ADDIS ABABA UNIVERSITY
COLLEGE OF HEALTH SCIENCES
SCHOOL OF PUBLIC HEALTH

Assessment of Knowledge, Attitude and Utilization of Emergency Contraception among Unmarried Women of Reproductive Age in Adama, Ethiopia

Aman Jima (BSc)

THESIS SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES OF ADDIS ABABA UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIRMENT FOR THE DEGREE OF MASTERS OF PUBLIC HEALTH IN REPRODUCTIVE HEALTH (MPH/RH)

Addis Ababa University

Addis Ababa, Ethiopia

May, 2012

Addis Ababa University

College of Health Sciences School of Public Health

Assessment of Knowledge, Attitude and Utilization of Emergency Contraception among Unmarried Women of Reproductive age in Adama, Ethiopia

Approved by the Examining Board

Dr. Jemal Haider _____

(Chairman, School of Public Health Academic Commission)

Ababi Zergaw (BSc, MPH, PhD)

_____ _____

Advisor

Dr. Mulugeta Betre _____

Examiner

Dr. Zegeye H/Mariam _____

Examiner

Acknowledgements

I would like to thank Addis Ababa University, College of Health Sciences, School of Public Health for providing the opportunity to conduct this research.

I would like to pass my gratitude to my advisor Dr. Ababi Zergaw for his unlimited constructive comment and suggestion throughout the study. I would like also to thank the library staffs of the School of Public Health for their valuable support. I would like to pass my deepest gratitude to UNFPA for providing financial support for this project.

My heartfelt thanks and high appreciation also goes to the study participants who were willing to be part of the study without whom this study could not have been completed. My special thank are forwarded to the supervisors and data collectors who committed themselves throughout the study period. Deep gratitude also goes to those involved in supporting in all my research activities.

Finally, my sincere appreciation goes to my family, relatives and friends for their moral & material support/sponsorship and encouragement throughout my study period.

Acronyms

AOR	Adjusted Odds Ratio
COR	Crude Odds Ratio
DHS	Demographic and Health Survey
EC	Emergency Contraception
ECP	Emergency Contraceptive Pills
FGAE	Family Guidance Association of Ethiopia
FHI	Family Health International
FP	Family Planning
IUD	Intrauterine Device
IUCD	Intrauterine Contraceptive Device
OCP	Oral Contraceptive Pills
KAP	Knowledge, Attitude & Practice
RH	Reproductive Health
SES	Socioeconomic Status
SRH	Sexual and Reproductive Health
UNFPA	United Nation Population Fund
WHO	World Health Organization

Table of content **page**

List of tables

Abstract

Background: Unwanted pregnancy and unsafe abortion could be avoided by using contraceptives, including emergency contraceptive even after unprotected sexual intercourse. Many unmarried women are at high risk of unintended pregnancy; they have limited knowledge of contraception and generally lack access to services or do not feel comfortable using these services. Emergency contraception adds important option for helping sexually active unmarried women to avoid unintended pregnancy. Knowledge, attitude and utilization of emergency contraceptives among unmarried women are of paramount importance because of high rates of unwanted pregnancies as well as unsafe abortion.

Objectives: To assess knowledge, attitude and utilization of emergency contraception among unmarried women of reproductive age.

Methods: A cross-sectional community based survey was conducted among 491 unmarried women of reproductive age at Adama Town. Among 14 urban kebeles, one kebele were selected using simple random sampling method. Systematic sampling technique was used to identify the respondents at an interval of every ninth household after the first respondent was identified by simple random sampling method from the first nine households. A pre-tested structured questionnaire was used to collect data. Data analysis was done using chi-square test and binary logistic regression to measure the association between dependent and independent variables.

Result: About 38.7 % of the total unmarried women participated in the study had knowledge of emergency contraception. Of those ever heard of EC 95% mentioned oral pills only and the reminder (5%) mentioned oral pill and intra uterine device. About 61.3% of those ever heard of emergency contraception had positive attitude towards making EC available to all women who need it but only 4.2% respondents reported that they had used emergency contraception previously. Age, educational status, occupation, knowledge of time in menstrual cycle when pregnancy is more likely to occur, experience of sexual intercourse and having discussion on reproductive health are significantly associated with awareness of EC ($p < 0.001$).

Conclusion & recommendations: The study has shown that there is low level of knowledge and practice of emergency contraceptives among urban unmarried women. Therefore, there is a need to emphasize on increasing awareness and accessibility of emergency contraception to all.

Chapter 1 Introduction

1.1. Background

Emergency contraception (EC) refers to contraceptive methods that reduce the chance of pregnancy following unprotected sexual intercourse (11). They are intended for use after sexual intercourse when no contraception is used, when a regular contraceptive method does not work properly (as when a condom breaks or slips or a daily oral contraceptive is missed) or if a woman is sexually assaulted (2). Emergency contraceptive is simple, safe and effective. A woman can take emergency contraceptive pills (ECPs) within 72 hours or more after unprotected intercourse to reduce her risk of becoming pregnant. Recent researches suggest that ECPs are also effective, though less so, if taken within 120 hours of unprotected sexual intercourse (1, 2). Progestin pills are more effective and are associated with fewer side effects than combined emergency contraceptive pills. However, each dose should contain at least 0.75 mg of levonorgestrel (3**).** Another form of emergency contraception is the insertion of a copper IUD by a trained healthcare professional. This is a good option for a woman who wants an IUD as her long term method (1).

Emergency contraception adds important option for helping sexually active unmarried women to avoid unintended pregnancy. Many unmarried women are at high risk of unintended pregnancy; they have limited knowledge of contraception and generally lack access to services or do not feel comfortable using these services. By preventing unintended pregnancy, ECPs can help avert the risks associated with pregnancy and childbearing to the mother and child (2). Nowadays, ECPs have become more available in many developing countries. However, limited awareness and knowledge, as well as limited access, have hindered unmarried and young women in learning about and using ECPs (2). A review of the evidence shows that limited access of unmarried women to emergency contraception is due to lack of awareness of ECPs; barriers to their use of family planning clinics, including embarrassment, lack of familiarity with the clinics, inconvenient clinic hours; fear of a pelvic examination and provider negative attitudes (5).

1.2. Statement of the problem

According to EDHS 2005 about twenty five percent of Ethiopian women of reproductive age (15-49 years) have never been married. Among those never been married the highest proportions (73.3%) were between the age of 15 and 19 years. But the median age at first intercourse for the women age 20-49 years is 16.5 years. The steadily decreasing age of menarche and increasing age of marriage have created a widening window of time for premarital sexual intercourse which may result in unwanted or unintended pregnancies (2). Unintended pregnancies and pregnancies that occur within short intervals and abortions pose serious health risks to unmarried women (7, 8, 9, 10). As a consequence, most of unintended pregnancies end with induced abortion which contributes for high maternal mortality (11).

Global and regional estimates of annual incidence of unsafe abortion and associated mortality in women aged 15–44 years in 2003 shows the incidence rate of 14 per 1000 which accounts for 13% of all maternal deaths worldwide. In eastern Africa the incidence rate is estimated to be 39 per 1000 and accounts for 17% of all maternal deaths. More than half maternal deaths in Africa is due to unsafe abortion that occurs in age below 25 years (11). Therefore, ECPs help reduce the number of unintended pregnancies, as well as the number of abortions and associated maternal deaths. In addition, access to ECPs would enable women to achieve the optimal spacing of three years between births- which has shown to improve the health of both mother and child (13).

Despite increase in promotional activities of modern contraceptive methods among unmarried women the utilization is relatively low. A survey result in Ethiopia indicates, among all reproductive age group only 43.3% of sexually active unmarried women use modern contraceptive methods (15). With regard to emergency contraception 46.5% sexually active unmarried urban women and 8.6% unmarried rural women had awareness. Among those who had awareness very few (1.6%) of sexually active unmarried urban women have ever used EC (16). Similar study among females aged 15-24 years shows only 21% of sexually active unmarried women have awareness of EC and insignificant proportion (0.1%) have ever used it (17). The underutilization of EC among unmarried women implies limited awareness about availability of method and unfavorable or negative perception towards EC.

Thus, understanding the knowledge, attitude and practice of EC among unmarried women 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 at community level. The aim of this study is to examine the knowledge, attitude and utilization of emergency contraception among unmarried women of reproductive age (15-49 years) in Adama town.

Chapter 2 Literature Review

EC should be accessible to all women, especially to women who are in vulnerable. That is, women who have suffered or who are susceptible to the abuse of their sexual and reproductive rights. This may include unmarried women and adolescents; women who have been raped; refugee or displaced women; and HIV positive women. Many of these women have limited access to information regarding their sexuality and reproduction, to sexual and reproductive health services, and to efficient contraceptive methods. In the context of growing poverty women and girls are more exposed to all forms of abuse and sexual violence (18).

Access to appropriate and modern services and products, including a broad range of contraceptive options ensure sexual and reproductive rights, and should be part of national development and health plans. As emergency contraception is the only post-coital method that prevents unwanted pregnancy, access to emergency contraception and information regarding its appropriate use is a sexual and reproductive right of all human beings regardless of age, marital status, socioeconomic status, race, or religion (18, 19). The expansion of access to emergency contraception is closely linked to quality of care and the rights of clients. Emergency contraception is a method that should be included in national guidelines, and health care providers should be up-to-date on the method and promote it as part of their routine service provision. Many health programs and clinics have expanded to offer more comprehensive services, but full integration is often lacking (19).

Sexual and reproductive health (SRH) and rights are influenced by cultural factors, such as socially constructed gender roles, and individual factors, such as sexual behavior and attitudes. Addressing SRH requires a lens which considers cultures and individuals when designing and providing services and addressing socially constructed gender roles. Increasing knowledge and access to emergency contraception depends on communicating effective messages (2, 19). Furthermore, institutions must consider how to make emergency contraception truly accessible and affordable for unmarried women. Access for unmarried women translates into equality in terms of access to opportunities, services, and information. Promotion and information sharing is a first step. However, in order to target young women appropriately, programs should be familiar

with their needs and barriers to accessing services. Institutions must guarantee access and youth-friendly services (2, 18, and 19).

Knowledge, attitude towards use of emergency contraception has paramount importance in order to achieve desired outcome. In developed countries the level of KAP on EC is already higher, but in developing countries it remains lower. A study in California for example, shows nearly 76% of respondents had heard of EC, but awareness was lower among teens. Although teens were the least likely to have heard of EC, those aware of the method were much more likely to use it than were adult women (20). The study in Nepal shows that 97% of female populations of reproductive age are found to have knowledge about Family Planning but only 2% have knowledge about Emergency Contraception and 2% had formal family planning training. The same study indicates about 92% of female populations of reproductive age are enthusiastic to know about EC (21).

Another study in Hong Kong shows 67.0% had heard of emergency contraception while only 10.0% had used emergency contraception before. Sixty-five (33.0%) women claimed that they knew the correct time-frame of using emergency contraceptives, but only 22 (33.8%) of these women answered correctly. One hundred and ten (55.0%) women indicated that the Family Planning Association was the preferred place for obtaining emergency contraceptives. Only 28 (14.0%) of the women were likely to obtain emergency contraceptives from pharmacies, and 17 (8.5%) preferred to purchase them over the counter. In these study younger and nulliparous women, women who had received secondary to tertiary education and unmarried knew about emergency contraception compared with those older and who had received no or primary education. Similarly, younger age-group was more likely to have used emergency contraception than older women (22).

As it has been discussed earlier the main reason for under utilization of emergency contraception is lack of awareness that even affects perception of users as demonstrated in many studies. A recent review of literature from developed and developing countries indicates that awareness is generally low but slowly increasing. For example, a study on utilization in women of slums in India showed only 1.4% i.e., only 20 out of total 1448 married females had ever utilized ECP. ECP utilization was found to be significantly associated with age in women of age group below

35 years as compared to age above 35years. On the contrary, ECP utilization was not significantly associated with socio economic status (SES) though the utilization was high in middle/high (2.9%) as compared to the low SES (1.3%) (23).

A study in Niger Delta of Nigeria among undergraduate female student shows knowledge of emergency contraceptive pills (ECP's), 50.7 % of the total respondents were aware while the other half (49.3%) had not heard of emergency contraceptive pills. Amongst the 304 that were knowledgeable of ECP's, reports of friends/peers as the source of knowledge ranked highest (33.55%) followed by sexual partner/spouse (32.80%) and health facility/personnel (18.42%). Of those respondents that have knowledge of ECP's 42.1% could correctly identify the dosage, but 31.6% had no idea at all dosage while the rest 26.3% gave an incorrect dosage. About two-thirds (64.5%) reported that they had never used them while only about a third (35.53%) reported that they had actually used them (24**).**

The study from Nigeria demonstrated a low level of awareness and practice of emergency contraception among the university students. About one third (38.1%) of the respondents were aware of emergency contraception and 11.5% had ever used or practiced emergency contraception. The commonest source of information was from friends (32.9%) followed by mass media (20.6%) and schools (14.1%). Fifty two (30.1%) of the respondents that know about EC, had correct knowledge of the timing for their use; 4.6% had incorrect knowledge while 65.3% had no knowledge of time as relates to the use of EC. **(**25**).**

Another study in Nigeria on Knowledge and Perception of Emergency Contraception among Female Nigerian Undergraduates shows, thirty-nine percent of respondents reported that they had ever practiced contraception. Fifty-eight percent of respondents had heard of a product that could be used to prevent pregnancy after unprotected intercourse. Sexually active respondents and those who had ever practiced contraception or had studied at the university for 3–6 years were significantly more likely than other respondents to have heard of emergency contraceptives. Of the 510 women who were aware of emergency contraception, only 18% correctly identified 72 hours as the time limit for the method's use. An additional 49% thought that emergency contraceptives were effective only when used within 24 hours of unprotected sex (26*).*

Another study among University students in Kampala shows less than half (45.1%) of the students had ever heard about EC. The main sources of information were friends, the media and school. There was no statistically significant difference between knowledge of EC and age groups in this study (27). In another study in Ghana among urban and rural women shows about 57% had knowledge about emergency contraception and the main sources of information were identified as mass media and health workers. (28). Furthermore, in Ethiopia there are some studies that have been undertaken in different part of the country but most of these studies are conducted among female in tertiary educational institutions. In all studies that were conducted in Ethiopia the knowledge, attitude and practice among university student, attendants of ANC, and post abortion care seekers are low (29, 30, 32,33).

The study in Addis Ababa on KAP among female university students shows, about ten percent of the respondents claimed to have used contraceptive methods other than male condoms by their partners. The most commonly used contraceptive method was pills (44%) followed by injectables (21%). About 43.5% of the students said that they have heard about emergency contraceptives. The main sources of information about emergency contraceptive were the media and friends. Of those who have heard about pills as an emergency contraceptive method, 26.2% could tell the correct timing of administration of pills after the unexpected sexual contact. Moreover, about 53% of the students have positive attitude towards emergency contraceptives. Adjusted for the other variables positive attitude towards emergency contraceptives was significantly higher among followers of Orthodox and Muslim religions compared to Catholic and Protestants and among senior students compared to their juniors. Regarding utilization, only 4.9% respondents reported that they had used emergency contraceptive methods previously (29).

The study in Jimma University showed knowledge about emergency contraception (EC) among respondent, 41.9% ever heard or knew EC; their common sources of information were friends for 36.5%, radio for 22.8% and television for 12.3%. Of those respondents who had heard of emergency contraceptives 24% correctly identified progesterone only pills while 7.4% identified combined oral contraceptive as an emergency contraceptive method. Thirty percent of the respondents correctly identified the recommended 72 hours as the time limit for emergency

contraceptive pills. Twenty seven percent and 26.6% of the respondents identified the recommended doses and the recommended time between doses, respectively (30).

Another study in Mekele University among female student's shows, 58.8% of sexually experienced respondents had ever used at least one type of contraceptive method. The most commonly used contraception method was pills 35(60.3%), followed by injection 21(36.2%) and 20(34.5%) condom. About 44.7 % of the total respondents had ever heard of emergency contraception. Eighty eight percent of those who have ever heard of EC mentioned pills, 3.18% IUD and the remainder 8.76% mentioned injection and implant. The major sources of information were television /radio 34.26%, family/friends 29.08% and 11.95% from schools. One hundred thirty (58.82%) of those who have ever heard of EC pills identified 72 hrs as recommended time limit (31).

Thirty two of sexually experienced respondent or 5.7% of the total respondents had ever used emergency contraceptive method. One hundred ninety (75.7%) of those ever heard of EC had positive attitude towards making EC available to all women who need it. One hundred ninety (75.7%) of these ever heard of EC have an intention to use EC when the need arises. Age of respondent, higher year of study, parental educational level, knowledge of fertile period, having discussion of RH issue and ever had sexual contact had significant association with the awareness of EC. Moreover, urban residence and awareness of contraception had significant association with increased an intention to use EC in the future (31).

Another study in Arbaminch town shows 42.5% of the respondents said that they had heard about emergency contraceptives. Of half 52.6% of those who had heard about EC, 26.4% correctly identified the timing of administration to be within 72 hours. The overall summary index for knowledge indicated that 21.9% had a good knowledge about EC. Controlling for possible confounding effects of other covariates, respondents' residence, religion, year of study in the college, field of study in the college and mothers' educational level were found to be significantly associated with EC knowledge. The likelihood of EC knowledge among respondents of urban backgrounds was 3.93 times higher than those from rural areas. Female

students whose mothers' educational level was above secondary school level were found to have better knowledge about EC than those whose mothers had no formal education (32).

The study in Addis Ababa among women seeking post abortion care shows bout 14.1% of the study subjects know about emergency contraception. About 64% of the respondents gave correct answer to the question asked how ECPs works, saying prevents fertilization from taking place and 10% of them said it causes abortion. The EC sources identified were hospitals 86.4% and public health centers 84.7%. The source of knowledge of emergency contraceptives was identified as 40.8% health institutions, 33.9% friends and relatives, 16.9% through mass media and 8.5% during formal educations. Of post abortion care seekers those who had awareness of EC and practiced it were 3.6% and 87% of ever used were between age group of 15-29 (33).

Another study in Addis Ababa on antenatal client shows only about 10.2% of the study subjects have heard about emergency contraception. Only those who said that they had heard about EC 10.2% were asked the knowledge assessment questions and 56.9% participants answered correctly when to take EC after unprotected sex. The sources of information for emergency contraception for those who have ever heard were identified as 43% health institutions, 33.8% through mass media, 16.9% through formal class and 9% through friends and relatives. Those who have an intention to use EC or recommend it to somebody in need have better awareness compared to those who don't have intention to use EC in the future. Of Antenatal care clients who have awareness about emergency contraception those who have ever used emergency contraception were only 1.9% and 66.7% of them were between age group 20-29. In this study bi-variate analysis shows only secondary school and above education, better economic status and history of induced abortion were found to be significantly associated with emergency contraception awareness (34).

The study in Assela among college students shows that of the total 27.4% have heard about EC. Of those who have heard Source of information about emergency contraceptives were 55.3% from health education given by health workers; from teacher's education in the schools 17.5% and from mass media 13.2%. Of those who have heard about EC 46.9% reported OCPs and 23.7% IUCD were the methods they know used as emergency contraceptive. About 8.6% knows

OCPs is to be used within 72 hours and 1.2% knows IUCD is to be used within 120 hours (5 days) after unprotected sexual intercourse. Majority 434 (52.1%) have positive attitude to ideas making easy access/availing of EC for all females. Five hundred and twenty four (62.9%) have an intention to use EC in the future when need arises. In these study respondents of age 20 years and above, higher level of education, married, Muslim and Other religion, having sexual practice, and parental occupation of Government employee and trader had better awareness as well as positive attitude towards EC and utilization (35).

Another study conducted in Adama University shows, among the girls who had ever been sexually active only 16 % used EC and from those girls who had unprotected sex only 26.7% used EC. EC and pills were the most common methods used (74.2%). However, only 35.5% used EC within the recommended time limit while the remaining 64.5% did not. On bivariate analysis, age, year of study in campus, being married, religion, history of pregnancy, age at first sexual intercourse, previous use of contraceptives, knowledge about EC and attitude towards EC had statistically significant association with EC use. On the multivariable logistic model after adjusting for other covariates, those who had age 20 years and above were 2.4 times more likely use EC compared to those younger. Respondents who had experience of regular contraceptive use were 1.95 times more likely to use EC than other counterparts (36).

Another study in Haromaya University shows only 25.7% had good knowledge of EC. The most frequently mentioned source of information about EC was TV/Radio (44.1%), followed by female friends (16.9%) and healthcare providers (9.6%). The summarized attitudinal index indicates that 76.5 % of the respondents who had ever heard of EC had favorable attitude toward EC. Age was found to be statistically significant predictor of awareness of EC. The result indicated that respondents in age group 20 – 24 were 2.38 times more likely to know EC compared to the reference category. Grade level of the respondents has become significant predictor of knowledge of EC. Those in second years and above classes were 2.89 times more likely to have favorable attitude towards EC compared to respondents at first year level. In relation to this, respondents whose fathers' level of education were secondary and above are 2.74 times more likely to have favorable attitude toward EC than those with primary and below (37).

Therefore, most of the studies in Ethiopia addressing KAP of EC among adolescent were conducted in students of tertiary educational institutions which are thought to have better awareness than general population. In order to understand well the scope of the problem in this segment of population the study needs to be conducted at community level.

Chapter 3 Objectives of the study

3.1 General Objective;

The general objective of this study was to assess knowledge, attitude and utilization of emergency contraception among unmarried women of reproductive age (15-49 years) in Adama Town.

3.2 Specific Objectives

1. To assess the level of Knowledge about emergency contraception among unmarried women of reproductive age in Adama Town
2. To assess attitude of unmarried women of reproductive age groups towards emergency contraception in Adama Town
3. To assess the level of utilization of emergency contraception by unmarried women of reproductive age group in Adama Town
4. To identify factors that affect knowledge, attitude and utilization of emergency contraception among unmarried women of reproductive age group in Adama Town.

Chapter 4 **Methods**

4.1. Study area

The study was conducted in Adama town about 100 KM to southeast of Addis Ababa. in Oromia National Regional State, Ethiopia. Adama is the largest town in Oromia National Regional state located in the east African rift valley. According to the projection from 2007 Ethiopian census total population of the town estimated to be 275,174. The city is currently organized in 18 smaller administrative structures called Kebele, out of which 14 kebeles are urban and the rest are rural. Regarding Health facilities, four public health centers and one public hospital, two NGOs reproductive health clinics, three private hospitals, and 63 private clinics are providing health services in the town, but primary health service coverage is only 60%. The proportion of women of reproductive age group in the region is 22.1% with total fertility rate of 6.2 (15).

4.2. Study design

Cross-sectional community based study was conducted from December 26, 2011 to January 8, 2012 among unmarried women of reproductive age in Adama town.

4.3. Source Population

All women of reproductive age group (15-49 years) living in Adama town were the source population of the study.

4.4. Study Population

Unmarried women of reproductive age group (15-49 years) who fulfill the selection criteria and living within selected kebele of Adama town were the study population.

4.4.1. Inclusion criteria

- Unmarried women of reproductive age who are resident of Adama town for at least six months preceding study period

4.4.2. Exclusion criteria

- Unmarried women of reproductive age who are sick at the time of study

4.5. Sample Size and Sampling Procedure

4.5.1. Sample Size

The sample size was determined using single population proportion formula. Assuming the proportion of unmarried women who are aware of emergency contraception to be 43.5% based on the study conducted among female university students in Addis Ababa (29). In the determination of the sample size 5% marginal error, 95% confidence interval and 30% non response rate were also used. Accordingly, the sample size required was calculated to be 491.

4.5.2. Sampling Procedure

Out of the total of 18 kebeles in the town, four rural kebeles were excluded from the study because they were different in socio-economic and living conditions. Among 14 urban kebeles, one kebele were selected using simple random sampling method. According to the projection from 2007 census the total population of the kebele is estimated to be 22,780 and there are 4745 households. The selection of household were started from the center of kebele to the randomly selected direction, that was East and the first respondent was identified by simple random sampling technique, then systematic sampling technique were used to identify the other respondent at an interval of every ninth household. In circumstances where there are more than one unmarried women of reproductive age in the household only one was selected randomly using simple random sampling and where there was no woman of reproductive age within the selected household, then next household was selected.

4.6. Variables

4.6.1. Dependent Variables

- Knowledge of emergency contraception (Ever heard about EC, methods of EC source of information, time frame for EC to be taken, mechanism of action of EC, indications of EC)
- Attitude towards emergency contraception (who should use EC, and intention to use EC in the future in the need arise)
- Utilization of emergency contraception (use of EC, frequency of use, reason of use, source of services,

4.6.2. Independent Variables

- Socio-demographic (age, religion, ethnic group, educational status, occupation, income)
- Reproductive health characteristics (age at menarche, knowledge of time in menstrual cycle when pregnancy likely to occur, sexual exposure, reason for sexual practice, number of partner, ever been pregnant, number of births, was pregnancy wanted, outcome of pregnancy, communication about RH issues, ever heard about contraceptive methods, ever used and contraceptive, current use of contraceptive)

4.7. Data Collection and quality control

Data were collected using structured questionnaires. The questionnaires were adopted from Resources for Emergency Contraceptive Pill Programming: a toolkit, published by PATH with some modifications. The questionnaire were prepared in English and translated into Amharic. Then, Amharic version questionnaires were translated back to English by different individuals who had a good ability in both languages for consistency. The questionnaires were pretested on 40 subjects who were not included in the study before actual data collection to make necessary modification and no modification was needed. One day training was given to data collector and supervisors on objectives, relevance of the study, confidentiality, respondent right, and informed consent. Data were collected using female nurses experienced in data collection, and checked for completeness and consistency on daily basis by the supervisor and principal investigator.

4.8. Data Analysis

Data were cleaned and entered to the computer using Epi-Info version 3.5.1 statistical software and exported to SPSS version 16.0 and analysis was performed with the same software. The analysis part consisted of descriptive statistics (frequency and cross tabulation) and the association of each independent variable on the dependent variables was tested by chi-square. The association between independent and dependent variable was further tested using binary logistic regression without controlling all the other variables (crude odds ratio). Then, multivariate analyses were done by controlling all other variables (adjusted odds ratio).

4.9. Ethical Consideration

Ethical clearances were obtained from Institutional Review Board of College of Health Sciences, Addis Ababa University and formal letter were written from School of Public Health to Oromia Health Bureau. The Regional Health Bureau in turn wrote formal letter to the Adama Town Administration Health Department. Formal supportive letter were written from Town Administration Health Department to the selected kebele. Verbal consent was obtained from the respondents after explanation of the objective and benefit of the study. Only those who volunteered were included in the study. Strict confidentiality was assured through anonymous recording and coding of questionnaires.

4.10. Dissemination of Result

The final report of the study is presented to Addis Ababa University, College of Health Sciences, School of Public Health. Result of the study is also disseminated to Oromia Health Bureau, Adama Town Health Department, UNFPA (funding agency) and other relevant organizations working around sexual and reproductive health. Additionally, the results of the study will be presented on conferences, workshops and professional journal.

Chapter 5 **RESULT**

5.1. Socio-demographic characteristics of respondents

Out of the 491 sampled unmarried women, 21 questionnaires were excluded because of incompleteness. Complete responses were obtained from a total of 470 respondents yielding a response rate of 95.7%. The respondents socio-demographic characteristics such as; age, religion, ethnic group, educational status, occupation and monthly household income are described in table 1. The age of the respondent ranged from 15 to 35 years with mean age of 19.49 and standard deviation of 3.65 years, and the majority of them 272 (57.9%) were between the age of 15 and 19 years. Two hundred seventy four (58.3%) of the respondents were orthodox Christian followers, and two hundred sixty three (56%) of the study participant were from Oromo ethnic group. Nearly about half, 229(48.7) of the study subject had secondary education, and the majority (64.7%) of the respondent were students.

Table 1: Socio demographic characteristics of unmarried women of reproductive age in Adama town, January 2012

Characteristics		Frequency (N= 470)	Percent
Age	15 - 19 years	272	57.9
	20 - 24 years	148	31.5
	25 – 29 year	42	8.9
	30 +	8	1.7
Religion	Orthodox	274	58.3
	Muslim	88	18.7
	Protestant	96	20.4
	Catholic	12	2.6
Ethnic Group	Oromo	263	56
	Amhara	135	28.7
	Gurage	43	9.1
	Tgray	19	4
	Others	10	2.1
Educational status	Secondary Education	229	48.7
	Primary Education	128	27.2
	Higher Education	95	20.2
	No Education	18	3.8
Occupation	Student	304	64.7
	Private Employee	69	14.7
	Private Business	38	8,1
	Government Employee	26	5.5
	Others (daily laborer, house maid)	33	7
Household monthly income	Less than or equal 500 ETB	168	35.7
	501 – 1000 ETB	128	27.2
	1001 – 1500 ETB	64	13.6
	1501 – 2000 ETB	57	12.1
	More than 2000 ETB	53	11.3

5.2 Reproductive Health Characteristics

Under this section the reproductive health issues such as age at menarche, knowledge of time in menstrual cycle pregnancy likely to occur, sexual experience, age at first sex, reason initiation of sex and number of partner in their life time were considered as background characteristic of the study subjects. As shown on table 2, age at menarche ranged from 10 to 18 years with a mean age of 14.11 and standard deviation of 1.15 year. Two hundred eighty six (60.9%) of the respondents age at menarche were between 12-14 years, 176 (37.4%) of them between 15-18 years and 8 (1.7%) of the respondent their age at menarche were 10-12 years. Two hundred twenty four (47.7%) of the respondents had knowledge of fertile days between two menstrual periods when a woman is more likely to become pregnant if she has sexual intercourse (second and third weeks of the menstrual cycle). On the other hand, a significant proportion of the respondent (52.3%) don't know fertile period in the menstrual cycle and responds as during menstrual cycle, first week of menstrual cycle and do not know.

Out of the total 470 respondents, 166(35.3%) have had sexual intercourse in their life time. The age at first sexual intercourse ranges from 14 to 24 years with a mean age of 17.39, standard deviation of 2.15 years and 134(80.7%) of them start sex before age of 20 years. The main reason for first sexual intercourse were love 142 (85.5%) and due to rape 18 (10.8%). One hundred thirty (78.3%) of sexual experienced respondent reported that they had sexual relation with one partner in their life time.

Table 2: Reproductive health characteristics among unmarried women of reproductive age in Adama town, January 2012

Variable		Frequency	Percent
Age group menarche(n-470)	10 – 11years	8	1.7
	12– 14 years	286	60.9
	15 – 18 years	176	37.4
Knowledge of time Pregnancy likely to occur (n=470)	During menstrual flow	33	7.0
	First week of menstrual cycle	104	22.1
	Second and third week of menses	224	47.7
	Do not know	109	23.2
Ever had sexual intercourse (n=470	No	304	64.7
	Yes	166	35.3
Age at first sex (n=166)	Less than 15 years	4	2.4
	15-19 years	130	78.3
	20-24 years	32	19.3
Reason for sex (n=166)	Rape/forced sex	18	10.8
	Love	142	85.5
	To get advantage from partner	6	3.6
Number of partner (n=166)	One	130	78.3
	Two	32	19.3
	Three and more	4	2.4

Among those who had sexual experience (n=166), 59 (35.5%) of the respondents had been pregnant, out of this 43 (76.3%) of pregnancy were unwanted and 38(64.4%) ended in induced abortion. Out of 38 induced abortion 21 (55.3%) were performed by untrained personnel and only 17 (44.7%) were performed safely in the hospital or clinic (Table 3).

Two hundred sixty two (55.7 %) of the respondents discuss about reproductive health issue particularly about conception and contraception with at least someone else (parent, friends and health works). More than three fourth 207(79%) of those discussed RH issues with their friends, 85(32.4%) of them discussed with their mother and 84(32%) with health workers (table 3).

Table 3: Pregnancy and outcomes of pregnancy among unmarried women of reproductive age in Adama town, January 2012

Characteristics		Frequency	Percent
Ever been pregnant (n= 166)	No	107	64.5
	Yes	59	35.5
Number of pregnancy (n= 59)	1	51	86.4
	2	8	13.6
Number of Births (n= 20)	1	18	90
	2	2	10
Age at first pregnancy (n= 59)	15 – 19	43	72.9
	20 – 23	16	27.1
Pregnancy was wanted (n= 59)	No	45	76.3
	Yes	14	23.7
Outcome of pregnancy (n = 59)	Childbirth	20	33.9
	Induced abortion	38	64.4
	Other	1	1.7
Place of induced abortion (n=38)	Hospital/Clinic	17	44.7
	Local performer	21	55.3
Communication about RH issue (n =470)	Yes	262	55.7
	No	208	44.3
Discussion of RH issue with (n = 262)*	Friends	207	79
	Mother	85	32.4
	Health worker	84	32
	Sister	44	16.8
	Father	27	10.3
	Teacher	9	3.4

***** Sum may exceed the exact number or 100% due to multiple responses.

5.3 Knowledge and utilization of modern contraceptive methods

As shown in table 4, three hundred eighty seven (82.3%) of the total respondents had ever heard at least one form of modern contraceptive method. When asked about specific type modern contraceptive methods 354 (91.5%) mention oral pill and 350 (90.4%) mention injectable. The main source of information were from mass media (TV/Radio) 139(35.9%), followed by formal education 79 (20.4%) and family/friends 75(19.4%).

One hundred twenty three (74%) of those who have practiced sexual intercourse in their life time or 31.8% of those ever heard of any modern contraceptive methods had ever used at least one type of contraceptive method. The most commonly used contraceptive methods were condom 86(69.9%) and oral pill 70(59.9%). The majority (65%) of the respondents who had ever used modern contraceptive has got the service from private pharmacy. Seventy one (57.7%) of the study subjects out of ever used contraceptive was using any modern method of contraception at the time of the study (Table 4).

Table 4: Knowledge and utilization of modern contraceptive methods among unmarried women of reproductive age in Adama town, January 2012

Characteristics		Frequency	Percent
Ever heard about contraceptive methods (n=470)	Yes	387	82.3
	No	83	17.7
Contraceptive methods heard (n=387)*	Oral pill	354	91.5
	Injectables	350	90.4
	IUD	197	50.9
	Condom	303	78.3
	Implant	190	49.1
	Female sterilization	47	12.1
	Male sterilization	24	6.2
Source of information about contraceptive (n=387)	Mass media (TV/Radio)	139	35.9
	Health workers	68	17.6
	Family/friends	75	19.4
	Formal education	79	20.4
	Health institution	26	6.7
Ever used contraceptive (n=387)	No	264	68.2
	Yes	123	31.8
Type of contraceptive ever used (n=123)*	Condom	86	69.9
	Oral pill	70	56.9
	Injectable	23	18.7
Contraceptive supplies obtained from (n=123)	Pharmacy	80	65.0
	Public Health institution	23	18.7
	Private clinic	11	8.9
	FGAE	9	7.3
Using contraceptive methods currently (n=123)	No	52	42.3
	Yes	71	57.7

***** Sum may exceed the exact number or 100% due to multiple responses.

5.4 Knowledge, Attitude & Utilization of Emergency Contraception

This study tries to examine the knowledge, attitude and utilization of emergency contraception among unmarried women, and the details are described in this section. One hundred eighty two (38.7 %) of the total sampled unmarried women had ever heard about emergency contraception. One hundred seventy three (95%) of those ever heard of EC mentioned oral pills only and the reminder (5%) mentioned oral pill and IUD as method of emergency contraception. The major sources of information were from television /radio 82(45.1%) followed by health personnel 48 (26.4%). Of those who have heard about pills as an emergency contraceptive method, 148 (81.3%) identified the correct time of administration of pills after unintended/unprotected sexual intercourse. When asked about how EC works, 175 (96.2%) of those aware of EC mentioned that EC prevents from getting pregnant (Table 5).

To assess their opinion and concern towards EC they were asked the question "to whom EC should be given" with four responses. The response "to all women who need it' were considered as positive attitude and others are considered as negative attitude. Accordingly, 288 (61.3%) of the study participant women had positive attitude towards making EC available to all women who need it. The remainder mentioned to raped victims 99 (21.1%), to young female 67 (14.3%), and to married women only 16 (3.4%). Those who gave a negative response i.e. other than to all women who need it was further asked their reason, most of them mentioned may increase risky behavior 71 (39%) and religious reason (16.5%). Additionally, when asked about intention to use EC in the future if the need arise, the majority (78.9%) of the respondent have an intention to use EC in the future if the need arises and the rest has no intention to use EC in the future. Those who have an intention to use EC when the need arises prefer to get service from public health institution 207 (55.8%), from FGAE 85 (22.9%), from private pharmacy 61 (16.4%), and from private clinic 18 (4.9%) (Table 6).

Table 5: Knowledge of emergency contraception among unmarried women of reproductive age in Adama town, January 2012

Characteristics		Frequency	Percent
Ever heard of EC (n= 470)	No	288	61.3
	Yes	182	38.7
Types of EC ever heard (n=182)	Oral pill only	173	95
	Oral pill and IUD	9	5
Source of information about EC (n= 182)	TV/ Radio	82	45.1
	Health worker	48	26.4
	Family/friends	27	14.8
	Formal education	15	8.2
	Health institution	10	5.5
When to take ECP after unprotected sex (n=182)	Within 72 hrs after sex	148	81.3
	Within 24 hrs after sex	16	8.8
	Immediately after sex	10	5.5
	Within 5 days	3	1.6
	Others (one wk, after missed period, don't know)	5	2.7
How EC works (n=182)	Prevent pregnancy occurrence	175	96.2
	Don't Know	6	3.3
	Induce abortion	1	0.5

Table 6: Attitude of emergency contraception among unmarried women of reproductive age in Adama town, January 2012

Characteristics		Frequency	percent
To whom EC should be given (n=470)	To all women who need it	288	61.3
	To raped victims	99	21.1
	To young female	67	14.3
	To married women only	16	3.4
Reason if not to all women who need it	May increase risky behavior	71	39
(n= 182)	Religious reason	30	16.5
	Fear of side effect	27	14.8
	Propagates HIV/AIDS	26	14.3
	Fear of misuse	19	10.4
	May hurt the fetus in case	9	4.9
	Does not work		
Intention to use EC in future if need arise	Yes	371	78.9
(n= 470)	No	99	21.1
Preferred source of EC (n = 371)	Public health institution	207	55.8
	FGAE	85	22.9
	Pharmacy	61	16.4
	Private Clinic	18	4.9

As shown in Table 7, only 20 (12%) of sexually experienced study subjects or 4.2% of the total respondents reported that they had used emergency contraceptive methods previously. All of those who ever used EC had used oral pills only. Thirteen of them had used only once, 3 twice, 4 three times and more than three times. The main reason for using EC was due to unprotected sexual intercourse or sex without using any contraception method (n =10, 50%), forget to take OCP (n=5, 25%), condom slippage/breakage (n=3, 15%) and rape/forced sex (n= 2 10%). Among those who had used EC, 10 (50%) of the respondent have got the service from pharmacy.

Table 7: Utilization of emergency contraception among unmarried women of reproductive age in Adama town, January 2012

Characteristics		Frequency	Percent
Ever used EC (n=182)	No	162	89
	Yes	20	11
Frequency EC used (n=20)	Once	13	65
	Twice	3	15
	Three times or more	4	20
Reason for using EC (n=20)	Condom slippage	3	15
	Forced sex	2	10
	Not used any contraceptive	10	50
	Forget to take OCP	5	25
Source of EC (n=20)	Pharmacy	10	50
	Public health institution	3	15
	Private clinic	4	20
	FGAE	3	15

5.5 Factors associated with Knowledge, Attitude and Utilization of Emergency Contraception

Cross tabulation and bi-variate analysis was carried out to determine the association of the socio-demographic profiles of respondents with the awareness of EC. The age of respondent's had statistically highly significant association with awareness of EC ($X^{2 =}$ 20.01, df =1, OR = 2.36 (95% CI: 1.62, 3.46), p- value <.001). Educational status and occupation also had statistically highly significant association with awareness of EC with X^2 =61.61, df = 2, p-value < .001 and X^2 = 18.67, df = 2, p-value < .001 respectively. Moreover, household income had statistically significant association with awareness of EC (X^2 = 12.45, df = 4, p-value < .05). Other socio-demographic variables like religion and ethnic group of the respondent had no statistically significant association with the awareness of EC. Furthermore, sexual and reproductive characteristics of the respondent such as; knowledge of time pregnancy likely to occur, having sexual experience, having discussion about RH with parent or friends, ever heard about

contraceptive methods and ever used contraceptive methods are statistically highly significantly associated with awareness of EC (p – value <. 001) (Table 8). This result of chi- square test significance shows that the relationship between dependent and independent variable is a real relationship not by chance. Other variable including; age at first sex, reason for sex, number of partner, ever been pregnant, outcome of pregnancy, and source of information about contraceptive and current use of contraceptive had no statistically significant association with awareness of EC.

Table 8 : Relationship between socio-demographic , reproductive characteristics and knowledge of EC among Unmarried women of reproductive age in Adama, January 2012

Characteristics	Ever heard of EC		X^2	df	OR (95% CI)	P- value
	No	Yes				
Age			20.01	1	2.36 (1.62, 3.46)	< .001
15-19	190	82				
20 +	98	100				
Educational status			61.61	2		< .001
No & Primary education	125	21				
Secondary Education	127	102				
Higher Education	36	59				
Occupation			18.67	2		< .001
Student	180	124				
Gvt. Employee & Private Business	29	35				
Private employee & others	79	23				
Religion			5.31	2		.070
Orthodox	166	108				
Muslim & Catholic	70	30				
Protestant	52	44				
Ethnic Group			5.27	3		.153
Oromo	159	104				
Amhara	83	52				
Gurage	32	11				
Tgray & Others	14	15				
Income Category			12.45	4		.014
< or = 500 ETB	119	49				
501 – 1000 ETB	72	56				
1001 – 1500 ETB	31	33				
1501 – 2000 ETB	35	22				
More than 2000 ETB	31	22				
Knowledge of time pregnancy likely to occur			42.38	2		< .001
First week of menstrual cycle	59	45				
Second & third week of menses	111	113				
During menstrual flow & Do not know	118	24				
Ever had sexual intercourse			55.84	1	4.46 (2.98, 6.68)	<.001
No	224	80				
Yes	64	102				
Communication about RH issue			72.12	1	6.01 (3.90, 9.28)	< .001
No	172	36				
Yes	116	146				
Ever used contraceptive methods			23.48	1	2.96 (1.89, 4.62)	< .001
No	162	102				
Yes	43	80				

Concerning about attitude and utilization of EC bi-variate analysis of this study shows no significant association with any independent variables like, socio – demographic and reproductive characteristics of the respondent. In this study the size of samples with experience in using emergency contraceptive pill was small and analysis cannot be made to determine factors related to the use of emergency contraceptive pill.

In multivariate analysis, the relationship of each of the independent and dependent variables was explained by the crude odds ratio resulted after each individual variable has been fitted in the binary logistic regression without controlling all the other variables. Additionally, to verify the final contribution of each independent variable on the outcome variable controlling the others, the binary logistic regression has been employed to measure strength of association between the independent variables and the dependent variable.

Accordingly, age, educational status and occupation had statistically significant association with the awareness of emergency contraception. Women aged 20 years and above were more likely to have knowledge about emergency contraception than those below 20 years of age Crude OR 2.36 (95% CI: 1.62, 3.46). The same association was seen when adjusted for other variables, adjusted OR 1.97 (95% CI: 1.26, 3.09). Awareness of EC was higher among the respondent with secondary and higher education when compared to those with primary education and no education crude OR 4.78 (95% CI: 2.81, 8.13), and adjusted OR 4.23(95% CI: 2.45, 7.30) for secondary education, crude OR 9.75(95% CI: 5.24, 18.15) and adjusted OR 6.34 (95% CI: 3.29, 12.20) for those with higher education (Table 9).

Government employees and those engaged in private business were more likely to have awareness of EC than private employees and others (house maid, daily laborers) OR 2.36 (95% CI: 1.41, 3.97), and students were four times more likely to have knowledge of EC than private employees OR 4.14 (95% CI: 2.10, 8.15). However, when adjusted for other variable the association were not the same, but it had statistical significance with p-value 0.020 and 0.036 respectively with adjusted OR 1.99 (95% CI: 1.11, 3.56) and 2.22 (95% CI: 1.05, 4.72). Other

socio-demographic variables like, Religion, Ethnic group and household income had no association with awareness of EC in this study (Table 9).

Table 9: Relationship between socio-demographic characteristics and knowledge of emergency contraception among unmarried women of reproductive age in Adama, January 2012

Variables	Awareness of EC		COR (CI: 95%)	AOR (CI : 95%)
	Yes	NO		
Age				
15-19	82	190	1.00	1.00
20+	100	98	2.36(1.62, 3.46)**	1.97(1.26, 3.09)**
Educational status				
No & primary education	21	125	1.00	1.00
Secondary education	102	127	4.78(2.81, 8.13)**	4.23 (2.45, 7.30)**
Higher education	59	36	9.76(5.24, 18.15)**	6.340(3.29, 12.20)**
Occupation				
Student	124	180	2.36 (1.41, 3.97)**	1.99(1.11,3.56)*
Government employee & Private business	35	29	4.14 (2.1, 8,15)**	2.22(1.05, 4.72)*
Private employee & Others	23	79	1.00	1.00
Religion				
Orthodox	108	166	1.00	1.00
Muslim & Catholic	30	70	0.77(0.48, 1.23)	0.73(0.42, 1.27)
Protestant	44	52	0.51(0.28, .91)	1.34 (0.79, 2. 26)
Ethnic group				
Oromo	104	159	1.00	1.00
Amhara	52	83	0.96 (0.63, 1.47)	0.91 (0.56, 1.49)
Gurage & Others	26	46	0.86 (0.50, 1.48)	0.86 (0.48, 1.53)

Respondents who mentioned correctly the fertile period in menstrual cycle that is the 2nd and 3rd week of the menstrual cycle had better awareness of EC than those mentioned the incorrect time with COR 5.01 (95% CI: 3.00, 8.34) and adjusted OR 2.96 (95% CI: 1.63, 5.39). Similarly, those who mentioned first week of menstrual cycle had awareness of EC than those who mention during menstrual flow and those who responds as they don't know fertile period crude OR 3.75 (95% CI: 2.09, 6.74) and adjusted OR 2.81 (95% CI: 1.42, 5.57). Having experience of sexual intercourse was significantly associated with awareness of EC. Those who ever had sexual intercourse were more likely to have knowledge of EC than those who never had sexual intercourse (crude OR 4.46 (95% CI 2.98, 6.68) and adjusted OR 2.81 (95% CI: 1.32, 6.04).

EC awareness was higher among those who had discussion of RH issue than never had discussion crude OR 6.01 (95% CI: 3.89, 9.28) and adjusted OR 3.27 (95% CI 1.95, 5.48) .

Ever became pregnant, number of pregnancy and number of partners had no relation in awareness, utilization, and attitude of emergency contraception. Ever used of any contraceptive methods were significantly associated with awareness of EC crude OR 2.95 (95% CI 1.89, 4.61) (Table 10).

Table 10: Relationship between reproductive characteristics and knowledge of emergency contraception among unmarried women of reproductive age in Adama town, January 2012

Variables	Awareness of EC		COR (CI: 95%)	AOR (CI: 95%
	Yes	No		
Knowledge of time pregnancy can occur				
First week of menstrual cycle	45	59	3.75 (2.09, 6.74)**	2.81 (1.42, 5.57)*
Second and third week of menses	113	111	5.01 (3.00, 8.34)**	2.96 (1.63, 5.39)**
During menstrual flow & I don't know	24	118	1.00	1.00
Ever had sexual intercourse				
NO	80	224	1.00	1.00
Yes	102	60	4.46 (2.98, 6.68)**	2.81 (1.32, 6.01)*
Discussion RH issues				
NO	36	172	1.00	1.00
Yes	146	116	6.01 (3.89, 9.28)**	3.27 (1.95, 5.48)**
Ever used any contraceptive methods				
NO	102	162	1.00	1.00
Yes	80	43	2.95 (1.89, 4.61)**	1.39 (0.61, 3.19)
Information Source of contraceptive				
Mass media(TV/Radio)	58	81	0.514 (0.293, 0.899)	0.52 (0.28, 0.97)
Health worker/Institution	48	46	0.749 (0.410, 1.368)	0.35 (0.17, 0.72)
Family/Friends	30	45	0.478 (0.251, 0.910)	0.33 (0.16, 0.69)
Formal education	46	33	1.00	1.00

* Statistically significant (p-value <0.05)

** Statistically highly significant (p-value < 0.001)

COR –crude odds ratio

AOR- adjusted odds ratio

Attitude towards emergency contraception was assessed by asking the respondent "to whom EC should be given?" The question has four alternative responses; to all women who need it, to married women only, to young female and to raped victim. The first response "to all women who need it" was considered as positive attitude and others are negative attitude. Accordingly, the data variable was recorded as positive and negative attitude and analysis were done. The result shows there on no statistically significant association between attitude and independent variables like; age, educational status, occupation, ethnic group, knowledge of fertile period, age at first intercourse, reason for initiation of sex, communication on RH issues and ever used any contraceptive methods (Table 11).

Furthermore, socio- demographic characteristics such as age, educational status, occupation and religion had no significant relationship with the utilization of emergency contraceptive. Similarly, sexual and reproductive characteristics of the respondent like knowledge of fertile period in menstrual cycle, age at first sexual intercourse, reason for initiation of sexual intercourse, communication about RH with someone else and ever used any contraceptive methods previously had no statistically significant association with use of emergency contraceptive.

Table 11: Relationship between socio-demographic, reproductive characteristics of the respondent and attitude of emergency contraception among unmarried women of reproductive age in Adama town, January 2012

Variables	Attitude		Crude OR (CI: 95%)	AOR (CI: 95%)
	+ ve	- ve		
Age				
15-19	158	114	1.00	1.00
20+	130	68	0.73 (0.50, 1.06)	0.76 (0.50, 1.15
Educational status				
No & primary education	86	60	1.00	1.00
Secondary education	143	86	0.86 (0.56, 1.32)	0.87 (0.56, 1.36)
Higher education	59	36	0.88 (0.52, 1.49)	1,04 (0.58, 1.85)
Occupation				
Student	183	121	0.98 (0.62, 1.56)	0.95(0.59, 1.54)
Government employee & Private business	44	20	0.68 (0.35, 1.31)	0.74 (0.37, 1.48)
Private employee & Others	61	41	1.00	1.00
Ethnic group				
Oromo	161	102	1.00	1.00
Amhara	87	48	0.87 (0.57, 1.34)	0.90 (0.58, 1.30)
Gurage & Others	40	32	1.26 (0.75, 2.14)	1.30 (0.76, 2.21)
Knowledge of time pregnancy can occur				
During menstrual flow	11	22	0.41 (0.18, 0.94)	0.33 (0.04, 2.90)
First week of menstrual cycle	57	47	0.17(0.08, 0.37)	0.20 (0.05, 0.59)
Second and third week of menses	167	57	0.53 (0.23, 1.19)	0.08 (0.03, 0.23)
I don't know	53	56	1.00	1.00
Communication on RH issue				
No	111	97	1.00	1.00
Yes	177	85	0.55 (0.38, 0.80)	1.20 (0.49, 2.95)
Ever used any contraceptive methods				
NO	161	103	1.00	1.00
Yes	83	40	0.75 (0.48, 1.18)	1.24 (0.48, 3.18)

Chapter 6 Discussion

Although EC is not recommended as routine family planning method, it plays a vital role in preventing unwanted pregnancies after unplanned or unprotected sexual intercourse and would serve as a back up to other family planning methods. This study has tried to show the knowledge, attitude and utilization of emergency contraception among unmarried women of reproductive age group in Adma town. It demonstrated low awareness but higher level of positive attitude and very low utilization of emergency contraception.

Age at menarche ranged from 10 to 18 years with a mean age of 14.11 years and more than 62.6% were below15 years at the time menarche. This wide gap of age for the first menstrual period could be due to socio demographic differences such as better living standard leading to early growth of the girls and menstrual period could start earlier. Knowledge about fertile period in the menstrual cycle was poor. Less than fifty percent of the total respondents mentioned that a woman likely become pregnant with in 2-3 weeks of the menstrual cycle and if they had sexual contact the chance of unwanted pregnancy could be higher. This finding was in agreement with a study conducted among University students in Mekele (31).

Out of the total 470 respondents 166(35.3%) have ever had sexual experience. The age at first sexual contact ranges from 14 to 24 years with a mean age of 17.39 ±2.148. The prevalence of sexual relationship was lower than the results of University students in Kampala, Nigerian undergraduate students where 42% and 43%of the students had sexual experience respectively (26, 27). The low sexual relationship prevalence could be due to the fact that, the respondents might not express their real history because they considered that premarital sex is not socially accepted norm. The result of this study was higher than the findings among female university students in Addis Ababa and Mekele where 19.5 % and 17.3% had ever had sexual experience (29, 31).

Out of total sexually experienced respondent 18 (10.8%) of them their first sexual contact did result from rape. This finding is higher than the findings of the study among undergraduate students at Mekele University (8.2%) and lower than study in Asella among college students

which was 49% (31, 35). The deference in prevalence of forced sex could be due to difference in socio- demographic characteristics of the respondents. Eighty five (85.5%) of those who had sexual experience stated their reasons to have sex was due to love and the remaining 3.6% were mentioned to get advantage from partner. Among sexually experienced respondents 59 (35.5%) had become pregnant at least once and out of which 45 (76.3%) pregnancy were unwanted. This finding is higher than other similar studies in Addis Ababa among University students, Mekele and Asella, where 73.5%, 60.9% and 52.1% respectively were unwanted pregnancies (29, 31, 35). Moreover, among the total study participants, the prevalence of unwanted pregnancy was 9.6%, which is higher than reported by the study conducted in Addis Ababa (29). The prevalence of induced abortion in this study was 8.1%. The result was relatively higher when compared to a study done among Addis Ababa university students, which were 4.9% (29). This deference could be due to difference in level of awareness about human reproductive process specifically knowledge of fertile period in the menstrual cycle.

Seventy four percent (74%) of sexually experienced respondents or 26.1% of the total respondents had ever used at least one type of contraceptive method. This result was higher than the study done among Female University students in Addis Ababa and Mekele where 10.1% and 10.3% of the total respondents ever used contraception (29, 31) and this deference could be due to deference prevalence of sexual relationship in these universities and the community. But the result of this study was less than the study result of Nigerian undergraduate female students where 39% of the respondents had practiced contraception (26). This could be related to the difference in prevalence of sexual relationship. This indicated that the utilization of contraception among the respondents in this study was very low but the prevalence of sexual intercourse higher and it could lead to unwanted pregnancy which may result in induced abortion with its complications.

In this study the most commonly used contraception method other than male condom was Oral pill 70(59.9%) followed by injection 23(18.7 %). This is slightly higher from the study done among female University students in Addis Ababa (44% pill and 21% Injection) and similar to Mekele where 60.3% and 36.2 % used pill and injections respectively. This result was also different from studies done in Nigerian female undergraduate students where 45% and 26% of

respondents used withdrawal and condoms respectively, in Kampala condom 48, 9% and coitus interrupts 23.4% were the common contraception method used by the students (26, 27, 29, and 31). In this study condoms were also used by 86(69%) of sexually experienced respondent, but it is not used for comparison in this discussion because it considered as used in conjunction with other methods. The majority, 80(65.8%) of those ever used contraceptive get the service from pharmacy. This may indicate that making available contraception at pharmacies could increase access to contraceptive at any time when needed. Moreover, empowering pharmacy personnel on effective family planning counseling may be equally helpful in making EC more accessible for those who need to purchase without prescription.

From the total study participants, one hundred eighty two (38.7 %) had ever heard of emergency contraception. This result lower than the study done among Female University Students in Addis Ababa (43.5%), Mekele University (44.7%) and Kampala University where 45% of respondents had heard of EC and it was also lower than a study conducted among Nigerian undergraduate students where 58% of respondents had heard of EC (26,27, 29, 31). But the awareness of EC in this study was higher than studies conducted at Asella colleges where 27.4% were aware of EC (35). This finding also indicated nearly about three times higher than the study finding among post abortion care seeking women and four times higher than the study among antenatal clients in Addis Ababa health institutions where 14% and 10.2% were aware of EC respectively (33, 34). This great discrepancy could be due to the socio demographic difference of the respondents such as the age, occupation, educational status and marital status of the respondents.

The major sources of information for EC were television/radio these sources had similarity to the information sources in Kampala, Ghana, in Mekele University and Addis Ababa University (27, 28, 29, 31). Next to mass media health workers were the second main sources of information in this study, but in others studies family/ friends were the second main source of information about EC. These differences could be due to socio-demographic differences such as educational status, occupation and age. In addition to above sources schools were also important sources of information in this study. This could be very important indication that high media coverage, discussion with family/friends could increase the knowledge family planning not only for the young people but also to the general population.

The knowledge of correct timing for emergency contraception was better than the other studies. Of those had ever heard of ECPs, eighty one percent correctly identified 72 hrs as recommended time frame limit to start the first dose of ECPs after unprotected sexual intercourse and this result was higher than in any of the studies conducted in those Nigerian undergraduate female students, Hong Kong, Mekele university students, Female University Students in Addis Ababa, Jimma university and Asella colleges and Addis Ababa antenatal clients (22, 25, 26, 29, 30, 31, 34, 35). Although higher proportion of respondents identified the time limit, still the proportion of respondents who didn't know the correct time limit is not negligible, near to 19% of those ever heard of ECP mentioned 24 hours and immediately after sex as the correct time limit to start the first dose of ECPs after unprotected sexual intercourse. Such misinformation could inhibit from taking EC, because they thought that they had missed the time frame. Some respondents mentioned that ECP could be taken within one week after unprotected sexual contact and after cessation of menses. This could also lead to delay in taking emergency contraception which leads to increase the risk of unwanted pregnancy. This indicated that, there is need to work hard in this area in order to improve the knowledge and utilization of EC among adolescents and unmarried women.

Out of those aware about EC 175 (96.2%) mentioned EC prevents pregnancy from occurring, the rest mentioned that they don't know and interrupt an ongoing pregnancy. This is encouraging since it shows almost all of them who are aware of EC had correct information about mechanism of action. In other studies the result was lower (29, 30, 31, 34, 35) indicating misconception that could affect attitude and utilization. This perception could be a barrier for the utilization of EC by the women who need it.

In this study, bi-variate and multivariate analysis identifies factors that are associated with knowledge of emergency contraception. Therefore, awareness of EC remained higher for the respondent aged 20 years and above compared to their younger with Adjusted OR 2.04(1.31, 3.19).. This result had similarity with study done in Mekele University, Adama University, Haromaya University and Asella College female students (31, 35, 36, and 37). Educational status were significantly associated with awareness of EC in this study i.e. those who had secondary

education or above had better awareness than those with no education and primary education. In others studies this had similar findings that is as the level of education increases awareness also higher (31, 35, 36, 37).

Other socio-demographic variable that had significant association with awareness of EC in this study is occupation of the respondent. Government employees, private business owners and students had better awareness than those classified as private employees and others. But this is not shown in other studies. The significance seen in this study could be due deference in occupation among study subjects.

Correct knowledge of about fertile period in menstrual cycle and ever had discussion about RH issues had highly significant association with awareness of emergency contraception. This finding is similar with the result of the study among Mekele University students (31). So creating a floor for convenient way of discussion may increase the awareness and utilization of contraception methods including emergency contraception and it could prevent unwanted pregnancy and its consequences. Furthermore, in this study ever had sexual intercourse and ever used any modern contraceptive methods had significant association with awareness of EC.

Two hundred eighty eight (61.3%) of the total respondent had positive attitude towards making EC available to all women who need it and 371 (78.9%) have an intention to use EC in the future when the need arises. Respondents in this study had better attitude towards EC when compared to study in Addis Ababa Unversity students (52.6%) and Asella college students where 52% had positive attitude towards making EC available to all women who need it and 63 % of the students had an intention to use EC in the future (35). But it is lower than the studies among university students in Mekele and Haromaya where 75.5% and 76.5% of the respondent had positive attitude towards emergency contraception (31, 37). The difference in attitude could be due to difference in educational status and occupation.

The utilization EC were lower than the other studies in Ethiopia, (Mekele University 5.7%, AA University students 4.9%, Jimma University 6.8%), 4% of the total respondents had ever used emergency contraceptive method (29, 30, 31). This result was also higher than female college

students in Asella where 2.4%, 3.6% of women seeking post abortion care services in Addis Ababa and 1.9% of antenatal client in Addis Ababa had ever used EC (33, 35). But it was very low when we compared to the studies in Gahana 41%, Hong Kong 12.9%, and Kampala 7.4% (22, 27, and 28). This could be related to the higher prevalence of sexual relationship at early age than our country.

In this study the size of samples with experience in using emergency contraceptive pill was small and analysis cannot be made to determine factors related to the use of emergency contraceptive pill. But other study shows significant association between age of respondent and utilization of EC, ever used of regular contraceptive and utilization of EC (31, 35, 36, and 37). The deference in the result of this study from other studies could be due to variation in methodology and related to the general awareness of any modern contraceptive methods.

Chapter 7 Strength and Limitation of the study

7.1 Strength

- All unmarried women of different socio-demographic characteristics within the community were included in the study.
- All the data collectors deployed were experienced in data collection and had health background that helps in obtaining reliable data and ensure confidentiality.

7.2Limitation

- Self-reported information is subjected to reporting errors and biases. Since the study touches sensitive issues the possibility of underestimation cannot be excluded even though the survey was anonymous.
- The study is not supplemented by qualitative data

Chapter 8 Conclusion

In this study knowledge of modern contraceptive methods were high, but utilization is relatively lower, less than one third ever used any modern contraceptive methods. Awareness of emergency contraception in this study was low, but positive attitude towards EC was high. Positive attitude of the respondents could be an indication of created conducive environment for possible interventions. The knowledge of correct timing for emergency contraception was higher than the studies done in other parts of Ethiopia but still higher proportion of respondents didn't know the correct time for the first dose of emergency contraception. Mass Medias, health workers, family/friends and formal education were found to be the major sources of information for regular contraceptive and emergency contraception. Despite current level of awareness, the utilization of emergency contraception was relatively very low, only 4% of the total respondent had ever used emergency contraception in the past. This may increase the risk of unintended pregnancy which may result in induced abortion among unmarried women of reproductive age group.

Chapter 9 **Recommendation**

- There is a need to raise awareness of the community about emergency contraceptive as an option with other contraceptive method.
- There is need to create encouraging environment for the unmarried women to be able discuss sexual and RH issues with their parents friends and others.
- As the rate of unintended sexual intercourse and unwanted pregnancy were high, emergency contraception should be given a considerable attention in family planning counseling to solve short coming problems of females.
- Further research on knowledge & attitude of all females on emergency contraception and utilization could be important to strengthen the service.

References

1. World Health Organization Department of Reproductive Health and Research (WHO/RHR) and Johns Hopkins Bloomberg School of Public Health/ Center for Communication Programs (CCP), INFO Project. Family Planning: A Global Handbook for Providers. Baltimore and Geneva: CCP and WHO, 2007.
2. Family Health International, Adolescents and Emergency Contraceptive Pills in Developing Countries FHI Working Paper Series No. WP05–01, 2005
3. Population Council, Emergency Contraceptive Pills, South East Asia Regional Training Manual, 2005
4. World Health Organization, Medical eligibility criteria for contraceptive use – 4th ed, 2009
5. International Consortium for Emergency Contraception (ICEC). Expanding Global Access to Emergency Contraception. Seattle, WA: ICEC, 2000. Available at: http://www.cecinfo.org/html/res-downloadable-mtrls.htm#materials
6. Summary and Statistical Report of the 2007 Population and Housing Census Results. Population Size by Age and Sex, Federal Democratic Republic of Ethiopia Population Census Commission, December 2008, Addis Ababa
7. World Health Organization, Maternal mortality in 2005: estimates developed by WHO, UNICEF, UNFPA, and the World Bank, 2007
8. World Health Organization, Beyond the numbers: reviewing maternal deaths and complications to make pregnancy safer, 2004
9. Moore, Zhuzhi, Pav Govindasamy, Julie DaVanzo, Genene Bizuneh, and Albert Themme. 2008. Trends in Youth Reproductive Health in Ethiopia, 2000 and 2005. Calverton, Maryland: Macro International Inc
10. United Nations Children's Fund, The State of the World's Children 2011
11. World Health Organization, Unsafe abortion: Global and regional estimates of incidence of unsafe abortion and associated mortality in 2003. -- 5th ed, 2007
12. Senbeto E, Alene G, Abesno N, Yeneneh H, Prevalence and associated risk factors of Induced Abortion in northwest Ethiopia, Ethiop. J. Health Dev. 2005;19 (1) 37-44
13. Program for Appropriate Technology in Health, Resources for Emergency Contraceptive Pill Programming: A Toolkit, 2004

14. Govindasamy P, Kidanu A, Banteyerga H. Youth Reproductive Health in Ethiopia. Calverton, Maryland: ORC Macro, 2002.
15. Central Statistical Agency [Ethiopia] and ORC Macro. 2006. Ethiopia Demographic and Health Survey 2005. Addis Ababa, Ethiopia and Calverton, Maryland, USA: Central Statistical Agency and ORC Macro.
16. United Nations Population Fund, Population Council, Ethiopia Gender Survey: A Study in Seven Regions, 2010
17. United Nations Population Fund, Population Council, Ethiopia Young Adult Survey: A Study in Seven Regions, 2010
18. Latin American Consortium for Emergency Contraception, Emergency Contraception Advocacy In Latin America And The Caribbean, 2005
19. International Planned Parenthood Federation/Western Hemisphere Region, Every Woman's Right: Recommendations for Improving Knowledge and Access to Emergency Contraception,2006
20. Susie B, Solorio R, Donna L, HongjianY, Brown R. Who Is Using Emergency Contraception? Awareness and Use of Emergency Contraception Among California Women and Teens, Women's Health Issues 18 (2008) 360–368
21. Gurung N, Gupta S, Hays B. Knowledge of Family Planning and Emergency Contraception in a Rural Female Population, Journal of GMC-Nepal, 2009; Volume 2, issue 3: 45-50
22. Lee SW, Wai MF, Lai LY, Ho PC. Women's knowledge of and attitudes towards emergency contraception in Hong Kong: questionnaire survey, HKMJ,1999: Vol 5 No 4: 249-252
23. Puri, S, Goe N, Sehgal A, Walia D, Mangat C. Emergency contraception in Women of Slum in Northern India, Journal of Family and Reproductive Health, October 2009 Vol.3 No.3: 77-82
24. Akani C, Enyindah C, Babatunde S. Emergency Contraception: Knowledge and Perception Of Female Undergraduates in the Niger Delta of Nigeria, Ghana Medical Journal,2008, Volume 42, Number 2: 68-70

25. Nworah O, Sunday M, Joseph U, Monday O, Josepahat A. Knowledge, attitude and practice of emergency contraception among students in tertiary schools in Anambra State Southeast Nigeria, International Journal of Medicine and Medical Sciences. 2010; Vol. 2(1): 001-004.
26. Michael E, Patrick I, Adedapo B "Knowledge and Perception on Emergency Contraception among Female Nigerian Undergraduates. "International Family Planning Perspectives, 2003; .29(2): 84-87
27. Byamugusha J, Mirembe F, Faxelid E, Gamzell K. "Emergency contraception and fertility awareness among university students in Kampala, Uganda." Afr Health Sci; 2006, 6(4):194-200
28. Baafuor O, Fauster K, Knowledge and Practices of Emergency Contraception among Ghanaian Women, African Journal of Reproductive Health - June 2011; 15(2): 147- 152
29. Tamire W, Enqueselassie F, Knowledge, attitude, and practice on emergency contraceptives among female university students in Addis Ababa, Ethiopia, [Ethiop. J. Health Dev. 2007;21;(2):111-116]
30. Tajure, N, Knowledge, Attitude and Practice of Emergency Contraception among Graduating Female Students of Jimma University, South West Ethiopia, Ethiop J Health Sci., July 2010 Vol. 20, No. 2: 91- 97
31. G/yohannes E, Assessment of Knowledge, Attitude and Utilization of Emergency Contraception among Mekelle University Female Undergraduate Students, MPH thesis, AAU, 2009
32. Worku A, Emergency Contraceptives: Knowledge, Attitudes and Practices among Female College Students in Arba Minch, Ethiopia, Harar Bulletin of Health Sciences, 2011; 1(3): 11-23
33. . Dessalegn B. An Assessment of Knowledge, Attitude and Practice of Emergency Contraception among women seeking post abortion care services in Addis Ababa, MPH Thesis, AAU,2006
34. Dinku E, Assessment of the Barriers to Emergency Contraception use among Antenatal care clients of Addis Ababa Health Centers, MPH Thesis, AAU, 2007

35. Mengistu S. Assessment of level of awareness and utilization of Emergency Contraception among college female students, in Oromia regional state, Arisi zone, Asella town, south east Ethiopia, MPH thesis, AAU, 2007
36. Dejene F, Assefa T, Belachew T, Predictors of emergency contraceptive use among regular female students at Adama University, Central Ethiopia. The Pan African Medical Journal, 2010, available online at: *http://www.panafrican-med-journal.com/content/article/7/16/full)*
37. Desta, B and Regassa, N , On Emergency Contraception among Female Students of Haramaya University, Ethiopia: Surveying the Level of Knowledge and Attitude, Educational Research (ISSN: 2141-5161) Vol. 2(4) pp. 1106-1117 April 2011, Available online@ *http://www.interesjournals.org/ER*

Annex I. Questionnaire

Addis Ababa University College of Health Sciences School of Public Health

Survey questionnaire on the Knowledge, Attitude and Utilization of EC among Unmarried women of reproductive age in Adama Town

CONSENT FORM

Greeting

My name is----------I am working in a research team (project), which is conducted by Addis Ababa University School of Public Health.

The main purpose of this study is to find out why women aren't using emergency contraceptives and what the barriers to the use are and to get a solution to decrease unplanned pregnancies leading to induced abortions. We are inviting unmarried women of reproductive age group 15-49 years to contribute to this study.

So I would like to ask you some questions about family planning. It would be helpful in identifying problems related to emergency contraception and improve family planning service in the future to meet your need. Your name will not be recorded. All information you give will be kept strictly and you have the right not to respond any question you don't want to.

Yes----------, No----------

Signature of the interviewer certifying that the informed consent has been verbally by respondents----------

Identification

Interviewer name---------- Date of interview in Ethiopian Calendar ----------/----------/-

Checked by Supervisor

Signature ----------

Principal Investigator Name and address

- Name- Aman Jima
- Telephone - +251916820648
- Email address- amanjr2010@ gmail.com

Addis Ababa University

College of Health Sciences

School of Public Health

This questionnaire is designed to assess Knowledge, Attitude, and Level of utilization of emergency contraception among unmarried women of reproductive age. All the respondents are kindly requested to give their response for all questions. Your genuine answer is of paramount importance to the outcome of the research and that all the answers and your identity are kept anonymous. If you need clarification you can communicate with the interviewer.

Thank you in advance!

Instruction: Circle the code number given parallel to the answer you choose and for questions that you give direct answer, write the answer in the space provided.

Part I Socio demographic Characteristics

S.No	Question	Response	Skip
101	How old are you? Age		
102	What is your religion?	1.Orthodox 2.Muslim 3.Protestant 4.Catholic 5.Other specify	
103	What is your ethnic group?	1. Oromo 2. Amhara 3. Tigray 4. Gurage 5. Other Specify	
104	What is your Educational status?	1.who can't read and write 2.who can read and write 3.Primary school(1-8th Grade) 4.Secondary school(9th-12th Grade) 5.Higher education	

105	What is your occupation?	1.Government Employee 2.Private Business 3.Private employee 4. Student 5. Daily laborer 6. Other specify	
106	What is your family's monthly income?	1. <300 birr 2. 300-499 birr 3.500-1000 birr 4.1000-1500 birr 5. >1500 birr	

Part II : Reproductive health related characteristics

S.N	Characteristics	Response	Skip to
201	At what age have you seen your menses for the first time?	Age in completed years_____	
202	If a woman has regular menstrual cycle when do you think pregnancy is most likely to occur?	1.During the menstrual flow 2.the first week of menstrual cycle 3.the second & third week of menses 4.I don't know	
203	Have you ever had sexual intercourse?	1. Yes 2. No	If No skip to 215
204	If yes, at what age did you have the first sexual intercourse?	Age is completed years____	
205	What was the reason for your sexual practice?	1. Rape/forced sex 2. Love 3. To get some advantage from partner 4. Other, specify	

206	How many sexual partners have you ever had in your life time?	1.One 2. Two 3. Three Or more	
207	Have you ever been pregnant?	1. Yes 2. No	
208	If yes, how many times?		
209	How many children have you that were born to you?		
210	At what age was your first pregnancy?	Age in complete years_____	
211	Was your pregnancy wanted?	1. Yes 2. No	If yes skip to 213
212	If your pregnancy is not wanted, how do you fail to prevent the pregnancy?	1.Forced sexual intercourse 2. forget to take pills 3. condom slippage/breakage 4. infrequent sex 5. perceived not to become pregnant 6. others/ specify	
213	What was the outcome of your pregnancy?	1. Childbirth 2. Induced abortion	
214	If the outcome of the pregnancy was induced abortion where did you perform?	1. Hospital/ Clinic 2. Local performer 3. Other specify	
215	Have you had communication about reproductive issues with anyone else?	1. Yes 2. No	
216	If the answer Q215 is yes, with whom did you discussed the issue? (More than one answers possible).	1. Mother 2. Father 3. Sister 4. Friends 5. Health personnel 6. Other specify	

Part: III **knowledge and utilization of contraception**

S.NO	Characteristics	Response	Skip to
301	Have ever heard about any contraceptive method	1. Yes 2. NO	If No skip to 401
302	If yes, which one do you know? (More than one answers possible).	1. Oral pills 2. Injectable 3. IUD 4. Condom 5. Implant 6. Female sterilization 7. Male sterilization 8. Other specify	
303	If yes, what was the source of information?	1. Mass Media(TV, Radio) 2. Health workers 3. Family/friends 4. Formal education 5. Health institution 6. Other specify	
304	Have you ever used any contraceptive method in the past?	1. Yes 2. No	
305	If yes, what type? (more than one answer is possible)	1. Oral pills 2. Injectable 3. IUD 4. Condom 5. Implant 6. Other specify	

306	From where did you get the service?	1. FGAE 2. Public Health Institution 3. Private clinic 4. Pharmacy 5. Others Specify	
307	Are you using contraceptive methods currently?	1. Yes 2. No	

Part IV: **Knowledge, Attitude and Practice of Emergency Contraception**

S.NO	Characteristics	Response	Skip to
401	Is there any method that could be taken to prevent pregnancy after unprotected sex?	1. Yes 2. No	
402	If yes mention all methods that you know		
403	Have you ever heard of about emergency contraceptive?	1. Yes 2. No	If No skip to 415
404	If the answer to Q403 is yes, Which method of emergency contraceptive do you know? (more than one answer possible)	1. Oral pills 2. IUD 3. Others Specify	
405	If the answer to Q403 is yes, What was the source of information?	1. TV/Radio 2. Health workers 3. Family/friends 4. Formal education 5. Health institution 6. Other specify	
406	To Prevent pregnancy within what time frame emergency contraception pill should be taken after unprotected sex?	1. Immediately after sex 2. within 24hrs after sex 3. within 72hrs after sex 4. within 5 days 5. within one week after sex 6. After missed period	

407	To Prevent pregnancy within what time frame IUD should be inserted?	1. Immediately after sex 2. within 24hrs after sex 3. within 72hrs after sex 4. within 5 days 5. within one week after sex 6. After missed period 7. I don't know	
408	What is the mechanism of action of emergency contraceptive?	1. Prevent pregnancy from occurring 2. Induce abortion 3. I don't know	
409	In what situation EC should be taken to prevent pregnancy?(more than one response is possible)	1. when forced sex 2. when condom slippage/broken 3. when there is missed pill 4. when unprotected sex without any contraceptive method 5. others, specify 6. I don't know	
410	Had you ever used of EC?	1. Yes 2. No	If No skip to 415
411	If yes, which method of EC have you used?	1. Oral pills 2. IUD 3. Other specify	
412	If yes, how many times have you used the method?	1. Once 2. Twice 3. Three times 4. More than three times	

413	What was the reason for your using EC?	1. condom slippage 2. forced sex 3. not used any contraceptive 4. forget to take contraceptive pills 5. Other specify	
414	Where did you get the EC?	1. FGAE 2. public health institution 3. private clinics 4. pharmacy 5. Other specify	
415	To whom EC should be given?	1. To all women who need it 2. To married women only 3. To young female 4. To raped victims 5. Other specify	
416	If your answer is other than to all women who need it Why?	1. It may increase risky behavior 2. fear of misuse 3. propagates HIV/AIDS 4. may hurt the fetus in case it does not work 5. fear of side effect 6. religious reasons 7. others, specify	
417	Do you have an intention to use EC in the future if the need arises?	1. Yes 2. No	

418	If you have an intention to use EC in the case of emergency conditions, from where do you prefer to get the service?	1. FGAE 2. Public institution 3. private clinics 4. pharmacy 5. others, specify	

የስምምነት ቅድ

በአዲስ አበባ ዩኒቨርሲቲ ጤና ሳይንሶች ኮሌጅ የህብረተሰብ ጤና ትምህርት ቤት

በድንገተኛ የጽንስ መከላከያ እዉቀት አመለካከትና አጠቃቀም በአዳማ ከተማ የሚገኙ በመዉለድ እድሜ ክልል ያሉና ያላገቡ ሴቶች ላይ ለሚደረግ ጥናት የተዘጋጀ መጠይቅ

የስምምነት ቅጽ

እኔ ስሜ ---------- እባላለሁ፡ እኔ በዚህ ጥናት የምሰራዉ በመረጃ ሰብሳቢነት ነዉ። የዚህ ጥናት አላማ ያላገቡ ሴቶች ለምን ድንገተኛ የጽንስ መከላከያ እንደማይጠቀሙ ለማጥናት፣ ለአጠቃቀም ማነቆ የሆኑ ምክንያቶችን በማወቅ ለችግሩ መፍትሄ በመፈለግ፣ በልተፈለገ እርግዝና ምክንያት የሚከሰት ዉርጃን ለመቀነስ ነዉ። ለዚህም ሁሉንም በመዉለድ እድሜ ክልል የሚገኙ ሴቶች ለጥናቱ የበኩላቸዉን እንጠይቃለን። ስለዚህ ስለ ቤተሰብ ምጣኔ የተወሰኑ ጥያቄዎችን እጠይቅዎታለሁ። በድንገተኛ የጽንስ መከላከያ ዙሪያ ያሉትን ችግሮች በመለየትና የቤተሰብ ምጣኔ አገልግሎትን በማሻሻል የወደፊት ፍላጎትዎን ለማሟላት ይጠቅማል።

ለማረጋገጥ የምንወደዉ የእናንተ ሥም በዚህ ቅጽ መሙላት አያስፈልግም። እንዲሁም ከናንተ የሚሰበሰበዉ ሃሳብና መረጃ ሚስጥርነቱ የተጠበቀ ነዉ። በዚህ ጥናት ጠቅላላ ላላመሳተፍ፣ በከፊል መሳተፍ ወይም በማንኛዉም ጊዜ የማቋረጥ መብታችሁ የተጠበቀ ነዉ።

አመሰግናለሁ!

ለመሳተፍ ፈቃደኛ ነሽ?

1. **አዎ ---------- 2. አይደለሁም ----------**

የመረጃ ሰብሳቢ ፊርማ ተጠያቂዋ ሙሉ ስምምነት በቃል መስጠትዋን ያረጋግጣል

የመረጃ ሰብሳቢ ስም ---------- ፊርማ ---------- ቀን ----------

የተቆጣጣሪ ስምና ፊርማ

ስም ----------ፊርማ ----------

የጥናቱ ዋና ተጠሪ ስምና አድራሻ

- **ስም አማን ጅማ**
- **ስልክ ቁ. +251916820648**
- **ኢ-ሜይል.** amanjr2010@gmail.com

አዲስ አበባ ዩኒቨርሲቲጤና ሳይንሶች ኮሌጅ የሕብረተሰብ ጤና ትምህርት ቤት

ይህ መጠይቅ የተዘጋጀዉ በድንገተኛ ጽንስ መከላከያ ዙሪያ በመዉለድ እድሜ ክልል ያሉ ያላገቡ ሴቶች ያላቸዉን እዉቀት አመለካከትና አጠቃቀም ለማጥናት ነዉ። ሁሉም የተጠየቁትን ጥያቄዎች ሁሉ አንዲመልሱ በትህትና እንጠይቃለን። የእናንተ ቀናነት ለዚህ ጥናት ስኬት በጣም አስፈላጊ ነዉ። ሁሉም የምትሰጡት መረጃና የናንተ ማንነት ሚስጥርነቱ የተጠበቀ ነዉ፡

እናመሰግናለን፣፣

***መመሪያ*-- የተሰጠዉን የመለያ ቁጥር በመክበብና የጽሁፍ መልስ ለሚፈልጉ በተሰጠዉ ቦታ ላይ መልሱን ጻፉ።**

ክፍል አንድ፡ ማህበራዊና ዲሞግራፋዊ መረጃ

ተ.ቁ	ጥያቄዎች	መልስ	ማለፍ
101	እድሜሽ ስንት ነዉ?	_____አመት	
102	ሐይማኖትሽ ምንድነዉ?	1. ኦርቶዶክስ 2. ሙስሊም 3. ፕሮቴስታንት 4. ካቶሊክ 5. ሌላ ካለ ይገለጽ	
103	ብሔርሽ የትኛዉ ነዉ?	1. ኦሮሞ 2. አማራ 3. ትግራይ 4. ጉራጌ 5. ልላ፣ ይገለጽ	
104	የትምህርት ደረጃሽ ምንድነዉ?	1. ማንበብና መጻፍ የማትችል 2. ማንበብና መጻፍ የምትችል 3. የመጀመሪያ ደረጃ ትምህርት (1-8ክፍል) 4. ሁለተኛ ደረጃ (9-12) 5. ከፍተኛ ትምህርት	

105	ስራሽ ምንድነዉ?	1. የመንግስት ሠራተኛ 2. የግል ሥራ (ንግድ) 3. የግል ተቀጣሪ 4. ተማሪ 5. የቀን ሠራተኛ 6. ሌላ፣ ይገለጽ	
106	የቤተሰብሽ ገቢ በወር ምን ያህል ነዉ?	1. ከብር 300 በታች 2. ከብር 300-499 3. ከብር 500-1000 4. ከብር 1000-1500 5. ከብር 1500 በላይ	

ክፍል ሁለት፣ ስነ-ተዋልዶ በተመለከተ

ተ.ቁ	ጥያቄዎች	መልስ	ማለፍ
201	ለመጀመሪያ ጊዜ የወር አበባ በስንት አመትሽ አየሽ?	ዕድሜ በአመት --------	
202	እንዲት ሴት የተስተካከለ የወር አበባ ጊዜ ካላት እርግዝና ሊከሰት የሚችለዉ መቼ ነዉ?	1. በወር አበባ ወቅት 2. የወር አበባ ከጀመራት በአንድ ሳምንት ዉስጥ 3. የወር አበባ ከጀመራት በሁለተኛና ሶስተኛ ሳምንት 4. አላዉቅም	
203	የግብረሥጋ ግንኙነት አድርገሽ ታዉቀያለሽ?	1.. አዎ 2. አይደለም	አይደለም ከሆነ ወደ ቁ 215
204	ለጥያቄ 203 አዎ ከሆነ መልስሽ ለመጀመሪያ ጊዘ የግብረ-ሥጋ ያደረግሺዉ በስንት አመትሽ ነዉ?	እድሜ በአመት ይገለጽ ----------	

205	ለመጀመሪያ ጊዜ የግብረሥጋ ግንኙነት ያደረግሽበት ምክንያት ምን ነበር?	1. አስገድዶ መድፈር 2. ፍቅር 3. ጥቅማጥቅም ለማግኘት 4. ሌላ ይገለጽ	
206	በዕድሜሽ ዉስጥ ከምን ያህል ሰዎች ጋር የግብረሥጋ ግንኙነት አድርገሻል?	1. አንድ 2. ሁለት 3. ሶስትና ከዛ በላይ	
207	አርግዘሽ ተዉቂያለሽ?	1. አዎ 2. አርግዤ አላዉቅም	አላዉቅም ከሆነ ወደ ቁ 215
208	ለጥያቄ 207 መልሰሽ አዎ ከሆነ ስንት ጊዜ አርግዘሻል?		
209	ስንት ልጆች ወልደሻል?		
210	የመጀመሪያ ስታረግዢ እድሜሽ ስንት ነበር?	እድሜ በአመት ይገለጽ	
211	እርግዝናዉን ትፈልጊዉ ነበር?	1. አዎ 2. አይደለም	አዎ ከሆነ ወደ ቁ 213
212	ለጥያቄ 211 ምልስሽ ያልተፈለገ እርግዝና ከሆነ እርግዝናዉን እንዴት መከላከል አልቻልሽም?	1. አስገድዶ መድፈር ስለነበረ 2. የወሊድ መቆጣጠሪያ ኪኒን መርሳት 3. ኮንዶም መቀደድ/መዉለቅ 4. አልፎአልፎ የሚደረግ የግብረስጋ ግንኙነት ስለነበረ 5. አላረግዝም የሚል ሃሳብ ስለነበረኝ 6. ሌላ ካለ ይገለጽ	
213	የእርግዝናዉ የመጨረሻ ዉጤት ምን ነበር?	1. ልጅ ተወለደ 2. እርግዝናዉ እንዲወጣ ተደረገ (ዉርጃ)	

214	የእርግዝናዉ ዉጤት ዉርጃ ከሆነ ዉርጃዉ የተፈጸመዉ የት ነዉ?	1. ክሊኒክ/ሆስፒታል 2. ስፈር ጽንስ በሚያስወርዱ ሰወች 3. ሌላ ከለ ይገለጽ	
215	ስነተዋልዶን በተመለከተ ከሰዎች ጋር ተወያይተሽ ታዉቂያለሽ?	1. አዎ 2. አላዉቅም	
216	ለጥያቄ 215 መልሱ አዎ ከሆነ ከማን ጋር? (ከአንድ በላይ መልስ መስጠት ይቻላል)	1. ከእናት ጋር 2. ከአባት ጋር 3. ከእህት ጋር 4. ከጓደኛ ጋር 5. ከጤና ባለሙያ ጋር 6. ሌላ ካለ ይገለጽ	

ክፍል ሶስት፡ የወሊድ መከላከያ እዉቀትና አጠቃቀም በተመለከተ

ተ.ቁ	ጥያቄዎች	መልስ	ማለፍ
301	ስለ ወሊድ መከላከያ ዘዴዎች ሰምተሽ ታዉቂያለሽ?	1. አዎ 2. አላዉቅም	አላዉቅም ከሆነ ወደ ተ.ቁ 401
302	ለተ.ቁ 301 መልስሽ አዎ ከሆነ የትኛዉን የመከላከያ አይነት ሰምተሽ ታዉቂያለሽ? (ከአንድ በላይ መልስ መስጠት ይቻላል)	1. የሚዋጥ እንክብል 2. በመርፌ የሚሰጥ 3. በማህጸን ዉስጥ የሚቀመጥ 4. ኮንዶም 5. በክንድ ቆዳ ስር የሚቀበር 6. የማህጸን ዘር መተላለፊያ መቋጠር 7. የወንድ ዘር ፍሬ መተላለፊያ መቁረጥ 8. ሌላ ካለ ይገለጽ	

303	ለተ.ቁ 301 መልስሽ አዎ ከሆነ ለመጀመሪያ ጊዜ ከየት ሰማሽ?	1. ከቴሌቪዢን/ሬድዮ 2. ከጤና በላሙያ 3. ከቤተሰብ/ጓደኛ 4. ከመደበኛ ትምህርት 5. ከጤና ተቋም 6. ሌላ ካለ ይገለጽ	
304	የወሊድ መከላከያ ተጠቅመሽ ታዉቂያለሽ?	1. አዎ 2. አላዉቅም	አላዉቅም ከሆነ ወደ ተ.ቁ 401
305	ለተ.ቁ 304 መልሱ አዎ ከሆነ ምን አይነት? (ከአንድ በላይ መልስ መስጠት ይቻላል)	1. የሚዋጥ እንክብል 2. በመርፌ የሚሰጥ 3. በማህጸን ዉስጥ የሚቀመጥ 4. ኮንዶም 5. በክንድ ቆዳ ስር የሚቀበር 6. ሌላ ካለ ይገለጽ	
306	የወሊድ መከላከያ አገልግሎት ከየት ነበር ያገኘሽዉ?	1. ከኢትዮጵያ ቤተሰብ መምሪያ ማህበር 2. ከመንግሥት ጤና ተቋማት 3. ከግል ክሊኒክ 4. ከፋርማሲ 5. ሌላ ካለ ይገለጽ	
307	በአሁኑ ጊዜ የወሊድ መከላከያ ትጠቀሚያለሽ	1. አዎ 2. አልጠቀምም	

ክፍል አራት፡ ድንገተኛ የወሊድ መቆጣጠሪያ እዉቀት፡ አመለካከትና አጠቃቀም

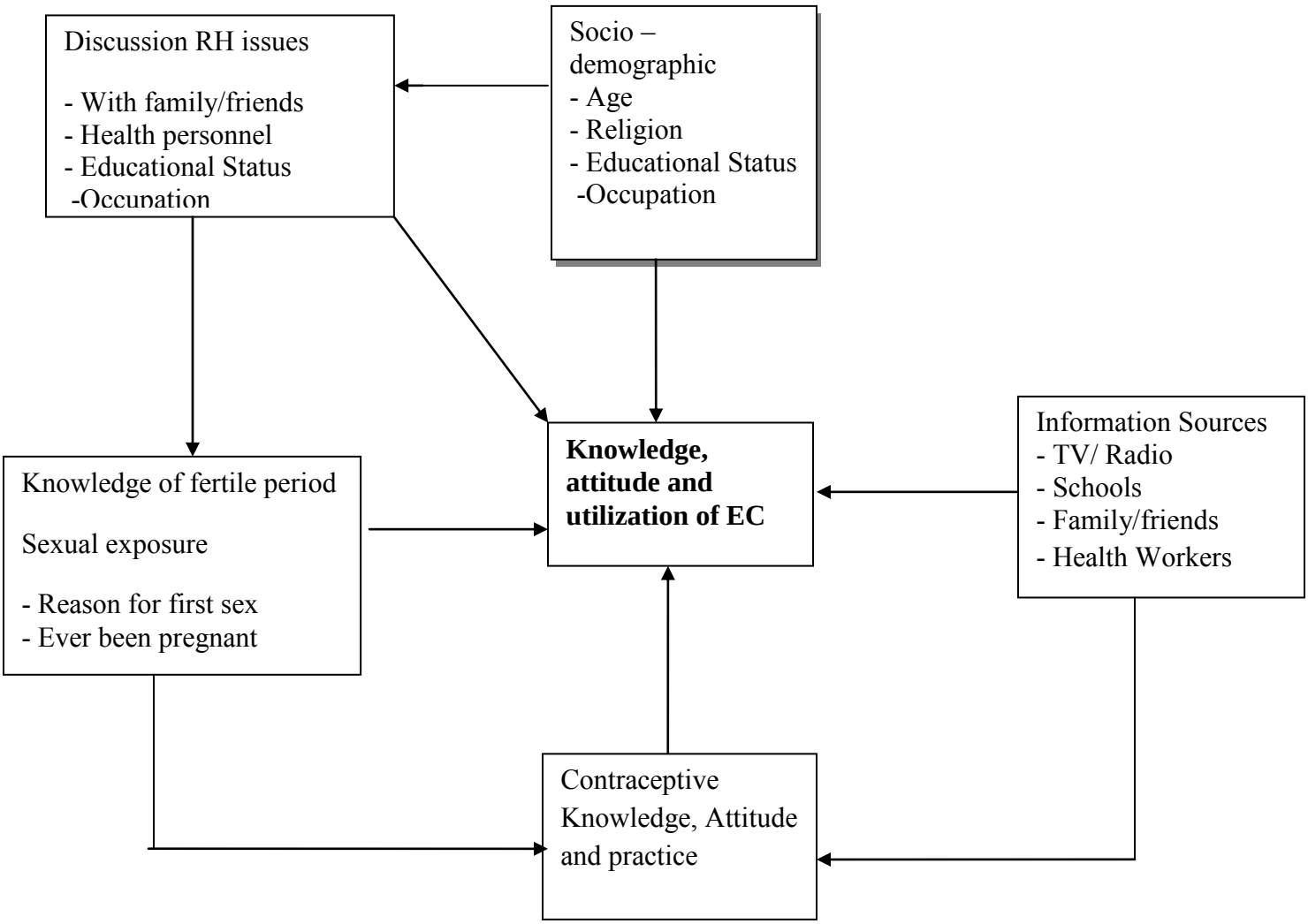
ተ.ቁ	ጥያቄዎች	መልስ	ማለፍ
401	ጥንቃቄ በሌለበት የግብረሥጋ ግንኙነት በሃላ እርግዝናን ለመከላከል የሚደረግ ዘዴ አለ?	1. አዎ 2. የለም	
402	ለተ.ቁ 401 መልስ አዎ ከሆነ የሚታዉቂያቸዉን ዘዴዎች በሙሉ ዘርዝሪ		
403	ስለድንገተኛ የወሊድ መከላከያ ዘዴ ሰምተሽ ታዉቂያለሽ?	1. አዎ 2. አላዉቅም	አላዉቅም ከሆነ ወደ 415
404	ለተ.ቁ 403 መልስ አዎ የትኛዉን ዘዴ ነዉ የምታዉቂዉ? (ከአንድ በላይ መልስ ይቻላል)	1. የሚዋጥ እንክብል 2. በማህጸን ዉስጥ የሚቀመጥ 3. ሌላ ካለ ይገለጽ	
405	ለተ.ቁ 403 መልስ አዎ ከሆነ ለመጀመሪያ ጊዜ ከየት ሰማሽ?	1. ቴሌቪዢን/ሬድዮ 2. የጤና ባላሙያ 3. ቤተሰብ/ጓደኛ 4. መደበኛ ትምህርት 5. ጤና ተቋም 6. ሌላ ካለ ይገለጽ	
406	እርግዝናን ለመከላከል ድንገተኛ የወሊድ መከላከያ እንክብል ጥንቃቄ ከጎደለዉ የግብረሥጋ ግንኙነት በሃላ በምን ያህል ጊዜ ዉስጥ መወሰድ ይኖርበታል?	1. ከግብረሥጋ ግንኙነት በሀሃላ ወዲያዉኑ 2. በ 24 ሰዓታት ዉስጥ 3. በ 72 ሰዓታት ዉስጥ 4. በ 5 ቀናት ዉስጥ 5. በሳምንት ዉስጥ 6. የወር አበባ ከቀረ በሃላ	

407	እርግዝናን ለመከላከል በማህጸን ዉስጥ የሚቀመጥ የድንገተኛ ወሊድ መከላከያ ጥንቃቄ ከጎደለበት የግብረሥጋ ግንኙነት በሃላ በምን ያህል ጊዜ ዉስጥ መደረግ አለበት?	1. ከግብረሥጋ ግንኙነት በሀሃላ ወዲያዉኑ 2. በ 24 ሰዓታት ዉስጥ 3. በ 72 ሰዓታት ዉስጥ 4. በ 5 ቀናት ዉስጥ 5. በሳምንት ዉስጥ 6. የወር አበባ ከቀረ በሃላ 7. አላዉቅም	
408	ድንገተኛ የወሊድ መከላከያ እንዴት ነዉ የሚሰራዉ?	1. እርግዝና እንዳይከሠት ይከላከላል 2. ጽንስ ያስወርዳል 3. አላዉቅም	
409	ድንገተኛ የወሊድ መከላከያ እርግዝናን ለመከላከል መወሰድ ያለበት ምን አይነት ሁኔታ ሲፈጠር ነዉ? (ከአንድ በላይ መልስ መስጠት ይቻላል)	1. አስገድዶ መደፈር ሲኖር 2. ኮነዶም ሲወልቅ/ሲቀደድ 3. መደበኛ የወሊድ መከላከያ መዉሰድ ሲረሳ 4. ምንም አይነት የወሊድ መከላከያ ዘዴ ሳይጠቀሙ የግብረሥጋ ግንኙነት ሲኖር 5. ሌላ ካለ ይጠቀስ 6. አላዉቅም	
410	ድንገተኛ የወሊድ መከላከያ ዘዴ ተጠቅመሽ ታዉቂያለሽ?	1. አዎ 2. አላዉቅም	አላዉቅም ከሆነ ወደ 415
411	ለተ.ቁ 410 መልስ አዎ ከሆነ የትኛዉን ዘዴ ተጠቅመሻል?	1. የሚዋጥ እንክብል 2. በማህጸን ዉስጥ የሚቀመጥ 3. ሌላ ካለ የጠቀስ	
412	ለተ.ቁ 410 መልስ አዎ ከሆነ ስንት ጊዜ ተጠቅመሻል?	1. አንድ ጊዜ 2. ሁለት ጊዜ 3. ሶስት ጊዜ 4. ከሶስት ጊዜ በላይ	

413	ለድንገተኛ የወሊድ መከላከያ መጠቀምሽ ምክንያት ምን ነበር?	1. ኮንዶም መጪለቅ/መቀደድ 2. አስገድዶ መደፈር 3. ምንም ዓይነት የወሊድ መከላከያ ስላልተጠቀምኩ 4. መደበኛ የወሊድ መከላከያ እንክብል መርሳት 5. ሌላ ካለ ይገለጽ	
414	ድንገተኛ የወሊድ መከላከያ ከየት ነበር ያገኘሽዉ?	1. ከኢትዮጵያ ቤተሰብ መምሪያ ማህበር 2. ከመንግሥት ጤና ተቋማት 3. ከግል ክሊኒክ 4. ከፋርማሲ 5. ሌላ ካለ ይገለጽ	
415	ድንገተኛ የወሊድ መከላከያ ለማን መሰጠት አለበት?	1. መከላከያ ለሚፈልጉ ሴቶች ሁሉ 2. ትዳር ላላቸዉ ሴቶች ብቻ 3. ለወጣት ሴቶች 4. ለተደፈሩ ሴቶች 5. ሌላ ካለ ይገለጽ	
416	መልስሽ መከላከያዉን ለሚፈልጉ ሴቶች ሁሉ ካልሆነ ለምን?	1. ለመጥፎ ሁኔታ ስለሚያጋልጥ 2. በልተገባ ሁኔታ ሊዉል ይችላል 3. ኤችአይቪ ኤድስ ስለሚያስፋፋ 4. እርግዝና ከተከሰተ ሽሉን ስለሚጎዳ 5. መድሃኒቱ ተጓዳኝ ጉዳቶች ስላሉት 6. ሐይማኖት ስለሚከላክል 7. ሌላ ካለ ይገለጽ	

417	ለወደፊቱ አስፈላጊ ሆኖ ከገኘሽዉ ድንገተኛ የወሊድ መከላከያ ለመጠቀም ፍላጎት አለሽ?	1. አዎ 2. ፍላጎት የለኝም	
418	ድንገተኛ የወሊድ መከላከያ ለመጠቀም ፍላጎት ካለሽ መድሐኒቱን ከየት ማግኘት ትመርጫለሽ?	1. ከኢትዮጵያ ቤተሰብ መምሪያ ማህበር 2. ከመንግሥት ጤና ተቋማት 3. ከግል ክሊኒክ 4. ከፋርማሲ 5. ሌላ ካለ ይገለጽ	

Annex II: Conceptual Framework



Annex III: Operational definitions

Attitude: – the way of thinking to whom EC should be provided to and an intention to use EC in the future.

Emergency contraception: - type of contraception used as an emergency to prevent unwanted pregnancy following an unprotected/unintended act of sexual intercourse.

Knowledge: –the ability to mention availability of contraception after unprotected sexual intercourse, the correct time to start ECP, how emergency contraception prevents pregnancy and indication for EC.

Utilization: -use of contraception or emergency contraception for the protection of unintended or unwanted pregnancy.

Unprotected sexual intercourse: - sexual intercourse without using any contraceptive methods includes condom and oral contraceptive pill.

Unmarried women:- women of reproductive age (15-49 years) that are not married currently.

Declaration

I, the undersigned, declare that this thesis is my original work in partial fulfillment of the Requirement for the Degree of Masters of Public Health and has not been presented for a degree in this or any other university. All source of materials used for this thesis have been duly acknowledged.

Name: Aman Jima

Signature: _____

Place: school of public health, Addis Ababa University

Date of submission: 23, May, 2012

This thesis has been submitted to School of Public Health, Addis Ababa University with my approval as the university advisor.

Name of the advisor Signature

Dr. Ababi Zergaw _____