# ADDIS ABABA UNIVERSITY
# DEPARTMENT OF COMMUNITY HEALTH

# ASSEMENT OF KNOWLEDGE, ATTITUDE AND PRACTICES ON EMERGENCY CONTRACEPTION AMONG WOMEN SEEKING POST ABORTION CARE IN ADDIS ABABA

THESIS SUBMITTED TO THE SCHOOLOF GRADUATE STUDIES OF
ADDIS ABABA UNIVERSITY IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE DEGREE OF MASTER IN PUBLIC
HEALTH

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# Declaration

I the under signed declared that this thesis is my original work ,has not been presented for degree in this or any other university and that all sources of material used for the thesis have been fully acknowledged .

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# Table of Contents

| So. No. | Contents | Page |
|---|---|---|
| i | Acknowledgements | i |
| ii | Table of contents | iii |
| iii | List of tables | iv |
| iv | acronyms | v |
| 1 | Executive Summary | 1-2 |
| 2 | Introduction and the Statement of the Problem | 3-6 |
| 3 | Ligature Review | 7-13 |
| 4 | Conceptual Frame work | 14 |
| 5 | General and Specific Objectives | 15 |
| 6 | Methods and Materials | 16 |
| 6.1 | Study Area | 16 |
| 6.2 | Study Designs | 16 |
| 6.3 | Quantitative Method | 16 |
| 6.3.1 | Source Population | 16 |
| 6.3.2. | Study Subjects | 16 |
| 6.3.3. | Sampling Units | 16 |
| 6.3.4 | Sample Size Determinations | 17 |
| 6.3.5 | Sampling Technique/Procedure | 17 |
| 6.3.6 | Data Collection Plan | 18 |
| 6.3.7 | Variables | 18 |
| 6.3.7.1 | Independent Variables | 18 |
| 6.3.7.2 | Dependent Variables | 19 |
| 6.3.8 | Data Quality Issue | 19 |
| 6.3.9 | Data Entry and Analysis | 19 |
| 6.4 | Qualitative Method | 19 |
| 6.4.1 | Study Population | 19 |
| 6.4.2 | Sampling Method | 19 |

# Table of Contents

| So. No. | Contents | Page |
|---|---|---|
| 6.4.3 | Procedure of Data Collection | 19 |
| 6.4.4 | Data Analysis | 20 |
| 6.5 | Ethical Consideration | 21 |
| 7 | Results | 22 |
| 7.1 | Socio demographic Characteristics | 23 |
| 7.2 | Regular Contraceptives | 25 |
| 7.3 | The Index Pregnancy | 25 |
| 7.4 | Emergency Contraceptives | 28 |
| 7.5 | Utilization of Emergency Contraceptives | 29 |
| 7.6 | Attitudes of Women Seeking PAC toward EC | 33 |
| 7.7 | Role of Health Care Providers in Promotion of EC | 37 |
| 8 | Discussion | 39 |
| 9 | Strengths and Limitations of the Study | 43 |
| 10 | Conclusion | 44 |
| 11 | Recommendations | 45 |
| 12 | References | 46-48 |
| 13 | Annex one- Operational definitions | |
| 14 | Annex two- Confidential , Verbal Consents and Questionnaires | |

# List of Tables

**Types of tables** pages

Table- 1. Socio demographic Characteristics of women seeking PAC in selected health facilities in Addis Ababa from January to March 2006 24

Table-2. Reproductive Status of women seeking PAC in selected health facilities in Addis Ababa from January to March 2006 27

Table-3 .Awareness and utilization of emergency contraceptives of women seeking PAC in selected health facilities in Addis Ababa from January to March 2006 31

Table-4. Attitude of women seeking PAC toward emergency contraceptives in selected health facilities in Addis Ababa from January-March 2006 34

Table -5.Analysis of the determinants of emergency contraceptives of women seeking PAC in selected health facilities in Addis Ababa from January-March 2006 36

# ACRONYMS

| | |
|---|---|
| COC | Combined Oral Contraceptives |
| Cu- T | Copper T intra uterine Device |
| EC | Emergency contraceptive |
| ECps | Emergency contraceptive pills |
| ESOG | Ethiopian society of Obstetrician & Gynecologists |
| FGAE | Family Guidance Association of Ethiopia |
| ***FP*** | ***Family planning*** |
| IEC | information education and communication |
| IPAS | international project Assistance service |
| IUCD | Intera Uterine Contraceptive Device |
| KAP | Knowledge, attitude and practices |
| ***MOH*** | ***Ministry of Health*** |
| NGO | None Governmental Organizations |
| OR | odds ratio |
| PAC | Post abortion Care |
| WHO | World health organization |

# 1. Executive Summary

Induced abortion is major and direct cause of maternal morbidity and mortality. Estimated 40-60 million women seek termination of pregnancy every year and the largest percentages of the induced abortions take place in the developing countries. Emergency contraceptive methods can serve as a backup method to reduce the occurrence of unwanted pregnancy and its outcome following unprotected sex.

**Objectives**

To assess KAP of contraceptives with emphasis on emergency contraception among women seeking post abortion care in public and private hospitals and the role of the health care providers in promoting emergency contraceptive service in Addis Ababa.

**Methods**

A cross-sectional study, with both quantitative and qualitative components, was conducted in five government and three private hospitals in Addis Ababa during January to March 2006. A total of 417 questionnaires, with response rate of 98.8% and unit heads of the respective hospitals were interviewed using structured and semi structured questionnaires prepared in Amharic. Consecutive patients seeking post-abortion care at the hospitals were included in the study. Data were entered into a computer and statistical analysis was done using EPI6 INFO and SSPS version 10 statistical soft wares.

**Result**

Of the 417 women included in the study 59 (14.1%) reported as heard about emergency contraception. Where as, only 15(3.6%) of the women had used emergency contraception. Public health facilities hospitals and health centres were mentioned by 101(24.2%) of the women as current sources of emergency contraceptives. The preferred sources of emergency contraceptives were reported to be public hospitals 243 (58%), health centres 295 (70.7%), pharmacies194 (46.5%), and private clinics 63(15.1%). During the study period, the government hospitals were providing service of emergency contraceptives using trained health personnel 24 hours, unlike the private hospitals.

**Conclusion**

This study confirms the need to improve women's knowledge about the risk of unplanned pregnancy, and the importance of regular and emergency contraceptives. Barriers against access and utilization of emergency contraceptives should be removed.

# 2. INTRODUCTION AND STATEMENT OF THE PROBLEM

Worldwide, more than a quarter of women who become pregnant have either an abortion or an unwanted birth.(1) In developed countries of the 28 million pregnancies occurring every year, an estimated 49% are unplanned, and 36% end in abortion. In developing countries of the 182 million pregnancies occurring every year, an estimated 36% are unplanned, and 20% end in abortion. (1) World Health Organization estimates that almost 20 million unsafe abortions occur each year 19 million in developing countries. Of the estimated 600,000 annual pregnancy-related deaths worldwide, about 13% (or 78,000) are related to complications of unsafe abortion. Mortality due to abortion is highest in Africa, 680 deaths per 100,000 procedures. (1)

In Ethiopia according to the survey conducted in 2000 by ESOG in nine administrative regions, 25.6% of 1075 abortion cases were induced abortions. Among abortion cases, 60% were unplanned, and 50% were unwanted while the knowledge of contraceptives among the study subjects was about 87%with 50%of ever use. (2) Abortion related mortality was 1,209 per 100,000 abortions (2). Also according to the Ethiopia Demographic and Health Survey of 2000, about 25,000 women die every year due to pregnancy and childbirth complications (3) In Ethiopia abortion is estimated to account for about 32 percent of maternal deaths. (4)

Ones a woman decides to terminate unplanned pregnancy nothing can stop her such as, legal or religious restriction, social stigma, lack of access to professional care, etc. Abortion performed by un qualified person under unsafe condition increases the risk of woman's death by 100-500times greater than the women access to safe induced abortion.(5) Induced abortion, performed by unqualified persons under unsafe condition was around 30% as studies has indicated in 2000 in Addis Ababa and its surrounding and it was responsible for 54% maternal deaths.(4)

In about half of all unwanted pregnancies, conceptions occurs despite the use of some sort of contraception due to in adequate guidance to use contraception effectively, including addressing feelings, attitudes and motivations. Health care providers must help woman in selecting appropriate and effective method of contraceptive, understand barriers that restrict women from using contraceptives, and ensure young people confidential access to emergency contraception. Additionally the health care providers need to improve service delivery system in order to provide EC timely, educating all staffs on EC ,providing prescriptions for ECPs during routine clinical visit, reducing financial and psychological barriers and encouraging teen seeking emergency contraceptives to adopt regular contraceptives ,counseling on HIV/AIDS, STI.Also they are expected to provide ample guidance to ensure that clients use contraceptives effectively to prevent unwanted pregnancies. (6) Further more the health care providers and counselors must also understand the role that the environment of poverty and hopelessness may play in eroding motivation to prevent unintended pregnancy. Low-income couples must have access to positive alternatives to unintended childbearing, such as jobs and opportunities for personal growth and education. (6)

The prevention of unwanted pregnancy require multifaceted approach that includes primary and secondary prevention methods, adequate information about and access to EC are essential components of secondary prevention efforts. Emergency contraceptive methods provide a second chance to prevent unwanted pregnancy and induced abortion rates by 75% and 50% respectively. (7)

In Ethiopia a high dose of combined oral contraceptives has been advised for emergency purposes by health care providers for decade's prior to the introduction of the dedicate product called postinor2 tablets in 2003 to Public health institutions by NGOs and concerned professional associations. (8, 9) Postinor2 tablet is an oral emergency contraceptive that may help to prevent a pregnancy if taken within 72hrs of unprotected sexual intercourse or failure of contraceptive methods. It contains a synthetic luteal hormone like active substance, levonor-gestrel and other substances. (10)

Additionally in 2004, the MOH, ESOG, population council and ECafricque have made an agreement to mainstream EC service into public sectors and to scale up EC service. (8,9). Ministry of health, ESOG and Ecafrique continue to work toward mainstreaming of EC services into public and non-government sectors and training of providers on postinor2. The service of Pstinor2 began at 36-service delivery points located through the country's five main regions, Addis Ababa, Amhara, Tigry Oromia and SNNPR.(11)

The high prevalence of unsafe induced abortion shows the existence of some barrier that hamper use family planning methods in particular emergency contraceptives among women seeking post abortion care. If women have enough information and access to emergency contraceptives they will prevent unwanted pregnancy and it's out come.

The majority of patients with unsafe induced abortion to complete the abortion or for the treatment of complications of unsafe induced abortion require post abortion care. Post abortion care has five components which include provision of emergency medical care, counselling, contraceptive and family planning services, reproductive and other related health service, community and service providers' partnerships to prevent unwanted pregnancy and unsafe abortion. (12) Post abortion care reduces abortion related maternal mortality and help break the cycle of unwanted pregnancy.

This study assess the KAP of emergency contraceptives among PAC seekers in five public and three private profit making health institutions that provide post abortion care in Addis Ababa to evaluate the level of KAP of general contraceptives with emphasis to EC methods and to provide appropriate recommendations that improve KAP of family planning methods in general and the role of health care providers in promotion of EC.

Conducting such type of study at this time has relevance, because emergency contraception service has get due consideration in the country and the findings of the study will help the programmers and service providers in identifying areas where emphasis has to be given in development of strategies that will promote the utilization of modern contraceptives in general and emergency contraception, in particular, so as to reduce the occurrence of unintended and unplanned pregnancies and their consequences.

# 3. LITRATURE REVIEW

Emergency contraception (EC) refers to contraceptive methods that reduce the chance of pregnancy following unprotected intercourse. These methods are simple, safe, and effective. They are intended as last chance to prevent pregnancy for women who have been exposed to unprotected coitus and who do not wish to become pregnant. (13, 14)

There are two types of emergency contraception: hormonal methods and the insertion of an intrauterine device (IUD). Hormonal emergency contraception consists of a short-course of oestrogen-progestin combination pills or progestin only pills taken within 72 hours of unprotected intercourse. The ingredients in these pills are the same as those used in regular birth control pills. They can be taken at any time during the menstrual cycle. Another, non-hormonal method of emergency contraception involves inserting a copper IUD into the uterus. This method prevents implantation of fertilized egg and can be used to prevent pregnancy up to five to seven days after unprotected intercourse. However, this method is not suitable for all women. ((13, 14)

## The need for emergency contraception

The need for emergency contraception is clearly demonstrated by the occurrence of unwanted pregnancies and induced abortion, and by the high rates of unwanted pregnancy among adolescents. Approximately 50% of all pregnancies are unintended. Of these, 50% are unwanted, often ending in abortion. ((13, 14

No method of contraception is 100% effective, thus demonstrating the need for an emergency back-up method. About half of unintended pregnancies occur because of some type of contraceptive failure; either failure of the method or a mistake on the part of the user. For example, roughly 24% of unintended pregnancies occur because of oral contraceptive failure. Additionally, it is estimated 2,000–3,000 condoms slip or break each day in Canada. Emergency contraception gives these women practical option and a critical last chance to prevent unwanted pregnancy and the associated hardships. (13, 14, 15)

### Effectiveness of emergency contraception

Emergency contraception reduces the risk of pregnancy if it is used appropriately. On average, the Yuzpe method of emergency contraception reduces the risk of pregnancy by 75% and progestin-only pills (Plan B) reduce the risk of pregnancy by 89%.
(13, 14, 15) The effectiveness of both methods depends on how quickly the woman obtains emergency post coital contraception. The sooner the pills are taken within the 72-hour window, the more effective they will be (13,14)

### Side effects associated with emergency contraception and its contraindications.

Some women may experience nausea, vomiting, spotting after taking emergency contraceptive pills this is normal. Other women can have menstrual periods lighter or heavier than normal. The majority of women will have their menstrual period on time or slightly early. If a menstrual period is delayed more than one week, the woman should have a pregnancy test. (13, 14) No known contraindications other than abnormal genital bleeding and pregnancy.

A physical examination is not required prior to using emergency contraception.
A pregnancy test is also not needed if the woman is sure she is not pregnant from any earlier act of unprotected sex. (13) A history of ectopic pregnancy need not be considered a contraindication to use of emergency contraception. A single treatment with emergency contraceptive pills is unlikely to have an important effect on milk quantity or quality. (13)

### KAP of EC among women seeking Post abortion care

In study done in USA in 2000-2001 among 1.3 million women who under went induced abortions in 2000, 608,000 had not being using contraceptive method around the time they become pregnant, 610,000 had been using the method but not consistently or correctly, and 95,000 had thought they were using the method perfectly but become pregnant because of method failure. (16)

Also In study done in Sweden in 2002 KAP of contraceptive among abortion applicants most of the applicants have knowledge though detail and specific knowledge is lacking. (17) Not all sexually active adolescents use contraception, and even those who use contraception sometimes use it incorrectly who may benefit much from emergency contraception. However, barriers to accessing emergency contraceptives include lack of knowledge of the method, fear of loss of privacy, difficulties in finding a provider, cost and controversy exists about the mechanisms of action of emergency contraception about its role in pregnancy prevention. (18,19)

In the study done to assess the, awareness and attitude toward contraceptives use of teenage girls requesting abortion in Hungary the use of reliable contraceptive methods was significantly less frequent among the teenagers than among the older counterparts, but this difference was much more significant ($P<0.001$) between those who requested abortion ($OR=0.44$) than between the controls ($OR=0.51$). The knowledge about emergency contraceptive pills was similarly significantly poorer between the teenagers in the abortion group ($P<0.001$) relative to the older women ($OR=0.07$) and the teenagers in the control group ($OR=0.10$). Financial means was not a significant determinant in the choice of contraceptives. (20)

Among women seeking emergency department care, aged 18-45 of all respondents, 122 (77%; 95% CI 71% to 84%) had heard of emergency contraception as a way of preventing pregnancy after unprotected intercourse and, one fourth to one half did not have enough knowledge to use emergency contraceptive pills effectively. Fifty-seven percent of women were willing to use emergency contraceptive pills in the future. (18) Induced abortion patients also were significantly more likely to be null parous, students, and determined to use contraception in the future than their counterparts in the spontaneous abortion group. Overall, 234 (82%) of respondents stated their pregnancy was unwanted; 62% of women with unwanted pregnancies had used a contraceptive method at some point in the past 12 months, primarily the pill (66.9%) and abstinence (29.7%). There were 50 pregnancies among the 97 pill users. The most frequently cited reasons for non use of contraception were health-related concerns (33.9%), failure to anticipate sexual intercourse (39.9%), and a negative attitude toward or lack of knowledge about contraception (32.2%(21).

The proportion of induced abortion remained static at approximately 30% by contribution of all health workers in reduction of abortion rate and safe guard women‘s reproductive health by providing emergency contraception and educating women about the use of emergency contraception. (22)

In study done in Addis Ababa City five hospitals that provide post abortion care in 2002 among women seeking post abortion care 214(53.4%) were ever used contraceptives and 310 (77.3%) knew at least one contraceptive method. Among those156 (38.9%) the pregnancy was unwanted. Their knowledge of contraceptives and regular use of the contraceptive was poor. (23)

In Hong Kong among 200 women who had requested the termination of unplanned pregnancy, 134 women who had heard of emergency contraception56 (41.8%) did not use it because they were willing to take the risk of starting pregnancy, 30(22.4%) thought that their current contraceptive method work. The reasons why the women thought they had the unplanned pregnancy were related to condom use7 (39.5%) of 43 women who did not use any methods during the month of conception 43%, three of 43 women 7% said they did not know about contraception and 9(20.9%) believed that they would not get pregnant easily because of various reasons such as older age, health problems, or having sex on occasionally. (24)

In the study done in India from1999 –2003 on KAP of women requesting medical termination of pregnancy over 90 % of them were aware of Cu-T, COC and condoms, and 42% aware of withdrawal, Cu-T, condoms and withdrawal were used only by 29%, 47%, 77% respectively. Women discontinued Cu-T, COC, Condom or rhythm method (11%), due to lack of strong motivation, incorrect Knowledge and myths.

Unwanted pregnancies would have been prevented in 16% of women who were suitable candidates for emergency contraception (failure of withdrawal /condom) but were not aware of emergency contraceptives. (25)

According to the analysis conducted by the Alan Guttmacher Institute (AGI), from 1994-2000 estimates that increased use of EC may account for up to 43% of the total decline of induced abortion. The study found that 46% of women having abortions were not using a contraceptive method in the month they became pregnant, including 8% who had never practiced contraception. Among the many reasons that women gave for not using contraceptives, the most common were that they did not think they would become pregnant (33%), they had concerns about methods (32%), including side effects and problems with methods in the past, and they did not expect to have sex (26%). (26)

In one study in India about 82.2 % of women were aware of the existence of contraceptive methods but the ever used were only 44.2% and the common method ever used by couples was condom (34.5%). Among women under going abortion, the majority were married 200(93.5).(28) According to 1999 study in the USA among women seeking medical termination of pregnancy 71% of all patients had no real knowledge of the existence of emergency contraceptive options; 26% had some limited knowledge, and only 3% had somewhat complete and valuable information. (29) Majority of the study subjects 84% were claimed to use or recommend emergency contraceptives for friends and relatives and cited concerns of side effects in study done in Mexico ,Nairobi and Kwiet .(30,31)

## Role of Health Care providers in Promotion of Emergency Contraception

It is essential for all primary care physicians and Gynecologists to discuss emergency contraception with all sexual active women. Women should know that there is a back up for contraceptive failure and that the earlier they act the better. It should be stressed that emergency contraceptive cannot replace regular contraception.(32)

Health care providers requires to counsel adolescents about ECps during visits to health care facilities. Women of reproductive age being treated for sexual assault in emergency department or other health settings should be counseled about ECPs and offered a complete course of ECPs treatment at the time of assessment. Counseling about EC should include, description of the methods, mechanism of action, indication for use, efficacy, safety, common side effects, time limit for use, where and how to obtain the method and also information about other effective methods of contraception.(33) As some studies done in USA have indicated knowledge of emergency contraception among providers increased by 53% which was 13.2% prior to the implementation of training program of emergency contraception  for providers and clients.(33).Nurses and midwives who work in family planning services can help women in selecting appropriate and effective methods of contraceptives.(34) further more in the United States, many barriers limit teens' access to sexual health services. Barriers may include transportation difficulties, high cost, fear of invasive procedures, limited clinic hours, disapproving health care personnel, and fear of parental disapproval. Societal negativity about teenage sexuality combined with significant barriers to health services may encourage sexual risk behaviors by teens.(35).A health care professional, play a key role in ensuring that young people have confidential access to emergency contraception. Studies show that, once informed about emergency contraception, approximately three-quarters of young women report that they would be likely to take the pills if they needed them? In order to improve service delivery a health worker can create "teen-friendly" office policies and/or procedures that welcome all youth, ensure that clients are able to receive EC in a timely manner , simplifying the response for times when young women call and report having had unprotected sexual intercourse, educating all staff on EC and training receptionists, volunteers, and medical assistants, as well as counselors and clinicians on the office policies and/or procedures that are related to EC. Also Provide young women with a prescription for emergency contraception during routine visit*s*. Anticipatory provision will ensure that young women can use emergency contraception as soon as possible after unprotected sexual intercourse. Young women who have emergency contraception in advance may begin treatment sooner than those with a prescription that will have to be filled. (35)  Providing emergency contraception without a pelvic examination or pregnancy test, reducing financial and psychological barriers. Encourage teens seeking emergency contraception to adopt a regular contraceptive method in the future. Providing emergency contraception can create a bridge to regular reproductive health care for sexually active teens. Teens who have been forced or coerced into genital sexual activity should receive emergency contraception, HIV/STD testing and counseling, contraceptive counseling, and referral to important social services, as mandated. (35)

## Objectives

General objective

The general objective of this study is to assess the KAP of family planning with emphasis to emergency contraceptives among women seeking post abortion care (PAC) and the role of health care providers in the promotion of emergency contraceptives) in public and private health facilities in Addis Ababa.

## 5.1 Specific objectives: -

- Determine level of knowledge of contraceptives methods with emphasis to emergency contraception among women seeking post abortion care,
- Assess attitude of women seeking post abortion care towards emergency contraception
- Assess utilization of emergency contraceptives among women seeking post abortion care
- Identify the role of health care providers in the promotion of emergency contraceptives.

# 6. Methods and Materials

## 6.1 Study Area

Addis Ababa is the capital city of Ethiopia. The City has ten sub cities and hundred kebeles. The population of the city is estimated to be 2.8 million. Reproductive age of women accounts for 34.4%. (25) The potential health coverage is about 100%. Antenatal coverage estimated to be 82.11%, institutional delivery 39.89%, postnatal coverage 19.47%, and family planning 23.27%. Total fertility rate is below the replacement level. (27)

## 6.2 Study Designs

Cross sectional quantitative study, supplemented with a qualitative method was employed.

## 6.3 Quantitative method

6.3.1 Source population

Source populations were women of reproductive age group 15 –49 seeking post abortions cares residing in Addis Ababa during the study period.

### 6.3.2 Study subjects

Women seeking post abortion care in sampling units.

### 6.3.3 Sampling units

Five public hospitals ,Tikur Anbessa, St Paul's, Gandhi, Zewditu, Yekatit 12 hospitals and, three private profit making hospitals Brass, Denberwa and Bethel were purposively selected as sampling unit. These health facilities were selected considering that they represent most of health institutions that provide PAC and PAC seekers from these facilities can represent the majority of clients seeking the service in the study area as the majority of care seekers come to these facilities from different socio economic status of the society. Additionally they were officially known PAC providers when this study was conducted.

### 6.3.4 Sample Size determination

Since data is not available on KAP of emergency contraception among patients requiring post abortion care, 50% of population proportion was used to determine sample size based on single population proportion and the level of precision (d) is (0.05).

Assumption

- **n**= number of the study subjects
- **Z**= is standardized normal distribution curve /value for the 95% confidence interval (1.96)
- **p** =proportion of population with knowledge, attitude and practices of emergency contraception among post abortion care seekers (50%).
- **d** = the margin of error taken (0.05 taken )
- Non response rate=10%
- $\mathbf{n = (Z\alpha/2)^2 p(1-p)/d^2 = (1.96)^2 x(0.5x0.5)/ (0.05)^2 = 384}$

  $\mathbf{= 384+10\% = 384+39=422}$

The total sample size for this study was 422 of women seeking post abortion care in the study unit including 10% none respondent rate.

6.3.5 Sampling technique/procedure

Sampling method used was purposive sampling, non-probability because of the study subject availability at the time of the data collection. All consecutive patients seeking post abortion care at sampling units were included in the study.

### 6.3.6 Data collection plan: -

The data collectors were nurses and midwives who have experience and working in respective health institutions in the department of obstetric and who were providing care for the clients. The data collectors were trained by the principal investigator on the objectives of the study and how to interview, fill the questionnaire and handle questions asked by clients during interviewing. The client was interviewed after the discharge decided and just before the client left the respective health institution.

During the data collection process each questionnaire was checked daily in the mornings by the supervisor and principal investigator for its completeness and accuracy.

## 6.3.7 Variables

### 6.3.7.1 Independent variables

Age, sex, marital status, educational level, religion, occupation, parity, abortions, emergency contraception methods, Source of information, drugs contained in EC, timing, accessibility, side effects, effectiveness, sources, concerns about EC, preferred health personnel.

### 6.3.7.2. Dependent variables

Knowledge, attitude, practices about contraception

### 6.3.8. Data quality Issues

To keep the quality of the data, standard questionnaire adapted and the English version translated in to Amharic and then back to English to maintain its consistence for actual data collection purpose. Then, the questionnaires were tested for their accuracy and consistency prior to the collection of data on clients outside the study subjects. Data collectors selected appropriately and trained. The data collection process was regularly checked by the supervisor and principal investigator for its accuracy and completeness.

### 6.3.9. Data entry and analysis

The collected data was coded, entered, cleaned and the appropriate descriptive statistical analysis and cross tabs done using Epinfo version 6 for entering data and SPSS version-10 statistical soft wears for analysis. Frequencies cross tabs multivariate and binary regressions were done to analyse the data and tables used to present the result of the analysis.

## 6.4. Qualitative Method

### 6.4.1. Study population

Family planning unit heads / their representatives of health facilities in Addis Ababa

### 6.4.2. Sampling Method

Purposive sampling method was used to select health facilities and family planning heads/ their representative of the selected health facilities were chose for the in-depth interviewing.

### 6.4.3. Procedure for data collection

Data collected from eight selected health facilities family planning unit heads using open-ended and responsive questioning technique (in-depth interview) by the principal investigator and the information obtained through interview recorded on notebook.

### 6.4.4. Data analysis

Interview written in full or transcribed manually and repeatedly read guided by the interview questions and the words or phrases that frequently recur identified (general themes) and similar response grouped based on the questions.

## 6.5. Ethical Considerations

Ethical clearance and permission obtained from the Ethical Committee of the Faculty of Medicine, Addis Ababa University and the respective health institutions respectively before the data collection process started.

The study participants were informed about the purpose of the study and the importance of their participation in the study by contributing information that may help in assessing the awareness, attitude and practices of women seeking post abortion care toward general contraceptives and in particular about emergency contraceptives. Also the study subjects were informed as they can skip question or questions that they did not want to answer fully or partly and also to stop the interviewing process at any time if they want to do so. Then after assuring the confidential nature of responses and obtaining informed consent from the study subject exit interviewing was conducted with strict privacy.

## 6.6 Dissemination of the study Results

The result of this study will be communicated to Addis Ababa University, Federal ministry of health and Addis Ababa Health Bureau and other organizations. This can be accomplished through presenting the findings at the appropriate meetings seminars workshops and publishing in scientific journals.

# 7. Results

## 7.1. Socio-demographic Characteristics

Four hundred seventeen (98.8%) of post abortion care seekers were interviewed during the data collection period who obtained post abortion care in five government and three private hospitals, Gandhi 148(35.5%), Yekatit 12 hospital,93(22.30%) ,St Paul's hospital 51(12.3%), Tikur Anbessa hospital 38(9.12%), Zewditu hospital 30(7.2%), Brass hospital 25(6%), Denbrua hospital 20(4.8%) and Bethel hospital 12(2.9%).

Age of the study subjects range from 16-47 years with mean of ± SD of 25.92±5.8 years. Over half women's (54.9%) age was 25-47 and the remaining 46.1% were in the age range of 16-24years of age. Educational level of 351(84.2%) the interviewed post abortion care seekers varies from primary to tertiary level, while 66(15.8%) of them were illiterate. The study subjects ethnic group include Amhara, Oromo, Guragie, and Tegrie 161(38.6), 106(25.4%), 74(17.7%) and 64(15.3%) respectively. Among the study subjects 333(80%) were Christians and the rest 83(20%) Islam's by religion. The married women accounts 274(65.7%) and the unmarried 121(29%).Housewives, 171(41%), Office workers, 56(13.4%), Students, 53 (12.7%) and daily labourers, 35(8.4%) were the major study subjects occupationally. Table one show the socio demographic variables of post abortion care seekers.

Table 1: - Socio-demographic characteristics of women seeking PAC in Addis Ababa

from, January-march 2006 in selected public and private health institutions.

| Variable | n | Percentage |
|---|---|---|
| **Age** | | |
| 15-19 | 50 | 12 |
| 20-24 | 142 | 34.1 |
| 25-29 | 106 | 25.4 |
| 30-34 | 73 | 17.5 |
| 35-39 | 42 | 10.1 |
| 40-44 | 2 | .5 |
| 45-49 | 2 | .5 |
| **Educational level** | | |
| Primary | 136 | 32.6 |
| Secondary | 148 | 35.5 |
| Technical &professional | 14 | 3.4 |
| Preparatory | 4 | 1.0 |
| University | 45 | 10.8 |
| Post graduates | 4 | 1.0 |
| No studies at all | 66 | 15.8 |
| **Religion** | | |
| Orthodox | 282 | 67.6 |
| Islam | 82 | 19.7 |
| Protestants | 37 | 8.9 |
| Catholics | 14 | 3.4 |
| Others | 2 | .5 |
| **Marital status** | | |
| Married | 274 | 65.7 |
| Unmarried | 121 | 29.0 |
| Divorced | 15 | 3.6 |
| Separated | 7 | 1.7 |
| **Occupation** | | |
| House wife | 171 | 41.0 |
| Office worker | 56 | 13.4 |
| Student | 53 | 12.7 |
| Daily labourer | 35 | 8.4 |
| Factory worker | 22 | 5.3 |
| Commercial sex worker | 12 | 2.9 |
| Trader | 11 | 2.6 |
| House workers | 10 | 2.4 |
| Health worker | 8 | 1.9 |
| Teacher | 4 | 1.00 |
| Others | 35 | 8.4 |

## 7. 2. Regular contraception

Contraceptive methods ever known by the study subjects were, oral contraceptives pills 347(83%), inject able contraceptives 300(71.9%), Condom 289(69.3%), IUCD 215(51.6%), rhythm methods137 (32.9%) and withdrawal methods99 (23.7%).

Ever use of contraceptive methods among post abortion care seekers was 288(69.1%). The methods ever used consist of oral contraceptives pills 187(44.8%), injection form 80(19.2%), condom 71(17.1%) and IUCD 27(6.5%). Among the post abortion care seekers 129(30.9 %) of them never ever used any form of regular contraceptive methods. Of PAC seekers 69(16.5%) were using contraceptives during the index pregnancy while the remaining 348(83.5%) were not using any methods of contraceptives. According to the responses of the study groups, 218(52.7%) claimed that the pregnancy was wanted, and 199(47.7%) as the pregnancy were unwanted. The major reasons for not using contraceptive methods during the index pregnancy according to the responses of post abortion care seekers of the study groups were, not planned to have sex, 84(20.1%), concerns of side effects 22(5.3%), lack of access to contraceptive10 (2.4%), opposition from partner 5(1.2%) and various reasons, old age, health problems.

## 7.3. The Index pregnancy

Of the total number of post abortion care seekers 199 (47.7%) of the index pregnancy was unwanted and 155 (37.2%) of the index pregnancy terminated by induced abortion. Among women with induced abortions 140(90%) were null Para and 92(59%) unmarried. The reasons for cause of unwanted pregnancy were forget to take contraceptives 60(30%), rape 38(19%)], pressure from partner 32(16%), lack of awareness about contraceptive methods 16(8%), contraceptive failure 14(7%) and a rupture of condom 10(5%). Those who had history of abortion at least ones in the previous time among the study subjects account 180(43.2%).

Table 2: - shows the reproductive status of women seeking PAC in Addis Ababa from January-March, 2006 in selected public and private health institutions

| Variable | n | Percent |
|---|---|---|
| **Current pregnancy wanted** | | |
| Yes | 218 | 52.3 |
| Not wanted | 199 | 47.7 |
| **Reason of becoming pregnant** | | |
| Forget to take contraceptive | 60 | 30.0 |
| Rape | 38 | 19.0 |
| Pressure from partner | 32 | 16.0 |
| Lack of Knowledge of Contraceptives | 16 | 8.0 |
| Contraceptive Failure | 14 | 7.0 |
| Rupture of condom | 10 | 5.0 |
| No response | 7 | 3.5 |
| Others | 22 | 11.5 |
| **Current pregnancy induced** | | |
| Yes | 155 | 37.2 |
| No | 259 | 62.1 |
| No response | 3 | .7 |
| **History of previous abortion** | | |
| Yes | 180 | 43.2 |
| No | 237 | 56.8 |
| **Number of abortions in the past** | | |
| null | 240 | 57.6 |
| 1-2 | 154 | 36.93 |
| 3+ | 23 | 5.52 |
| **Contraceptive methods ever known by PAC seekers *** | | |
| Oral contraceptive pills | 347 | 83..2 |
| Injection form of contraceptives | 300 | 71..9 |
| Condom | 289 | 69..3 |
| IUCD | 215 | 51..6 |
| Rhythm method | 137 | 32..9 |
| Withdrawal method | 100 | 24..0 |
| Tubal legation | 99 | 23.7 |
| **Ever used contraceptives** | | |
| Yes | 288 | 69.1 |
| No | 129 | 30..9 |
| **Reason of not using contraceptives at the time of index pregnancy** | | |
| Pregnancy wanted | 218 | 52..3 |
| Not planned to have sex | 84 | 20.1 |
| Contraceptives were not available | 10 | 2.4 |
| Concerns about the side effects | 22 | 5.3 |
| Lack of knowledge of contraceptives | 35 | 8.4 |
| Partner opposed | 5 | 1.2 |
| Lactating | 3 | .01 |
| Religious moral | 2 | .5 |
| I don't have answer | 6 | 1.4 |
| None response | 32 | 7.7 |

* In average four contraceptive methods were known by women seeking PAC of the study group

## 7. 4. Emergency Contraception

**Awareness and knowledge of emergency contraception**

About 59(14.1%) of the study subjects know about emergency contraception and 358(85.9%) of them do not have awareness about emergency contraception methods and the rest of information could not be obtained from them. Only those who said that they had ended hared of emergency contraceptive 59(14.1&) asked the knowledge assessment questions and those who correctly answered when to take EC 29 (49.2%), effectiveness of EC 30(50.8%), the side effects of EC12 (20.3%), also they were asked about the drug contained in ECPs by reading the options provided on the questioner during the interviewing to see if they can differentiate ECPs from the regular contraceptive, 22(37.28%) of the respondents provided correct answer saying the contents of EC are similar to that of regular contraceptive but stronger .Also 38(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 51(86.4%) and public health centres 50(84.7%).

The study subjects' knowledge classified as good, fair and poor according to the correct response to seven knowledge questions and awareness of EC as indicated above .Study subjects who respond correctly four of knowledge questions classified as having good knowledge about emergency contraceptive methods but those who provide correct respond to less than four questions as fairly knowledgeable and who have no any information about EC as poorly knowledgeable. The clients' correct response to the questions ranges from 0-7 with mean of 0.56 and SD of 1.56. Then study subjects were classified as 27(6.4%) good, 32(7.76%) fair and the remaining 358(85.9%) poor regarding their knowledge level of EC. Among those with good knowledge of emergency contraceptive methods 20(4.7%) were between16-29 years of age and all of them were literate (primary to college level of education).18(4.3%) were married. Those who have history of pregnancy two and more times and history of abortion in the past accounts 18(4.3%) and 8(2%) contraceptive ever used

23(5.5%) and 20(4.8%) were not used any method of contraceptive during the index pregnancy.

Those who were ever used contraceptive methods found to be better awareness about emergency contraceptives compared to nerve ever used contraceptive methods. (OR=0.29,95% CI=0.11-0.74) and those who have an intention to use EC in the future have better awareness compared to those who don't have intention to use EC in the future .(OR=0.32,95% CI =0.17-0.62),employed women among post abortion care seekers have better information compared to unemployed women seeking post abortion care on EC .(OR=2.54 ,95% CI= 1.29-5.01), further more those who had claimed concerns about EC have be better information about EC compared to those with no concern about it.(OR=0.49, 95% CI=0.26-0.92) .Intention of using EC in the future and also concerns about EC may be associated to the level of knowledge of the study subjects about EC.

The source of knowledge of emergency contraceptives was identified as 24(40.8%) health institutions, 20(33.9%) friends and relatives, 10(16.9%) through mass medias and 5(8.5%) during formal educations. Table 3 shows the distribution of selected emergency contraceptives variables among the study subjects.

## 7.5. Utilization of Emergency contraception

Of post abortion care seekers those who had awareness of EC and practiced it were 15(3.6%) and 13(87%) of ever used were between age group of 15-29. The literates account 14(93%), varying from primary education to college though their number in each category was very small. The unmarried and married ever used women were 6(40%), 9(64%) respectively.

Students, commercial sex workers, factory and office workers all together were 8(53%) further more those who had abortion in the previous time accounts 6(40%) of ever used ECPs. Of the ever used those who induced their index pregnancy were 13(87%) & 12 (80%) of them had pregnancy two or more times in the previous time.

The regular contraceptive methods users among the ever used of ECPs were 14(93%) while 12(80%) did not use any contraceptive methods during the index pregnancy.

The reason of using emergency contraceptives by the ever used study subjects were missing timing in calculation 3(20%), condom break 5(33.3 %) pills missed 4(26.7 %), withdrawal failed 1 (6.7 %). Among the ever-used 11(73.3%) had continued using regular contraceptives particularly oral contraceptive pills and the remaining 4(26.6%) did not start any form of contraceptive methods.

Women who had previous abortion found to be more users of emergency contraceptives compared to those who has no history of abortion in the previous time.(OR=.097,95% CI=.010-.935).

Preferred places for distribution of emergency contraceptives by the ever used and not were Public health centres 295(70.7%), Public hospitals 243(58.3%), Private health institutions 63(15.1%), Pharmacies 194(46.5%) and schools 20 (4.8%). Table 3 shows the distribution of selected emergency contraceptives variables among the study subjects.

Table 3:- Awareness and utilization of emergency contraceptives among women Seeking PAC in Addis Ababa from January-March, 2006 in selected public and private Profit making health institutions.

| Variable | n | Percent |
|---|---|---|
| **Ever heard about emergency contraception** | **59** | **14.1** |
| **Source of information about EC** | | |
| Clinics and Health canters | 24 | 40..8 |
| Friends and relatives | 20 | 33..9 |
| Medias | 10 | 16..9 |
| Formal education | 5 | 8..5 |
| **Places from where ECPs obtained** | | |
| Public Hospitals | 51 | 86.4 |
| Public Health Canters | 50 | 84.7 |
| Private Health institutions | 13 | 22 |
| Pharmacy | 13 | 22 |
| Community based Health services | 10 | 16..9 |
| Drug shops | 8 | 13.6 |
| FGAE clinics | 4 | 6.8 |
| **ECPs work if there is menstrual delay** | | |
| Yes | 10 | 16..9 |
| No | 25 | 40.7 |
| I don't Know | 24 | 42.4 |
| **Time at which ECPs should be taken after unprotected sex** | | |
| With in 72 hrs after un protected sex | 29 | 49.2 |
| Immediately after unprotected sex | 9 | 15..3 |
| In the next menses | 6 | 10.1 |
| Within one week after unprotected sex | 2 | 3.4 |
| At any time before the first day of unprotected sex | 1 | 1.7 |
| I don't Know | 11 | 18.6 |
| **Effectiveness of EC in preventing Pregnancy** | | |
| Effective | 30 | 50.8 |
| Not effective | 1 | 1.7 |
| I don't know | 28 | 47.5 |
| **Side effects of ECP** | | |
| Some times cause minor health problems | 12 | 20.3 |
| Don't affect health | 8 | 13.6 |
| Some time don't affect health | 6 | 10.2 |
| I don't Know | 33 | 55.9 |
| **The drug contained in ECP**s | | |
| The same as normal oral contraceptive pill but stronger | 22 | 37.28 |
| The same as normal oral contraceptive pill | 6 | 10.16 |
| Completely different drug from normal contraceptive pill | 2 | 3.38 |
| I don't know | 29 | 49.15 |
| **How ECP**s **prevents unwanted pregnancy** | | |
| Prevent fertilization from taking place | 38 | 64.14 |
| Cause abortion | 6 | 10.16 |
| I don't know | 15 | 25.42 |

Table 3 continued

| **variable** | **n** | **%** |
|---|---|---|
| **Ever used EC** | 15 | 3.60 |
| **Person who recommend ECps for client** | | |
| Friend | 10 | 66.67 |
| Male partner | 5 | 33.33 |
| **Reason of Using EC** | | |
| Condom break | 5 | 33.33 |
| Pills missed | 4 | 26.66 |
| Timing miscalculated | 3 | 20.00 |
| Withdrawal failed | 1 | 6.70 |
| No response | 2 | 13.3 |

## 7.6. Attitude of women seeking post abortion care toward Emergency Contraceptives

Women seeking post abortion care in five government and three private hospitals in Addis Ababa interviewed to assess their opinion and concerns they have toward emergency contraception using nine variables. Of 275 responses 100(36%), said emergency contraception affect the health of the woman, 33(12%) hurt the baby in case it doesn't work, 15(5.5%) causes sterility in the future, 34(12%) make women to suffer from STI and even HIV/AIDS, 10(3.6%) if men know its presence they would force women to use it, 21(7.6%) some women may use it frequently instead of using regular contraceptives methods,51(18.55%)not have enough information about emergency contraception .

Regarding the health personnel preferred to prescribe ECPs the response of the study subjects were Physician 254(60.9%), Nurses 284(68.1%), Pharmacists 131(31.4 %), Midwives 46(11%) and Community Health Workers37 (8.9%).

Among the study subjects 179(42.9%) have willingness to use or recommend EC for relatives and friends in the future when the need has occurred after they have told about EC While 238(57.1%) were not willing to use EC in the future or recommend for others.

Table 4: - Attitude of women seeking PAC toward emergency contraception in Addis Ababa from, January-March 2006 in selected public and private profit making health institutions.

| Variable | n | Percent |
|---|---|---|
| **Any concerns toward emergency contraception** | | |
| Yes | 187 | 44.8 |
| No concern | 230 | 55.2 |
| **Concerns about emergency contraception** | | |
| Affects Health | 100 | 36.4 |
| I don't have enough information about EC | 51 | 18.55 |
| Makes women to suffer from STI even HIV/AIDS | 34 | 12.4 |
| Hurts the baby if it doesn't work | 33 | 12 |
| Some women may use it frequently instead of using regular method | 21 | 7.6 |
| Results sterility in the future | 15 | 5.5 |
| If men knows the presence of ECPs they would in force women to use it | 10 | 3.3 |
| It is abortificant | 7 | 2.5 |
| Its use may be illegal | 4 | 1.5 |
| **Person preferred to provide EC** | | |
| Nurses | 284 | 68.1 |
| Physician | 254 | 60.9 |
| Pharmacist | 131 | 31.4 |
| Midwives | 46 | 11.0 |
| Community health worker | 37 | 8.9 |
| Social worker | 7 | 1.7 |
| **Intention to use /recommend EC in the future** | | |
| Yes | 179 | 42.9 |
| No | 238 | 57.1 |

Analysis of determinants of awareness of emergency contraceptives by socio demographic characteristics and reproductive status of woman reviled that employed women have better awareness compared to unemployed woman seeking PAC (OR=2.54, 95% CI=1.29-5.01), also the post abortion care seekers who have concerns about emergency contraceptives have better information about emergency contraception compared to those who don’t have any concern about emergency contraceptives. (OR=0.49, 95%CI=0.26-0.92). Further more study subjects who have an intention to use EC in the future have better awareness compared to those who have an intention to use EC in the future. (OR= 0.32, 95%CI=0.17-0.62) and woman who were ever used contraceptives found having better information compared to those who never ever used contraceptives. (OR= 0.29, 95% CI=0.11-0.74) see table 5 for detail.

Table-5:- Determinants of Awareness of emergency contraceptives among women Seeking PAC, from January-March, 2006 in selected public and private Profit making health institutions in Addis Ababa

|  | Awareness |  | N=417, 95% C.I, |
|---|---|---|---|
| **Variables** | **Yes** | **No** | **Adjusted odd ratio** |
| **Age** |  |  |  |
| 15-29 | 43(14.43%) | 255 | 1 |
| 30-47 | 16(13.45%) | 103 | 0.79(0.37-1.71) |
| **Education** |  |  |  |
| Literate | 56(18.98%) | 295 | 1 |
| Illiterate | 3(4.35%) | 63 | 0.52(0.14-1.95) |
| **Religion** |  |  |  |
| Christians | 52(15.52%) | 283 | 1 |
| Islam's | 7(8.54%) | 75 | 0.80(0.32-2. 00) |
| **Marital status** |  |  |  |
| Never married | 20(16.53%) | 101 | 1 |
| Ever married | 39(13.18%) | 257 | 0.85(0.33-2.15) |
| **Occupation** |  |  |  |
| Unemployed | 32(10.13%) | 284 | 1 |
| Employed | 27(26.73%) | 74 | 2.54(1.29-5.01*) |
| **Pregnancy** |  |  |  |
| Null Para | 18(15.25%) | 100 | 1 |
| Multi Para | 41(13.71%) | 258 | 0.78(0.30-2.07) |
| **Previous abortion** |  |  |  |
| Yes | 24(15.38%) | 156 | 1 |
| No | 35(14.77%) | 202 | 1.80(0.70-4.60) |
| **No. abortions** |  |  |  |
| 0-1 | 42(12.69%) | 289 | 1 |
| 2+ | 17(19.77%) | 69 | 2.46(0.93-6.57) |
| **Wanted pregnancy** |  |  |  |
| Yes | 29(13.36%) | 188 | 1 |
| No | 30 (15.08%) | 169 | 1.07(0.35-3.33) |
| **Induced abortion** |  |  |  |
| Yes | 25(16.13%) | 130 | 1 |
| No | 34(13.13%) | 225 | 1.29(0.41-4.10) |
| **Concerns about EC** |  |  |  |
| Yes | 40(21.39%) | 147 | 1 |
| No | 19(8.30%) | 210 | 0.49(0.26-0.92*) |
| **Ever used CO** |  |  |  |
| Yes | 52(18.06%) | 236 | 1 |
| No | 7(5.43%) | 122 | 0.29(0.11-0.74*) |
| **Intention to use EC in future** |  |  |  |
| Yes | 42(23.46%) | 137 | 1 |
| No | 17(7.14%) | 221 | 0.32(0.17-0.62 *) |

## 7.7. The role of Health care providers in promotion of emergency Contraceptives

Five governments and three private profit making health facilities family planning unit heads/representatives were interviewed in in-depth using semi structured questionnaire to assess the role of the respective health institutions and staffs in promotion of emergency contraceptives. In almost all government hospitals at least one nurses or midwives, in some both nurses and midwives working in the units and obstetricians and gynaecologists were trained on emergency contraceptive methods and they have enough supply of emergency contraceptive pills and IUCD according to their responses.

They give heath education individually for clients in family planning clinics but not yet have started teaching in groups. Some of health care providers have indicated as they do not feel comfortable in discussing sexual matters or about EC in-group health education rather they prefer individual counselling of clients.

In some of the health institutions male clients visit the clinic for emergency contraceptive service frequently than females because females afraid to request prescriptions for ECPs, and as one of the health care provider stated as some of male health works and clients request for prescription of emergency contraceptives to take home for their partner in order to use when the need arise. Some of the health care providers mentioned that, as they don't feel comfortable with such type of questions considering that they may misuse the ECPs.

Emergency contraceptive service provided through out 24 hours in public health facilities where the research was conducted. The emergency department of the outpatient provide emergency contraceptives services on holydays weekends, evening and night in case the client comes for emergency contraceptive.

The unit heads claimed that at present the public lacks awareness about the availability of the service and the number of clients demanding for ECPs were very low, ranging from 10-20 clients per month while on the other hand clients seeking Post abortion care due to unplanned pregnancy ranges from 2-3 per day on average. They asked for training of more staffs on provision of emergency contraception and also to increase public awareness using mass Medias. Some of the unit heads have shown concerns about the sustainability of the service because the supplies at present are from NGOs and professional associations.

In private hospitals there are no trained health personnel or supplies. The interviewed unit heads were not aware of availability of the methods. They raised questions to get training and supplies in order to provide the service. In one of private hospitals when women come with complaint of unprotected sex, they would prescribe prudence or combined oral pills.

## 8. Discussion

Although emergency contraception is not recommended as routine family planning method it is a useful method to reduce the chance of unwanted pregnancy following unprotected sexual intercourse. Emergency contraception is most useful when there is failure of barrier methods such as slippage or breakage of condom or when sexual intercourse occurs unplanned. However women need to know emergency contraception and should be willing to use it before it can be ineffective. (13)
The proportion of unwanted pregnancies, 199(47.7%) and similar with other studies done in nine administrative regions health facilities in 2000 by ESOG which was 49%,.and higher than that of Addis Ababa's in and 2003 , 38.9% finding (2, 23).
The rate of induced abortion 155(37.2%) was higher than the findings of ESOG in 2000 studies, 25.6 %( 1, 2)

Among women seeking post abortion care 361(86.6%) knew at least one contraceptive method and. This finding matches with other study done in 2000 by ESOG in nine administrative regions health facilities, 87% and higher than the findings in Addis Ababa 77.3%(2, 23). Contraceptive ever used among post abortion care seeker accounts about 288 (69.1%), this result is somewhat higher than the results of ESOG in 2000 and that of the Addis Ababa's finding of 2003 which were 50% and 53% respectively. (2, 23)

Adolescents between 15-19 years of age who ever used contraceptives were not more than 30 (7%) of all cases, whereas 33(21%) of induced abortion had occurred among them because they had used contraceptive methods not much reliable like that of condom, withdrawal and rhythm method more frequently, 18(58%) of the all methods ever used by this group. Further more 60(39%), and 32(21%) of induced abortions were among age groups 20-24 and 25-29 years of age who inconsistently or incorrectly used contraceptive methods though the highest proportion of contraceptive ever used was in this age group. The commonest reason for occurrence of unwanted pregnancies as cited by the study subjects who had unwanted pregnancy were forget to take pills' 60(30%), rape (forced to have sex) 38(19%), pressure from partner 32 (16%), lack of knowledge of contraceptive methods 16(8%) and rupture of condom10 (5%) and also various reasons such as old age, health problems and having sex occasionally. Furthermore 348 (83.5%) of the study subjects not used contraceptives during the index pregnancy and 218(52.3%) claimed that the pregnancy was wanted.

Rape accounts for 38(19%) unwanted pregnancy among the study subjects and higher than the finding of ESOG in 2000 in nine administrative regions, health facilities (3%). (2) In this study rape is found to be the major cause of unwanted pregnancy following forget to take pill 60(30%). These reflect the need of emergency contraceptives to prevent raped women from carrying unwanted pregnancies to unwanted birth or induced abortion and its consequences.

This study shows that many women 358(86%) among those who seek post abortion care were not aware of the availability of the emergency contraceptives. Result of similarly studies in Turkey and India have showed that the awareness of women about emergency contraceptives being low among those who were looking for termination of pregnancies. (25, 26) Additionally those who have heard of the availability of emergency contraceptives 32(54%) almost more than half of them did not have enough knowledge to use emergency contraceptive pills. This finding also corresponds with other studies done in Sweden and Hungary. (17, 20)

The utilization of emergency contraceptives in this study was very low, 15(3.6%). This is quiet unfortunate considering the high prevalence of unprotected sexual intercourse because of forgetting to take pill, rape, use of less reliable contraceptive methods and not using contraceptives at all for different reasons in the study population.

The large number of induced abortion 155(37.2%) is indicator of the unmet need for contraceptive usage and hence it is the indirect indicator of emergency contraceptives need.

Many women of post abortion care seekers 187(44.8%) had identified concerns that ECPs harm the users health or that of the baby which may reflect lack of knowledge or understanding about the side effects of emergency contraceptives pills. Providing appropriate information on EC would alleviate fears potential harms and clients would be willing to use or recommend ECPs. Of clients 179(42.9%) were willing to use or recommend emergency contraceptives for friends and relatives in the future when the need arises. (30, 31)

Few trained health care providers one or two were available to provide EC in the public heath institutions, while this was not seen in the private health institutions, where this study was conducted.

Despite the availability of Emergency contraception service in the public health institutions where this study was conducted very small clients ranging from 10 to 20 were visiting these health institutions for the service per month in spite of high proportion of induced abortion (37%). The majority of the clients come to the health facilities after 72hrs of unsafe sex at which ECPs is not more effective. This may reflects lack of information among post abortion care seekers.

As it was indicated by some of health care providers being uncomfortable in providing health education about emergency contraception in-group and provision of emergency contraceptive pills in advance for those who demand to use some time when they need my hinder the promotion of emergency contraceptive though the magnitude was not identified.

Each woman who is treated for abortion and related complication should get information and counselling to help her understand the presence of safe and effective methods to prevent or delay pregnancy .The timing of post abortion family planning counselling and service provision is immediately at discharge. (36) Of 180(43.2%)of

PAC seekers who had history of abortion in the past and those who have no history of abortion in the past 237(57.8%) were interviewed after they have completed their treatments which excepted to include post abortal family planning counselling and teaching on contraceptives. (36) But as it was identified in this study only 59(14.1%) of women who have received post abortion care in the respective health facilities have information about emergency contraception. This may indicate poor performance of health care providers about teaching their clients on emergency contraceptives.

This study identified as a lot has to be done to increase the awareness, knowledge and utilization of emergency contraceptives of clients as well as health care providers, which is especially relevant, where maternal mortality is substantially high.

# 9. Strengths and Limitations of the Study

## Strengths

In an attempt to keep the validity and reliability of the results data was collected from five public and three private hospitals that were believed to represent post abortion care seekers and mixed methods of study were employed also experienced and trained data collectors were used.

## Limitations

Purposive (none probability) sampling method was employed, which is commonly used method for such studies though it restricts further analysis of data and generalization of the result to the source population.

## 10. Conclusion

In this study despite high level of awareness about family planning methods, ever use of contraceptives is low. This may clarify that awareness does not always leads to use of contraceptives. Hence a lot of educational and motivation activities and improvement in family planning service are needed to promote the use of contraceptive and reduce high rate of induced abortion and maternal mortality.

The main reason of unwanted pregnancy in this study includes lack of adequate motivation to use the methods properly and failure to use reliable methods (miss-calculation of date, rupture of condom, failure of withdrawal). To reduce or avoid these problems nurses and midwives who work in family planning services should assist women in selecting appropriate and effective methods of contraception and emergency contraception.

The high prevalence of rape for cause of unwanted pregnancy indicates the need of emergency contraception services.

Low level of awareness of emergency contraceptives in exit interview may indicate post abortion family planning counselling or teaching of clients particularly on emergency contraceptives and in general contraceptive methods lack some attention.

Women who were aware of the availability of emergency contraceptives lack knowledge on the time limits of taking EC after unprotected sex, how and where to obtain methods. In addition, utilization of EC is very low despite high proportion of unwanted pregnancies and induced abortions that may have resulted from lack of knowledge about emergency contraceptives. If the women had enough awareness and knowledge about emergency contraceptive methods, unwanted pregnancies and their consequences would have been reduced substantially. Health care providers and other concerned bodies need to work to create public awareness so that women are made aware of emergency contraceptives.

## 11. Recommendations

As the study clearly indicated, knowledge and utilization of emergency contraception is low beside the availability of the service in public health facilities , to improve this situation the following has to be given due attention.

- Strengthening of IEC to increase awareness and knowledge of clients about emergency contraceptives and other contraceptive methods.

- Scaling up of the training of health care providers on the provision of emergency contraceptives to improve their client education practices.

- Due attention for the sustainability of the service which is the present concern of health care provides and clients.

- Emergency contraception has to be given consideration in post abortion family planning counselling.

- Strengthening of emergency contraceptive service required as rape was identified the major cause of unwanted pregnancy among the study subjects.

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