of the respondents cited that ECs are 75 percent effective in preventing pregnancy.

Awareness of the circumstances under which EC might be needed vary among respondents as shown in Table 4.2,3. Sexual assault (58 percent) and accidental breakage or slippage of condom

9(21.4%) were the most cited situations unavailability of contraceptive 4(9.5%), miscalculation in calendar method 15(35.7%) and other specific 8(19) under which EC should be taken to prevent pregnancy.

In the focus group discussion (March 10 214) of female students' issues concerning drug composition, mechanism of action, effectiveness, side effects and situations for EC need were also raised. In the discussion it was observed that there was misunderstanding about the drug composition of ECs that majority of those who had heard about EC thought that it is completely different from the regular contraceptives hormonal composition. With regard to the mechanism of action of ECs four of those heard about EC agreed that it dislodge the embryo after the implantation has been taking place and considered it as an induced abortion. Only one student from Business and economics stated that it inhibit ovulation and prevent implantation.

In relation to its effectiveness, majority of the discussants were in doubt of its effective prevention, while students, from AAU explained that it is 37.5 percent to 75 percent effective to prevent pregnancy if it has been taken in time. Most of the discussants had no information about its side effect but worry about it. Majority of the discussants also agreed about the availability of the method to overcome problems of students under situations like: sexually assaulted, who forgot taking the regular contraception, exposed to accidental sexual intercourse without any barrier method used, for those miscalculated their safe period and in case of condom slippage.

4.3. Attitude towards Emergency Contraception and Willingness for Future Use and challenges

4.3.1. Respondents' Attitude towards Emergency Contraception (March 1214)

No	Item	Alternatives	Response N-40	
			frequency	Percent
1	Reason to not use EC in the future	It is not effective	9	22.5
		It is dangerous to one's health	11	27.5
		I am using regular contraceptive methods	8	20
		My partner does not like	3	7.5
		Am worry about STD more than pregnancy	9	22.5
		Other reason, specify	3	7.5
		Total	40	100
2	EC is necessary to prevent abortion and its complications	Yes	26	65
		No	11	27.5
		I don't know	3	7.5
		Total	40	100
3	Willingness to use EC or recommend others in case of need in the future	Yes	30	75
		No	7	17.5
		Not sure	3	7.5
		Total	40	100

In the focus group discussion also most participants voiced about its side effect not only on the baby but also on the mother when it failed to work. Significant number of discussants feared potential long-term side effects that it might cause infertility if used over a long period of time.

If it affects my In my opinion, in case it failed to prevent the pregnancy, the baby may be born deformed (A student of AAU March 9, 2014).

Considering the side effects of ECs enlighten in the review of related literature, the responses of some of the participants indicated the impact of rumors on their positive attitude towards ECs. Majority of the respondents 26(65%) approved that EC is necessary to overcome the need for induced abortion and its complications.

In contrary, 20(50%) of the respondents worry about that if men knew the existence of the method, they might impose or encourage women to use it regularly and hence women might be exposed to STDs including HIV/AIDS.

During the focus group discussion, following a short description of the method by the moderator, most students reacted positively to the concept of EC. The participants immediately perceived a potential benefit of the method for students. They welcomed an alternative to unplanned child bearing or abortion that could result from unprotected sex, and they noted that EC would be ideal for university students, playing a key role in decreasing not only both pregnancies and abortion but also the resulting consequences like drop outs of schooling and the lives end with tragedies.

My friend had an accidental intercourse with her classmate when they were studying together and became pregnant. After months later she tried to abort and felt sick for long period and finally she dropped out of her college study for two years...there are also similar tragedies which are yet not told (A student from AAU March11, 2014).

While most participants approved the availability of EC at university level, some participants expressed their concerns behind loose access.

Some of the youth will not engage in sex because they fear getting pregnant; so they find that there is a way to prevent whatever is taking over this fear. Then they will say, 'I am free' and go on having unprotected sex (A student from AAU March 11, 1204).

Some of the discussants also felt that EC might encourage unprotected sex and consequently lead to increased exposure to STDs, including HIV.

Moreover, this group of participants worried that the availability of EC might undermine the use of other regular contraceptive methods, including condom. They stressed that all women should be encouraged to use a more regular method of contraception and to rely on EC only when the regular method fails.



First year Business and Economics students when discuss about EC

4.3.2. Willingness of respondents' to Use EC in the Future, (March, 2014)

No	Item	Alternatives	Response	
			Frequency	%
1	Reason to use EC in the future	It is safer than the regular contraceptives	40	44.4
		It is more convenient than the regular contraceptives	17	18.9
		It is more effective than the regular contraceptives	5	5.6
		Side effect	3	3.3
		Don't know	3	3.3
		Other reason, specify	22	24.4
		Total	90	100

As shown in Table 4.2.4. More than half of the respondents (60%) who heard about EC shown their willingness to use EC or recommend others in case of need in the future.

About 75% of female students of AAU who had heard about EC would like to use emergency contraceptives in the future, 17% would not, while 7.5% were unsure. The frequency of the reasons given for each desire is shown in Table 4.3.2. The commonest reason given by those intending to use ECs in future was that it is more convenient than the regular contraceptives (17.5 percent). On the other hand, the commonest reason (31.6 percent) for those without such intention was that it is dangerous to one's health.

These findings agree with findings obtained in South West Nigeria in which similarly convenience of ECs cited by 58.5 percent of the respondents as the main reason for their willingness to future use, while 46.8 percent those having no intention to use cited as best reason as it is dangerous to one's health (Arowojolu & Adekunle, 2000).

Most of the participants of the focus group discussions accepted the availability of EC particularly for the youth at university level and also willing to use or recommend others in case of method need in the future.

4.4. The challenges to utilizing EC of respondents'

No	Item	Alternatives	Response	
			Frequency	Percent
1	Have you ever had unwanted pregnancy because of not taking EC?	Yes	38	90.5
		No	4	9.5
		Total	42	100
2	What is your main reason not use EC ?	I used regular contraceptives correctly and consistently	7	16.5
		Had no enough information about EC	20	47.5
		Had no access to EC	3	7.1
		Religious/moral reasons	1	2.4
		Partner oppose	1	2.4
		Am worry about STD more than pregnancy	4	9.5
		I don't	1	2.4
		Other, specify	5	11.9
		Total	42	100
3	How many times induced abortion?	1	29	72.5
		2	11	27.5
		Total	40	100
4	Do you think the contraceptives available everywhere when you want EC?	Yes	27	67.5
		No	13	32.5
		Total	40	100
5	Where did you get EC?	Public hospitals	4	10
		Private pharmacy	30	75
		AAU/campus clinics	6	15
		Total	40	100
6	Do you believe that you will use EC as regular contraceptive?	Yes	22	55
		No	10	25
		I don't know	8	20
		Total	40	100

As indicated table 4.4 because of not taking EC, 38 (90%) ever had unintended pregnancy which might be terminated by induced abortion or resulted unwanted live births.

Moreover, out of 90 respondents 44.4% who had EC awareness but ever had an experience of sexual intercourse without using condom or any contraceptive, (82.3) ever had unplanned pregnancy too majority respondent because of had no enough information about EC47% .

On item 5 respondents 55% considering EC like regular contraceptive but according to WHO does not recommend EC as a regular form of birth control, due to its lower efficacy as compared to other hormonal contraceptives.(DKT 20011)

As indicated in table 4.4 above majority of students EC get from privet pharmacy 75% , from public hospital 10%, and 15% from AAU clinic.

On the focus group discussion the students held written a group of female students in the College of Social Sciences indicated that cultural barriers played a significant role to discuss on the utilization of EC with clinical nurse personnel counseling.

Likewise, a Social Science student at the AAU said (march 12,2014);

I don't want go to AAU clinic because I hate the bureaucracy am interested in receiving EC directly from a clinical nurse because receive ECP counseling from clinical nurse but to bridge the gap until a future pharmacy's visit based on prescription of clinical nurse "unwelcoming and judgmental and may not seek their services because of embarrassment or lack of privacy.

On focus group discussion majority students exaggerated beliefs about side effects, lack of knowledge regarding EC, discomfort with clinic personnel, and lack of awareness of legal rights to family planning services and abortion.

This finding also suggests that significant number of first year female AAU highly exposed to unintended pregnancy which paves the way to an induced abortion and its complications.

4.5. Health Care Providers Perspectives towards EC

As described in the review of related literature, health care providers require to counsel adult about ECPs during visits to health care facilities. Counseling about EC should include: description of the methods, mechanism of action, indication for use, efficacy, safety, common side effects, time limit for use, where and how to obtain the method and also information about other effective methods of contraception (ICEC, 2004). Since the health care providers play a pivotal role in disseminating information about new reproductive technologies and providing family planning methods, conducting a survey to assess their knowledge and attitude regarding EC is significant to define the best strategies and programs to improve access and utilization to this method (Galvao, et al, 1999). In this study key informants interview had been conducted among the health care providers of the selected main campus clinic to assess their attitude towards EC and two health care providers from AAU clinic were participants for the key informants' interview. The interview had two parts: the first part concerned with the knowledge and attitude of the individual health care provider while the second part focused on provision of EC in their respective institution.

All the participants from MCH/FP outlets were working on family planning. The participant from AAU clinic did work on FP because FP service is included in the duty list of the clinic as one of its purpose. Though FP service was part of university clinic service, the clinic nurse was trying to distribute condoms and EC with her own initiative in collaboration with different NGO like DKT Ethiopia and March project.

Likewise, a pharmacist at the AAU clinic (main campus) said (march 12, 2014);

Students have a chance still after unprotected sex to hinder un wanted pregnancy, but because of lack of awareness about EC students there were students who terminated their university study due to pregnancy which may end with live birth or an induced abortion.

Although most providers knew the concept, comp Levonorgestrel-only (Postinor-II) was the most commonly mentioned EC regimen among some of the participants. Most lack comprehensive knowledge on the different methods available and their regimen. Majority of the participants also stated that they often provide by cutting the regular contraceptive pills as EC.

All the participants explained the appropriate time for method use and majority stated that it is effective if it has taken within 72 hours after unprotected intercourse. Respondents from AAU clinics ascertained that there was no complain of failure of the method among those students who used EC so far. Majority of the respondents described that the mechanism of action of EC is hormonal which disturbs the uterus to prevent the beginning of implantation and the appropriate situation to take EC.

Most of the participants revealed that it had no serious side effects on the embryo when it failed to prevent the pregnancy or taken late. With regard to ECs role towards reduction of maternal mortality caused by induced abortion, significant number of participants explained that it can reduce if it has been taken appropriately. Some others were not sure about its role except one respondent who did not think that ECs reduce maternal mortalities due to abortion.

A clinical nurse at AAU(March 13,2014) said;

Now days the youth are observed to lie on ECs and refuse to use condom and other contraceptives. Due to this fact it exacerbates the transmission of STDs specially the current challenge of the world HIV/AIDS and in my opinion rather than reducing maternal death this habit may increase the death due to HIV/AIDS.

The MCH/FP outlets and the university clinic have enough supply of EC pills as learned from response of the care providers. Levonorgestrel-only regimen was the most commonly used method type in the institutions and those midwife and clinical nurses were providing the method for those who need EC service. The service is provided through out the working days in the week in each of the clinics while considering the time sensitive nature of EC the AAU clinic providing the method even by the week end through their youth counseling center. Most of the participants had no in-service training about EC regimens and did not know that EC is part of the FP method mix they provide.

With regard to their students knowledge towards EC the respondents explained that most of the students were lacking the adequate information about EC particularly its appropriate situation to be taken, side effect, the consequence of its frequent use and also the correct time to be taken. Majority of the students were unmarried youths of age 18–25 and sometimes those married

adults requested the method. According to the response of the care providers not using any barrier method to prevent pregnancy was the most commonly mentioned situation by their students which led them to seek EC service and accidental sex, forgetting taking oral contraceptive pills, condom slippage and forced sex were also of the mentioned circumstances.

The participants noted that as the awareness of availability of EC among the society was limited the number of students who sought EC service was not as significant as those who required abortion service.

Concerning this issue, one of the AAUS clinical nurses said (March 13, 2014)

Lacking information about the availability of EC, number of the student these days the who seek EC service is moderately increasing; particularly the number of second year and third year more student request a day after exam time. In the past years the number of clients was 5-8 per month while currently 10 -15 both male and female students, student youths and sometimes married women appear seeking EC service. With the exception of few students who want to use EC frequently as a regular contraceptive, the numbers of students who require EC service are not more than 5 per Year.

Some of the respondents were giving counseling for student those who sought EC and the rest providing the service only. The institutions also had no continuous education and promotion program about EC in the students and particularly at university levels.

AAU's nurse explained that information was given for those female students who participated the training on reproductive health issues facilitated by the university Gender Club and March project as a trial of promotion of EC in addition to this nurse explained DKT Ethiopia give us different contraceptive materials specially condom, injection (depo 3 month injection) .

However almost all the participants worried about the exacerbation of transmission of STDs particularly HIV/AIDS due to frequent use of EC; they all agreed that an extensive awareness creating education about EC should be practiced by the responsible governmental and nongovernmental organizations including their institutions in order to reduce unintended

pregnancy and its consequences. Moreover most of them suggested that the service should be expanded within public and private health centers and also at university clinics too.

In general the key informants' interview confirmed that awareness of the concept of EC was virtually universal among the participants. However, the extent of practice and knowledge towards EC among the health care providers vary individually. Those who had training were better in their knowledge of EC methods than those who had no training. Majority of them had also a positive attitude towards EC and the enhancement of the service. Although all the participants stressed on the society in general and the youths in particular students, should be encouraged to practice the regular contraceptives including condom rather than frequently using EC.

CHAPTER FIVE

5. SUMMARY, CONCLUSION AND RECOMENDATIONS

5.1. Summary

The main purpose of this study was to assess the practices and challenges of utilizing emergency contraceptive by the first year regular students at AAU to protect themselves form for unplanned pregnancy.

To this end descriptive survey design was employed. The following basic questions were set to achieve the purpose of the study

1. What does the level of awareness of first year under graduate regular students on the utilization of Emergency Contraceptive (EC) at Addis Ababa University look like?
2. What are the roles of health care providers at AAU to utilize EC
3. What are the major challenges first year female regular undergraduate students have encountered to effectively utilize EC at AAU?

In order to answer the above basic questions questionnaires, interview and group discussion and document review were used as instrument of data collection. The participants of this study were regular first year female students of AAU and health professionals of AAU clinic (main campus) these are nurses and pharmacist. The sample two colleges were selected by using random sampling (lottery method) from 11 Colleges. Then Stratified proportional sampling technique was used to select the first year regular female students from the departments of the two colleges, namely, the CSS and CBE and AAU clinical nurses& pharmacists, were selected by using purposive sampling technique. The data obtained were then analyzed and interpreted by using statistical package for social sciences (SPSS version 20). It was done by running descriptive statistics among various reported cases or variables. The major findings of the study were summarized as follows.

1. Respondents background

- ❖ According to the survey findings, age of the study subjects range from 18-27 years more than half (60 %) of the respondents were age 18-21 and the remaining were age 22 and above.
- ❖ Majority of the study subjects 56.7 percent had urban background prior to their entry to the colleges, with the rest being from rural. The married respondents account only 20% and those who were never married about 63%. With regard to their religion, about were Orthodox Christian 43.3, followed by 33.3% were Protestant, Muslim 13.3% and Catholic 10% percent.

2. Family Background, Partner and Peer Related Characteristics of the Respondents

- ❖ According to the findings 12.2% of the respondents' fathers were educated secondary and above, 40% primary and those 24.4% respondents' fathers were illiterate. Mothers were educated secondary and above 6.7%, where as 40% percent of respondents' mothers were in the primary level and 53.3 were illiterate.
- ❖ Concerning the communication of study subjects with their parents, the respondents were discussing about reproductive health matters better with their mothers (60%) than their fathers (21.1 percent).
- ❖ The study revealed that the majority 80% respondent didn't have any discussion about sexual and reproductive health issues with their boyfriends or husbands.

3. Sexual Experience, Family Planning Knowledge and Practices of the Respondents.

- ❖ According to the finding 47.8% began sexual intercourse before age 18, and the rest did not remember or knew the actual age they started sexual intercourse.
- ❖ Concerning the family planning knowledge of the respondents 92.2 of female students in the study have ever known at least one modern regular contraceptive method. While only 7 students (7.8% of the respondents) never heard about any family planning method in their life time.

- ❖ Accordingly to the finding the accepted contraceptive among the respondents were oral contraceptive pills (9%), injectables (32.8%), condoms (17.9%) and the calendar/rhythm (26.9) were the methods most frequently mentioned by the majority of students.).

4. Histories of Pregnancy and Abortion

- ❖ The study showed that 51(76.1%) of those sexually experienced female students in the study had experienced pregnancy and out of this 42(82%) reported that their pregnancies were unplanned.
- ❖ Concerning the very reason for their unplanned pregnancy 15(35.7%)percent due to miscalculation in calendar method, 9(21.4%) percent condom slippage or rupture, 6 (14.2%)percent never used any method because infrequent sexual intercourse (12.8 percent), and 4(9.5) percent unavailability of contraceptives.

5. Awareness and Knowledge of Emergency Contraceptive

- ❖ In the focus group discussions conducted among female students of both business and economics and social science only five students had ever heard about ECs. The rest vast majority of the discussants were unaware of any modern product which could be taken after unprotected intercourse in order to prevent unplanned pregnancy.
- ❖ The finding of the study also disclosed that a great majority (50%) of the respondents got information about EC method from female friends, television/radio (17.5), AAU campus (clinic 12.5) and reproductive health clubs (10%)
- ❖ According to the finding only 25 % of the respondents correctly identified 72 hours as the time limit for the method use whereas 42.5% did not know about it completely. Around 12.5% of those who heard about EC were misinformed that EC were effective only when taken within 24 hours of unprotected sexual intercourse and immediately after sex which might inhibit someone who could still prevent pregnancy from taking ECs.
- ❖ On the other hand, the study revealed that 10% of respondents who had heard about EC correctly cited that the drug composition of ECs is similar with the regular contraception but in a high dose of the same hormones.

- ❖ The findings of this study revealed that detail knowledge of EC methods was lacking among female first year student as observed from their responses during the survey and the focus group discussion about correct method of EC, correct time for method use, mechanism of action, effectiveness, drug composition and indications for the use of ECs.

6. Attitude towards Emergency Contraception and Willingness for Future Use

- ❖ Significant number of discussants feared potential long-term side effects that it might cause infertility if used over a long period of time.
- ❖ In contrary, 50% of the respondents worry about that if men knew the existence of the method, they might impose or persuade women to use it regularly and might expose women to STDs including HIV/AIDS. In addition to these concerns, frequent use of EC and its consequences were raised among the focus group discussion participants.
- ❖ The findings of this study revealed that the utilization of EC was too limited as compared with the number of unintended pregnancies 42(82.3 percent) as well as induced abortions 40(90%) occurred among sexually experienced female students.
- ❖ Even though the extent of specific knowledge of EC among first year female students of AAU was found at lower level, the vast majority 40 (75%) of the respondents were not willing to use the method or recommend others in case of need in the future.

7. Challenges in utilizing of EC

- ❖ This finding also disclosed that significant number of first year female AAU 42 (82.3%) highly exposed to unintended pregnancy which paves the way to an induced abortion and its complications.
- ❖ It was also found out during a focus group discussion that the majority of students exaggerated beliefs about side effects, lack of knowledge regarding EC, discomfort with clinic personnel, and lack of awareness of legal rights to family planning services

8. Health Care Providers Perspectives towards EC

- ❖ In this study, even though almost all of the service providers were aware of the concept of EC, the majorities of them were lacking adequate knowledge on the method regimen for the different products and also had no in-service training.
- ❖ Most of the participants of the key informants' interview did not know any service guideline on EC and some also believed that EC is not part of the FP method mix they provide. Majority of them had also a positive attitude towards EC and the enhancement of the service.

5.2. Conclusion

First year students are expected to have greater knowledge of EC than most youth with no or less educational attainment.

- ❖ According to the finding of the study only 44.4 % of the female students have the awareness about EC and of these 17 percent only had good knowledge of EC.
- ❖ Hence it could be concluded that the awareness and precise knowledge of EC among AAU first year female student was by law and this would affect their lives.
- ❖ According of the study majority of respondents lack of adequate knowledge on the method among most of the female students in this study suggests that the situation is more likely to be the worst for majority of young adults with no or less educational attainment.
- ❖ The study revealed that there was lack of adequate knowledge of EC among the respondent female first year students at AAU. Therefore it could be concluded that there is a potential threat of unwanted pregnancies among them.
- ❖ The study should that professional health service provides at the AAU also lacked adequate knowledge of EC regimens. Hence, one can safely conclude that regular first year female students didn't get adequate and proper orientation from the health service providers of the university.

5.3. Recommendations

Based on the findings of this study and the experiences of some other countries the following recommendations are forwarded.

- 1) As the finding of this study suggest the female students' awareness on EC is by far less than the figure among South West Nigerian first year female university students (75.7 percent) (Arowojolu & Adekunle, 2000). Therefore, strategies and programs should be specifically designed to provide appropriate information and access to EC should be improved in the country in general and in first year regular female university students in particular to enhance the appropriate awareness of EC among young adults.
- 2) It is observed that a very wide difference between this study finding on first year female students' awareness on EC and findings from countries where there are a school sex educational programs, for instance (98%) of Princeton University students had sex education (Ellerston, 1995). Hence the responsible bodies of the FDRE also think of design sex education programs at higher institution levels.
- 3) The study result indicated that discussion within female friends about sexual matters has significant role in the promotion of modern contraception in general and emergency contraception in particular. In Kenya the well-informed students had heard of the method through peer counselor training too (Muia et al, 2000). Thus, the academic institutions and those organizations working on RH matters should work on the promotion and enhancement of peer education or counseling among first year female students of AAU.
- 4) Besides the role of peer counseling and education, the media have a significant role in the dissemination of appropriate information about FP methods as stated in this study and also a study in South West Nigeria by Arowojolu & Adekunle, (2000). Therefore, interventions aiming at adolescents' RH issues including EC should use different media as the main means to broadcast appropriate information and address the target population.
- 5) Since, because condoms are the only contraceptive method available that also protects against the transmission of HIV and other sexually transmitted diseases, efforts at counseling and education need to teach skills for proper condom use, to reduce the

likelihood of failure particularly for university students and generally for the other youth group.

- 6) Some studies done in USA also indicated, knowledge of emergency contraception among providers increased by 53 percent; which was 13.2 percent prior to the implementation of training programs of emergency contraception for providers and students (Gold et al, 2004). Therefore, there is also a need for an intervention of building providers' capacity through in-service and pre- service trainings with emphasis on methods regimen available for different products and enhancement of their skill of teaching and counseling of students according to the method guideline.
- 7) Use of EC among participants of this study is by far more than findings of studies done in communities where awareness for EC is widespread and service is widely available, 31.4 percent among university students in Lothian, South-east Scotland (Anna et al, 1996 in Amaha & Nebreed, 2006). Hence, there should be an intervention designed to expand service availability particularly at university level and advance provision of dedicated ECs for potential clients especially for university student.

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Appendices

ADDIS ABEBA UNIVERSITY

College of education and behavioral studies

Department of curriculum and teacher

Professional development studies

**Appendix 6.I. Questionnaire for assessing the practice and challenges of utilizing
emergency contraceptive first year regular female student.**

Dear respondent I am conducting a survey to assess the practices and challenge of contraceptives particularly ECs among first year regular female students at Addis Ababa University. The main purpose of the survey is to collect information necessary for developing appropriate Strategies and programs to prevent unwanted /unplanned pregnancies and its consequences. To attain this purpose your honest and genuine participation is very important and highly appreciable. I, therefore, kindly request you to fill this questionnaire as accurately and carefully as possible. Please be assured that all the information gathered will be kept strictly confidential and you do not need to write your name on any of the questionnaire page. Only the researcher has the access of the information and used it for the study purpose only. You have a full right and decision to not respond all the questions or partly.

Thank you in advance for your cooperation!

Instruction; the number indicating your response or write the answer on the space provided

	Question	Responses	Skip to
Section I Socio-demographic back Ground Characteristics of the Respondents			
1	How old are you?	_____	
2	Where did you come from	Urban 1 Rural 2	
3	What is your Religion	Orthodox Christian 1 Muslim 2 Catholic 3 Protestant 4 Other, specify_____	
4	What is your department ?		
5	What is your current marital status?	Never Married 1 Married 2 Divorced 3 Separated 4 Widowed 5 Living with boyfriend 6	
6	Have you ever discuss/ talk about reproductive health issues with your boyfriend/ husband?	Yes 1 No 2	
7	Is your father alive?	Yes 1 No 2	If No go to Q 10
8	If 'Yes' what is the educational status of your father?	Illiterate 1 Primary education 2 Secondary education 3 Above secondary 4	
9	Do you talk/discuss about reproductive health issues with your father?	Yes 1 No 2	
10	Is your mother alive?	Yes 1 No 2	
11	If 'Yes' what is the educational Status of your mother?	Illiterate 1 Primary education 2 Secondary education 3 Above secondary 4	
12	Do you talk/discuss about reproductive health issues with your mother?	Yes 1 No 2	

Section II. Sexual experience and knowledge and practices of contraception

1	Have you ever had sexual intercourse?	Yes 1 No 2	If you no go to Q 4
2	At what age were you had the first sexual intercourse?	16-18 18-27 I do not remember I do not know	
3	How many partners have you ever had for sexual intercourse in your life time?	One 1 Two 2 Three 3 More than three 4 I do not remember 5 I do not know 6	
4	Have you ever heard about Family Planning Methods?	Yes 1 No 2	If you no for Q no 1 go to Q 16
5	If your answer for question 4 is 'Yes', have you ever used contraceptive methods?	Yes 1 No 2	If you no go to Q8
6	If 'Yes', which method have you ever used?	Oral pills 1 IUD 2 Injectables 3 Condoms 4 Norplant 5 Withdrawal 6 Calendar/ Rhythm 7 Other, specify _____	
7	For how many years you use the Regular contraception (duration)?	For less than 1 year 1 For 1 year 2 For more than 1 year (specify)_____	

8	If your answer for question 5 is 'No' what was your reason? (more than one response is possible)	Contraceptive not available 1 Cost of contraceptive not affordable 2 Lack of Knowledge about Contraceptive 3 Partner opposed 4 Religious/moral reasons 5 Fear of side effect 6 Wanted to be pregnant 7 Infrequent sex 8 Had forced sex 9 Other specify _____	
9	Have you ever been pregnant?	Yes 1 No 2	If you no go to Q15
10	If 'Yes' how many times?	-----	
11	Is there a pregnancy which was unplanned?	Yes 1 No 2	
12	If 'Yes', how did you fail to prevent pregnancy?	Forced sexual intercourse 1 Unavailability of contraceptives 2 Calendar method was not correct 3 Contraceptive failure 4 Condom slippage/ broken 5 Forget to take contraception 6 Religious/ moral reasons 7 Infrequent sex 8 Wanted to be pregnant 9 Other, specify _____	
13	Have you ever had induced abortion?	Yes 1 No 2	If No go to Q 16
14	If 'Yes', how many times?	_____	
15	What was the outcome of the pregnancy?	I have never been pregnant 1 Currently pregnant 2 Abortion 3 Live birth 4	
16	Do you intend to use any modern contraceptive method to delay or avoid pregnancy at anytime in the future?	Yes 1 No 2 Not sure	

Section III the practice and challenge about emergency contraception (for all respondents)

1	Is there any method that could be taken to prevent unwanted pregnancy after unprotected sex?	Yes 1 No 2	
2	If 'Yes', mention all the methods you know that could be used to prevent pregnancy after Unprotected pregnancy?	_____ _____ _____	
3	Have you ever heard about emergency contraceptives?	Yes 1 No 2	
4	What was your first source of Information?	Television/Radio 1 Magazines/ news papers 2 Relatives 3 Internet webpage 4 From course/formal lecture 5 Boyfriend/partner 6 Female friends 7 Health care providers 8 At AAU campus clinic 9 Reproductive Health clubs 10 Parents 11 Other, specify _____	
5	Of the listed, which can be used as emergency contraception? (More than one response is possible)	combined oral pills Progestin only 1 pills/postinor-II 2 Estrogen only pills 3 IUD 4 Herbal vaginal pessaries 5 Bittermedication,quinine,lemon,potash 6 Monthly inject able 7 Others (Specify) _____ I do not know 8	
6	To prevent pregnancy effectively, how long the first dose of ECPs should be taken after unprotected sexual intercourse?	Immediately after sex 1 Within 24 hours after sex 2 Within 72 hours after sex 3 Within 4-6 days after sex 4 Even after a missed period 5 Don't know 6 Other, specify _____ 7	
7	What is the mechanism of action of EC?	Prevent pregnancy from occurring 1 Induced abortion 2 Prevent pregnancy and induced abortion 3 Don't know 4 other, specify _____	

8	How effective are emergency Contraceptive pills in preventing pregnancy?	Highly effective (99%) Three-fourth (75%) Half (50%) Below one-third (30%) Uncertain Don't Know	1 2 3 4 5 6	
9	In what situations that EC should be taken to prevent pregnancy? (More than one response is possible)	When forced to have sex When condom slipped or broken When there is missed pills When there is failure of contraception When there is infrequent sex When there miscalculation of calendar method Don't know Other (specify) _____	1 2 3 4 5 6 7	
10	Based on the awareness you have about EC, do you believe that you will use EC or recommend others in case of need in the future?	Yes 1 No 2 Not sure		If no go to Q 12
11	If 'Yes', what is your reason to use EC in the future? (More than one response is possible)	It is safer than the regular contraceptives It is more convenient than the regular Contraceptives It is more effective than the regular contraceptives Other reason, specify _____	1 2 3	
12	If 'No', what is your reason to not use EC in the future? (More than one response is possible)	It is against my religion It is not effective It is dangerous to one's health I am using regular contraceptive methods My partner does not like It causes abortion Am worry about STD more than pregnancy Other reason, specify _____	1 2 3 4 5 6 7	
13	EC do you believe that will use EC as regular contraceptive	Yes No Don't know	1 2	
14	EC is necessary to prevent abortion and its complications.	Yes No Don't know	1 2 3	
15	Worry about that if men knew the existence of this method, they may encourage or exert pressure on women to use it and may exposed to STDs (HIV/AIDS).	Yes No Don't know	1 2 3	

16	Have you ever had sexual intercourse without using condom or other contraceptive methods?	Yes No	1 2	
17	If 'Yes', have you ever use EC methods to prevent pregnancy?	Yes No	1 2	If No go to Q 23
18	If 'Yes' for question 18 which method of EC have you used?	Combined oral pills Progestin only pills (postinor-II) 2 Estrogen only pills IUD Post pill Do not remember Other method (specify) _____	1 3 4 5 6	
19	Why did you use it during that time?	Timing was miscalculated Did not use any contraceptive Condom slipped/broken Missed pills Forced to had sex Contraceptive failure Other, specify _____	1 2 3 4 5 6	
20	Who recommended you to use it?	A friend Partner/ boyfriend Health care provider Internet webpage Parents Don't remember Other, specify _____	1 2 3 4 5	
21	Where did you get it?	Public hospitals Private clinics/hospitals Reproductive Health Clinics Privent/Pharmacies AAU/campus clinics Partner/ boy friend Female friends Other, specify _____	1 2 3 4 5 6 7	
22	Do you think available everywhere when you want EC	Yes No	1 2	
23	If your answer for question 17 is 'No' what is your main reason?	I used regular contraceptives correctly and consistently Used safe period correctly Had no enough information about EC Had no access to EC	1 2 3 4	

		Cost of EC is not affordable	5	
		Religious/moral reasons	6	
		Partner oppose	7	
		I have different partner that why I use condom	8	
		Am worry about STD more than pregnancy		
		Other, specify _____		
24	Have you ever had unwanted pregnancy because of not taking EC?	Yes	1	
		No	2	

Appendix 6.2 Focus Group Discussions Guiding Questions for Female regular first year students

Addis Ababa University

College of education and behavioral studies

Department of curriculum and teacher Professional development studies

Adult and life long

1. What do you think about the premarital sex of youth in the present time and their responsibility to prevent unwanted pregnancy and STDs?
2. Do you think any method that could be taken to prevent unwanted pregnancy after unprotected sexual intercourse?
3. Have you ever heard about EC methods?
4. What is your opinion or attitude about the availability of EC in our country?
5. Do you have any concern or questions about EC methods?
6. What do you think is the difference between abortion and EC methods?
7. Who and where should EC be obtained or provided?
8. From what you know about EC do you think that you would ever use/ recommend it to a friend or relatives in case of need?
9. what do you say the of service of EC in AAU clinic ?

Appendix 6.3 Interview guide for pharmacists and nurses of AAU clinic

Addis Ababa University

College of education and behavioral studies

Department of curriculum and teacher Professional development studies

Adult and life long

Dear respondent the purpose of this interview guide is to generate information for the study on assessing the practices and challenges of utilizing emergency contraceptive by first year female undergraduate regular student at AAU

1. Are EC methods and equipment available sufficiently in AAU health service? If so what is your source and how is the continuity of the EC supply?
2. Can you mention the type of EC methods do you have? Which type of EC methods is used mostly?
3. Who provide the service of EC in AAU health service?
4. When does the service of EC provided?
5. Do you provide EC service? Do you take any training on EC? How many of EC service providers are trained in AAU clinic?
6. At what age group does students are belonging? For what reasons that most of students ask for EC?
7. Based on AAU clinic data how many students were provided EC services in average per month?
8. How do you evaluate the student's knowledge regarding EC?
9. Does the AAU health service take any effort to create awareness on EC among first year students? If no why? What should be done to enhance the service?

Declaration

I understand declare that this is my original work and has not been presented for degree in my other university and all sources of material used for the thesis has been duly acknowledged.

Name; **Eden Amdebrhan**

Signature; _____

Date _____

Advisor Approval

This thesis has been submitted job examination with my approval as university advisor.

Name; _____

Signature; _____

Date; _____