ADDIS ABABA UNIVERSITY

COLLEGE OF HEALTH SCIENCES

SCHOOL OF PUBLIC HEALTH

Utilization of Post Abortion Family Planning and Associated Factors among Women Coming to Abortion Service in Selected Abortion Clinics at Addis Ababa, Ethiopia

By:

Mahlet Kassahun (BSC)

(Student ID- 1285)

Advisor: Dr.GirmaTaye

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Statement of the Author

First, I declare that this research thesis on the title "**Utilization of post abortion family planning and associated factors among women coming to abortion service in selected abortion clinics at Addis Ababa, Ethiopia**" is my genuine work and that all sources of material used for thesis have been duly acknowledged. I have followed all ethical principles of scholarship in the preparation, data collection, data analysis and completion of this thesis. This thesis has been submitted in partial fulfillment of the requirements for the Master of public health at Addis Ababa University, College of Health Science, School of Public Health, department of Preventive Medicine. I also declare that this thesis is not submitted to any other institution anywhere for the award of any academic degree, diploma, or certificate.

Declared by,

Name: Mahlet Kassahun

Signature: ----------

Date: ----------

College of Health Science, School of Public Health, Department of Preventive Medicine

Statement of Certification

As an advisor of the final MSC thesis, I approved that, I have read and evaluated the thesis prepared by Mahlet Kassahun, entitled with "**Utilization of post abortion family planning and associated factors among women coming to abortion service in selected abortion clinics at Addis Ababa, Ethiopia**" under my guidance. I recommend that this study is her own work and it is being accepted as fulfilling the thesis requirement for the degree of Masters of Science in Public Health.

Approved by,

Name ----------

Signature ----------

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Statement of Approval

Addis Ababa University

College of Health Science, School of Public Health

This is to certify that the thesis prepared by Mahlet Kassahun entitled with "**Utilization of post abortion family planning and associated factors among women coming to abortion service in selected abortion clinics at Addis Ababa, Ethiopia**", submitted for the partial fulfillment of the requirement of the Masters of public health fulfills rules and regulations of the university and meets the required standards. Hence, all the materials contained have been fully acknowledged.

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Chair Person: _____signature:_____date:_____

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List of Acronyms and Abbreviations

AAU	Addis Ababa University
CI	Confidence Interval
IUCD	Intra uterine Contraceptive Device
MMR	Maternal Mortality Rate
MOH	Ministry of Health
MSC	Marie Stop clinic
NGO	Non-Governmental Organization
OR	Odds Ratio
PAC	Post Abortion Care
PAFP	Post Abortion Family Planning
RHB	Regional Health Bureau
SAC	Safe Abortion Care
SPH	School of Public Health
SPSS	Statistical Package for Social Science
WHO	World Health Organization

Abstract

Introduction: Abortion is one of the top leading causes of maternal death in the world especially in developing countries. Unwanted pregnancies which end up in abortion occur due to contraception method of nonuse or misuse. To decrease unintended pregnancies and avoid repeated abortions advancing immediate post abortion contraception is crucial.

Objective: To assess utilization of post abortion family planning and associated factors among women who came for abortion service at selected abortion clinics at Addis Ababa, 2017.

Methods: Cross sectional study was conducted among a total of 459 women who came to abortion service at selected clinics using pre tested structured questionnaire from January 2017 to April 2017.A total of 5 clinics were selected purposely based on their history of abortion management. And the study participants were selected by using systematic random sampling technique. Data entry and cleaning was done with Epiinfo 3.51 then exported to SPSS software for analysis. Binary and multiple logistic regression was applied to see the association between independent variables with Post abortion family planning practice using Odds ratio, 95% confidence interval (CI) and p value $\leq$ 0.05 and $P < 0.2$ for multiple and binary logistic analysis respectively.

Results: Among 459 study subjects 316 (68.8%) of respondents have utilized post abortion family planning (PAFP). Single women were five times (AOR=5.389, CI (2.413-12.034) more likely to utilize PAFP than the divorce/widowed women and also married women were found three times (AOR = 3.329, CI (1.462-7.583) more likely to accept PAFP than divorced/widowed. In this study women who did not get counseling were 99.5% (AOR = 0.005, 95%CI (0.001-0.036)) less to accept PAFP compared with women had been counseled.

Conclusion: More than 68.8% of women who came for abortion care service accepted post abortion family planning. Marital status, income, PAFP information, abortion history and counseling were found to be determinant factors. As most of the clients are young, providing focused RH, youth and friendly service and family planning awareness creation activities in schools by integration of efforts among teachers, parents and MOH (RHB) and other stake holders will enable them of prevent un wanted pregnancy and abortion.

Key words; Utilization of PAFP, Ethiopia, Post abortion

1. INTRODUCTION

1.1. Background

Post abortion family planning: - is the initiation and use of family planning methods immediately after, and within 48 hours of an abortion, before fertility returns. In most women fertility returns on average about two weeks after an abortion; however, ovulation can occur as early as 11 days post-abortion [1].

Abortion is an issue, which affects every country in the world and countries where abortion is criminal act [2]. In Ethiopia; the coverage of family planning among married women was 27% with around 25% of unmet need [3]. Post abortion family planning utilization remains a better and sensitive time to provide better realization to the women and partner that family planning measures can save their time, pain and resources. Provision of post abortion counseling and contraception is also needed to meet the service standard [4].

In Ethiopia, as throughout the world, low levels of contraceptive use lead to high levels of unintended pregnancy, the root cause of induced abortion. The first nationally representative study in Ethiopia, conducted in 2008, revealed that 42% of all pregnancies were unintended, and an estimated 382,500 induced abortions were performed over a 1-year period, for an annual rate of 23 abortions per 1,000 women of reproductive age [5].

Post-abortion family planning programs should be offered to all women equitably, regardless of factors such as their age, marital status, or ethnicity and the programs should be able to respond to a broad range of women's health concerns, including management of reproductive tract infections (RTIs), for prenatal care, or investigation and treatment of infertility [1].

Research areas regarding the post abortion family planning utilization among abortion clients' need further studies. Therefore, this study aimed to assess prevalence and factors

associated with post abortion family planning utilization among women who came for abortion care service.

1.2. Statement of the problem

The main strategy in decreasing abortion related maternal mortality, to improve maternal health and survival is PAFP.PAFP is one of the recommended preventive techniques to reduce post abortion morbidity and mortality.

In 2008, among women seeking induced abortion, only 24% reported contraceptive use prior to the current pregnancy in Ethiopia.

It is estimated that as many as 95% of unintended pregnancies in Ethiopia occur among women who do not practice contraception at all [6]. The National Demographic and Health Survey in 2011 found that one of every four married women had an unmet need for family planning, and nearly 29% of most recent births and current pregnancies were reported as either mistimed or unwanted [7]. The estimated abortion rate for Addis Ababa in 2008 was 49 abortions per 1,000 women of reproductive age, which is more than twice the national rate of 23 abortions per 1,000 women of reproductive age.

Contraception following an induced abortion is highly recommended for preventing another unintended pregnancy and repeat abortion; because even repeated safe abortion is still associated with negative subsequent health consequences like increased risk of subsequent placenta previa, ectopic pregnancy, preterm birth, and possibly sub fertility and breast cancer, thus increasing modern and long-acting contraceptive utilization is optimal [8]. If contraception were accessible and used consistently and correctly by women wanting to avoid pregnancy, maternal deaths would decline by an estimated 25–35% [9].

Moreover, post abortion family planning assists in reducing child mortality. Children whose mother dies are much more likely to be ill and die themselves than a child whose mother remains alive [10].For many post abortion patients, the lack of family planning counseling and services quickly leads to another induced abortion, because fertility returns within two to three weeks after miscarriage or induced abortion. This makes it

essential to ensure that post abortion family planning counseling and service delivery are offered to all women who present for emergency obstetric or post abortion care, regardless of the method of treatment [11].

The 2015/16 annual report of Ministry of Health showed that, about 155,214 and 33,626 clients have got comprehensive abortion service from abortion clinics in Ethiopia and Addis Ababa respectively. But there is limited study on this topic even if post abortion contraception is mandatory, little is known globally or regionally about the number of women who adopt contraception following an induced abortion. It's hoped that this study will give insight about PAFP in the area. Therefore, this study had aimed to assess the prevalence and factors associated with post abortion family planning utilization among women who came for abortion service in selected abortion clinics at Addis Ababa city.

1.3. Significance of the study

The purpose of this study is to describe utilization of PAFP and identify factors that are associated with PAFP. PAFP is by far the best way to reduce maternal mortality, especially in the developing country. It is the simplest and most efficient way to deliver good sexual and reproductive health.

The National Demographic and Health Survey lacks to show significant factors that are associated with PAFP and there were limited studies conducted in this area that focus on PAFP and associated factors in Addis Ababa. Therefore, the study is important in providing information for government policy makers and NGOs to develop relevant interventional strategies and it may encourage other researchers and policy makers to carry out a more extensive research in this particular area. Therefore, findings of this task are expected to facilitate access for post abortion family planning method and increase the proportion of users of the service.

2. LITERATURE REVIEW

2.1. General situation about PAFP

To combat the major maternal health problems and tackle unwanted pregnancy, family planning is the most important method. The consequences of unsafe abortion are not limited to mortality alone: - the burden on women's livelihoods, their families and communities, and on the scarce resources of the health system is undeniably enormous. Yet few studies have tried to address the impact of morbidity from complications of unsafe abortion, including acute and chronic pelvic infection and infertility and the cost implications of unsafe abortion for the health facilities [1].

Evidence has shown that introducing a wider range of contraceptive methods in PAFP significantly increases the proportion of clients leaving the facility with a method [12, 13]. The high unmet need for contraception coupled with high numbers of safe and unsafe abortions testifies to the need for stronger routine contraceptive services and highlights the potential benefits of strengthening post abortion contraceptive services. Post abortion family planning (PAFP) involves provision of voluntary contraceptive counseling and methods to women after abortion care, whether for induced abortion or the treatment of complications from an unsafe abortion, to reduce unintended pregnancies and repeat abortions. International organizations in the field of reproductive health and health researchers have posited that PAFP services that respect women's sexual and reproductive rights are an ideal way to reach sexually active women with unplanned pregnancies, including young women who may have had limited exposure to modern contraception [5,14].

Studies and interventions conducted in different parts of the world have shown that PAFP improves women's knowledge of the benefits of contraception and increases uptake of contraceptive methods immediately after abortion, when return to fertility is almost immediate. Women's motivation to continue using a method is also likely to increase after leaving the facility [15, 16].

In Pakistan Medical records of 17,262 women seeking PAC as a result of incomplete abortion and treatment for complications arising from unsafe abortions were analyzed.

High post abortion contraceptive use (72.9%) was observed amongst the women who had sought for PAC services. Where, 66% of the women opted to use short-term methods. The rest (33.5) considered long-term reversible IUD and implant as their method of choice and only 0.4% had undergone voluntary sterilization. The study highlights the importance of strengthening post-abortion family planning services in the country which will not only contribute in increasing the overall contraceptive use in the country but will also prevent high unintended pregnancies that may ultimately lead to induced abortions [17].

In Addis Ababa analysis of the medical service records of 1,200 women seeking abortion related services using data collected prospectively from October 2008 to February 2009 in four public and three private health facilities. Abortion clients who left the intervention facilities with some form of contraception are 86% [18].

A facility-based cross-sectional study was conducted from January 10 to April 13, 2015 among women who had attended antenatal care at Gelemso General Hospital. Out of the 413 pregnancies, 112 (27.1 %) were unintended of which 90 (21.9 %) were mistimed, and 22 (5.2 %) were unwanted [19].

Institutional based cross-sectional study was undertaken in 6 health institutions in Debre Markos town from August 2014 to October 2014. The rate of the post abortion contraceptive utilization among 414 clients was (59.2%) [20]. It was reported that, abortion clients who left the intervention facilities with some form of contraception, are 83% in Southern Nations and Nationalities and People's Region (SNNPR), Ethiopia, 2014 [21].

Institutional based cross-sectional study which was conducted in Gambela town in 2015 revealed that 399 study participants had participated and post abortion utilization rate was 72.9%. [22]. A facility based cross sectional study design was implemented from December 2015 to January 2016 in public, NGO and private health facilities of Jimma town. Post abortion family planning utilization was 70.1% [23].

2.2. Magnitude of abortion

Each year, approximately 303,000 maternal deaths had occurred worldwide. Among 99% (302,000) of these deaths occur in developing countries from which Sub-Saharan Africa accounts for 66% (201,000) of the maternal death burden [24]. The World Health Organization (WHO) estimates that, worldwide, almost 20 million unsafe abortions take place each year**.** Due to abortion complications 80,000 maternal deaths per year are thought to occur which accounts for about 13% of all maternal deaths in the world [25].

The World Health Organization (WHO) estimates that every year, nearly 5.5 million African women have an unsafe abortion. In Eastern Africa it is estimated that 18% of all maternal deaths are the result of complications of poorly performed abortions [26]. In Ethiopia, the Induced abortion rate was estimated to be 23 Per 1,000 women in reproductive age group in 2008, and 101 per 1,000 was rate of unintended pregnancy [5]. The high proportion of unintended pregnancies contributes to one of the highest maternal mortality ratios in 676 maternal deaths per 100,000 live births. Family reduces maternal mortality by enabling women to prevent conception [27]. Even if a woman wants to have a child immediately, WHO guidelines recommend that she has to wait at least six months after an abortion before getting pregnant again [28].

In many developing countries, giving attention and solving the problem of abortion is a low priority for the health service managers. Unsafe abortion is not only a medical problem but also a social problem. Different sectors should be involved in solving this problem [29]. Millennium Development Goal (MDG) 5, announced in 2001, is an internationally agreed-upon imperative to reduce maternal mortality by 75% from its 1990 level by the year 2015 and SDG 3.1, announced in 2015 reduce maternal mortality to < 70%. As a significant proportion of mortality is due to unsafe abortion, this goal probably cannot be met without specific and direct programmatic efforts to reduce the impact of unsafe abortion [30, 24].

The majority of cases recorded in the logbooks were in the first trimester (≤ 12 weeks) in both regions: 88% in Africa and 97% in Asia. In Africa, 63% of UEs were for induced abortion and 37% for PAC. In Asia 74% of the UEs were for induced abortion and 26%

for PAC [31]. In 2008 an estimated 382,000 induced abortions were performed in Ethiopia, and 52,600 women were treated for complications of such abortions. There were an estimated 103,000 legal procedures in health facilities nationwide 27% of all abortions.

A facility based cross sectional study design was implemented from December 2015 to January 2016 in public, NGO and private health facilities of Jimma town. South Western Ethiopia showed that the problem of induced abortion is quite significant in the area. Among the total of 80 patients with a diagnosis of induced abortion, 50 (62.5%) were admitted for bleeding and infections [32]. A cross sectional study (February 1, 2002 to January 31, 2004) was conducted on 907 patients with diagnosis of abortion and admitted to the gynecological ward of Adigrat zonal hospital, the 907 cases of abortion accounting for 60.6% of gynecological admissions and 12.6% of all hospital admissions (leading cause of admission to the hospital). During the same period, 2141 mothers delivered in the hospital, making the rate of abortion 424 per 1000 deliveries [33].

The common cause for induced abortion is unintended or unwanted pregnancy due to varied reasons. Non-use and misuse of contraception are the major reasons. Contraceptive prevalence rate (CPR) is 63.1%, 25.4% and 28% in the world, Africa and Ethiopia respectively. This indicates that there is low utilization of contraception in Africa and Ethiopia. The low level of contraceptive use leads to high levels of unintended pregnancy which need an intervention to increase CPR.

2.3. Determinants of PAFP among women came to abortion service

There are several reasons that determine women's utilization of PAFP. These determinants are different from place to place. The study in Pakistan women's education, women's occupation status, monthly family income, first time visitors to the center, previous contraceptive use, and type of PAC treatment provided, women's health condition after post-abortion treatment showed significant associations with the uptake of contraception [17].

In Peru and Turkey, studies showed that institutions that have strengthened the family planning component of PAC have sustained or improved family planning counseling and services well after technical assistance ended. In Peru, over 80% of post abortion clients received a method prior to leaving the facility three years after the initial technical assistance ended [34].

A study in Kenya that tested three models of providing post abortion family planning found that providing family planning counseling and methods on the ward was the most effective, acceptable, and feasible model. Studies in Cambodia and Tanzania also had found that PAC clients served in facilities with on-site family planning services were significantly more likely to accept a contraceptive method than clients served in facilities that refer for family planning services [35].

In Addis Ababa results illustrate that women aged 40-44, students, employed women, receipt of services in private clinics, number of children and number of previous abortions were significantly associated with the odds of adopting any modern contraceptive post-abortion. The odds of choosing a long-active contraceptive method were significantly and positively associated with being age 25-29, attaining secondary or higher education, and number of children. Improved services and information along with reliable access to modern and long-acting contraceptives can reduce the need to use abortion to control fertility among women in Addis [18].

In Debre Markos being married, secondary and higher education and post abortion family planning counseling were found to be factors associated with post abortion contraceptive utilization [20]. In Gambela women with the age groups 20-25 had 1.6 [(OR= 1.6, 95% CI (0.99, 2.39) times higher odds of Post abortion family planning utilization than the 20-24 age groups respondents that have educational status of tertiary and above and those who counseled were 2.1 [(OR= 2.1, 95% CI (1.30, 3.36) and 3.3 [(OR= 3.3, 95% CI (1.9, 5.6) higher odds of post abortion family planning utilization than the illiterates and those didn't counseled respectively. Age, marital status, educational status, PAFP counseling and previous history of abortion were the significant factors to PAFP utilization [22].

In Jimma significant association was observed on bivariate logistic regression between post abortion family planning utilization and being in age group from 18 to 24 years, married and monthly income [23].

2.4. Conceptual Framework of the Study

Conceptual framework on post abortion contraceptive acceptance and associated factors

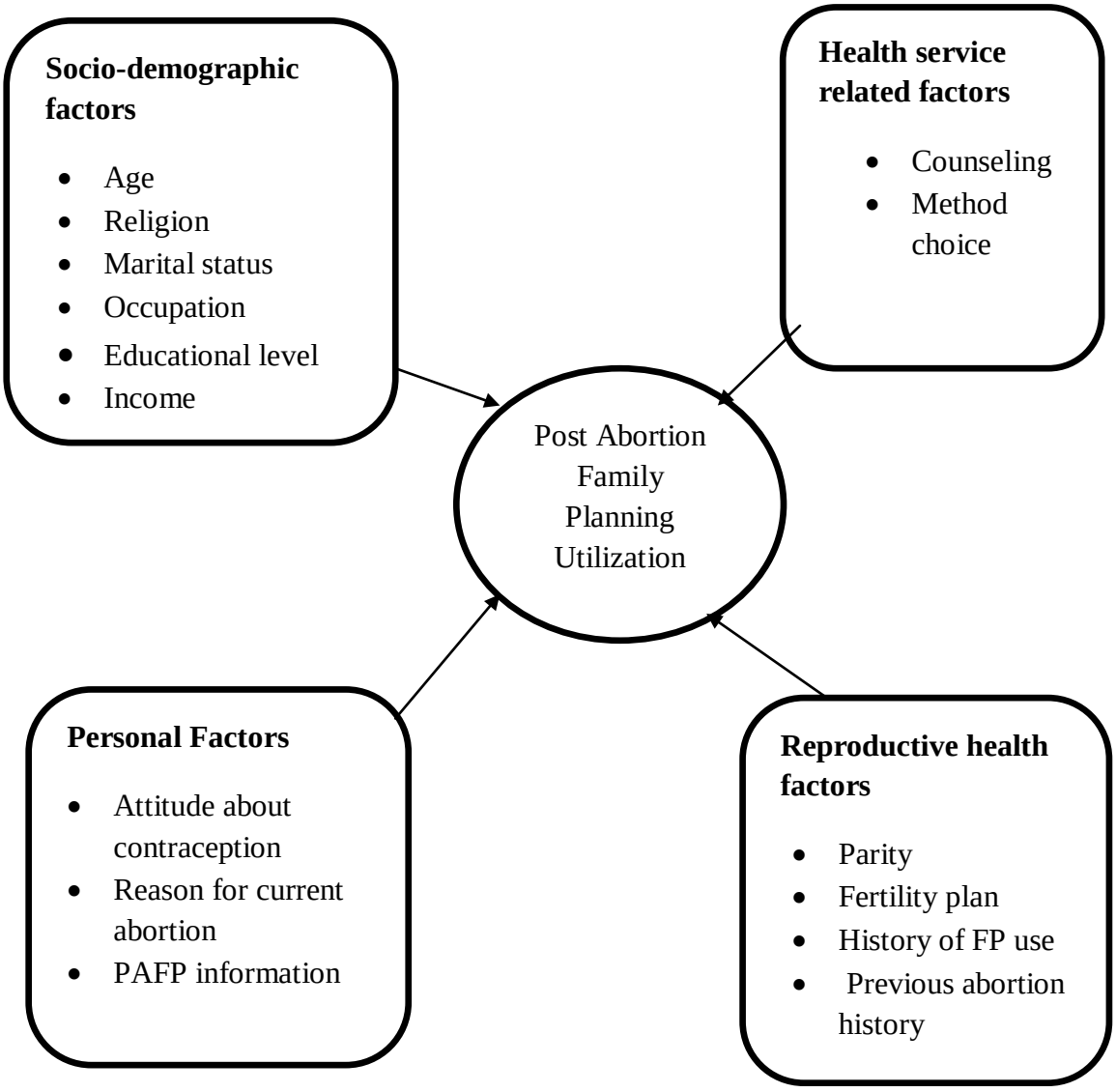

Figure1: Conceptual framework on post abortion family planning utilization and associated factors, Addis Ababa 2017

Source: adopted from the reviewed literatures

3. OBJECTIVE OF THE STUDY

3.1. General objective

To assess utilization of post abortion family planning and associated factors among women who came for abortion service in selected abortion clinics at Addis Ababa.

3.2. Specific objectives

- To determine the magnitude of post abortion family planning among women who came for abortion service in selected abortion clinics in Addis Ababa, Ethiopia.
- To identify factors associated with post abortion family planning use among women who came for abortion service in selected abortion clinics in Addis Ababa, Ethiopia.

4. METHODS AND MATERIALS

4.1. Study area and period

The study was conducted in Addis Ababa, the capital city of Ethiopia with total population of more than 3 million. There are ten sub cities and 116 woredas. The city has 6 hospitals and 84 health centers under Addis Ababa city administration health bureau, 5 specialized referral hospitals, 2 defense forces referral hospitals and 1 Federal police hospital under respective government organizations. In addition there are 2 hospitals, 3 health centers and 31 different levels of clinics established by non-governmental organization (NGOs). Also there are 30 private hospitals and more than 700 different level private clinics in Addis Ababa city administration.

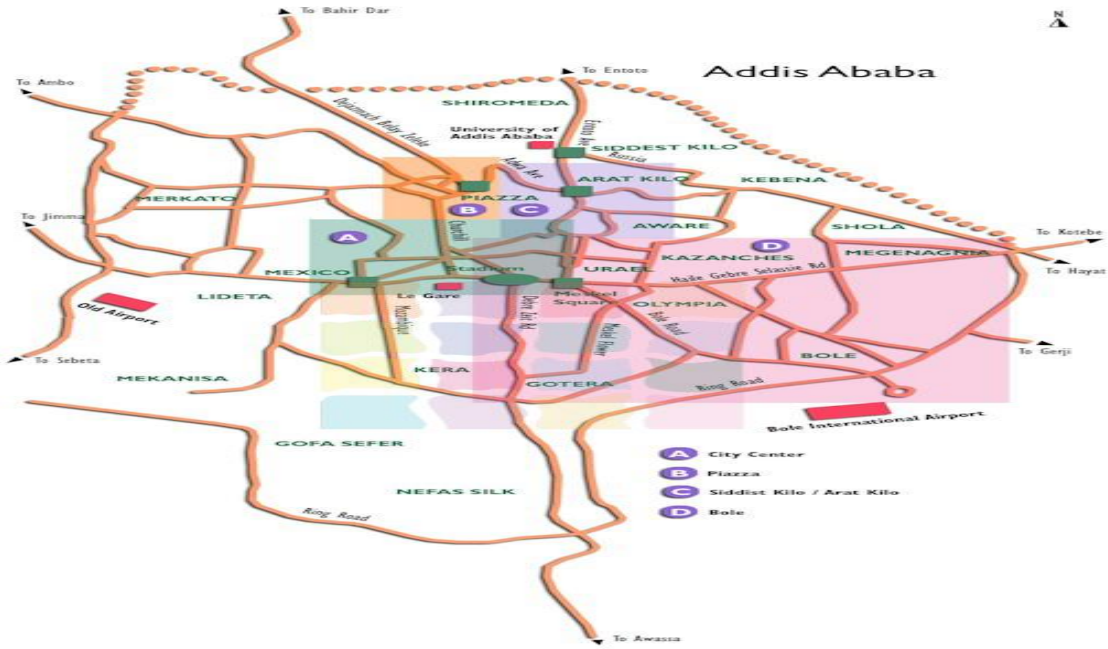

Figure2: Map of Addis Ababa, destination 360 map data, www.destination 360.com

4.2. Study design

Facility based cross-sectional study design was used.

4.3. The study period

The study was conducted from January 2017 to April 2017.

4.4. Population

4.4.1. Source population

The source population comprises of all women who came to abortion service in selected abortion clinics in Addis Ababa.

4.4.2. Study population

Women who were systematically selected from the source population and meet the inclusion and exclusion criteria were included in the study.

4.4.3. Inclusion and exclusion criteria

4.4.3.1. Inclusion criteria

Pregnant women who came to abortion service during their current index pregnancy and willing to participate.

4.4.3.2. Exclusion criteria

Women who were sick and unable to give the response, not volunteer to participate and a client whose gestational age is greater than 28 weeks were excluded from the study.

4.4.3.3. Sample size determination

The sample size was determined by using single population proportion formula assuming PAFP utilization of 72.9% from a study conducted in Gambela [28]. Assuming 5% margin of error, 95% confidence interval and 10% non -respondent rate, sample size was calculated for the outcome variable.

Table 1: Sample Size determination for the general objective

Outcome variable	P	q(1-p)	Margin of error%(d)	Za/2,95%CI	Non response rate %	Design effect	Final sample size(n)
PAFP utilization	0.729	0.271	0.05	1.96	0.1	1.5	501

$n = Z_{\alpha/2}^2 \times P(1-p)/d^2$

n = Sample size

Z α/2 = Confidence interval = 95%

d = Margin of error = 5%;

P = prevalence of post abortion family planning =72.9%

Non-response rate of (10%)

For the specific objective sample size was calculated by double proportion population formula using Epi Info version 7.

Table 2: Sample size determination for the specific objective

Variables	P_2 (%)	AOR	Ratio of unexposed to exposed	Confidence interval%	Power%	Non response rate (%)	Design effect	Final sample size
Literacy	37	2.1	1	95	80	0.1	1.5	272
PAFP counseling	68.8	3.3	1	95	80	0.1	1.5	423

P_2= proportion of PAFP utilization among non-exposed

AOR=Adjusted odds ratio

Ratio of unexposed to exposed= 1:1

Confidence interval= 95%

Power= 80%

Non response rate=10%

Design effect= 1.5

Finally the largest sample size which is 501 women seeking abortion care were included in order to address the objectives.

4.5. Sampling procedure

Clinics were selected purposely based on their history of abortion management. Two public and three NGO clinics were selected. The sample size in each health center was proportional to population size. The study participants were selected by using systematic random sampling technique.

To calculate the sampling interval (K), the average number of women who came to abortion service at selected clinics per day was divided by the number of women required in each clinic. By using lottery method choice of the starting point was made and the next participant was determined by the sampling interval. If the selected individual does not fulfill the inclusion criteria, such was replaced by the next client and the interval continued accordingly.

Table 3: Sampling table of the study population

Selected NGO clinic	No of women came to abortion services in selected clinics last month (N)	Average women daily seen in each selected clinics last month (n')	No of women required in each selected clinics (n)	No of women required in each selected clinics per day. (n'')	The sampling interval (K)
Paisa MSC	1561	71	173	17	4
Gandhi Hospital	160	7	18	2	4
Family guidance association of Ethiopia (Arada)	556	25	65	7	4
Kirkos MSC	1361	62	151	15	4
Meshualekia Public	850	39	94	9	4

Where,

N= Number of women's registered in the last month in each public and NGO (data from clinics).

n = number of women's required for this study from each clinics (calculation proportion to population size)

n' = average number of women's per day came to abortion service last month (data from each clinics).

n'' = number of women's required in each selected clinics (by dividing n to number of data collection day)

K = sampling interval calculated by n'/n''. By using the lottery method can choose the starting point and the next participant was determined by sampling interval.

4.6. Data collection tool and data collection procedure

A structured questionnaire was developed after reviewing the relevant literatures and used for data collection. The questionnaire was initially prepared in English and then translated to Amharic language, and was translated back to English to check for any inconsistencies. Data was collected by three nurse professionals. For data collectors and supervisors relevant training was given by the investigator to make them familiar with the data collection tool. The questionnaire has contained socio demographic characteristics, previous reproductive health history, and future fertility desire and post abortion family planning service related questions. Data was collected after obtaining informed consent from the study participants by interviewers. Completeness of questionnaire was regularly checked and finally the reviewed questionnaires were returned to the principal investigator.

4.7. Data analysis procedures

Data entry was done using Epi info version 3.51. The entered data was cleaned and exported to SPSS for data analysis. Different frequency tables, graphs and descriptive summaries were used to describe the study variables. Binary and multiple logistic regressions were used to analyze the association between PAFP utilization and various socio-demographic and reproductive health variables. Odds ratio and confidence interval was used to measure the strength of associations. The results were considered statistically significant at $p < 0.2$ and $P \leq 0.05$ for binary and multiple regressions respectively.

4.8. Data quality management

To assure the data quality, data collection tool was prepared after intensive review of relevant literatures and similar studies. Training was given for both data collectors and supervisors by the principal investigator. Pre-testing of the questionnaire has been carried out on the 5% of sample size in the health center that is not included in the study. Based

on the result obtained necessary modification was made. The completeness of the data was checked by data collectors during data collection and also immediately after data collection by the supervisor and principal investigator.

4.9. Study Variables

4.9.1. Dependent Variable

- post abortion family planning utilization

4.9.2. Independent variables

- Socio-demographic characteristics such as age, marital status, educational level, occupation and monthly income,
- Previous history variables: (parity, fertility plan, FP use history, previous abortion history),
- Present history variables: (post abortion FP counseling, reason for current abortion, PAFP information),
- Post abortion family planning choice

4.10. Operational Definitions

FP utilization: use of modern family planning method among clients for abortion care in the health facility within 48 hours.

Abortion: refers to the termination of pregnancy from whatever cause before the fetus is capable of extra uterine life.

Safe abortion: abortion performed by qualified persons using correct techniques and under sanitary conditions.

Unsafe abortion: is defined as a procedure for terminating unwanted pregnancy either by persons lacking the necessary skills or in an environment lacking the minimal medical standards or both (WHO)**.**

Induced abortion: refers to termination of pregnancy through a deliberate intervention intended to end the pregnancy

Post-abortion family planning: is the initiation and use of family planning methods immediately after, and within 48 hours of an abortion.

Post abortion care: abortion care given to whom seeking care after initiation /induction of abortion.

Compressive abortion care: abortion care service, which includes both safe and post abortion care.

Information: hearing about family planning before coming to clinic**s.**

Knowledge: awareness about any one or more of modern family planning at the time of the study gained through information or exposure to FP education or any information source.

Attitude: favorable or unfavorable perception towards any family planning methods.

4.11. Ethical Consideration

Ethical clearance was obtained from Ethical Review Committee of the School of Public Health, Addis Ababa University. Formal letter was written from the University (SPH) to the respective health offices and study facilities before going for data collection. Participants of the study were briefed about the objectives and aims of the study in detail. Participants were informed that their participation was purely voluntary and assured of the confidentiality of all information. Different measures have been taken to assure the confidentiality of study subject's response. Names or any identification have not been used.

4.12. Dissemination of the result

The final results of this study will be disseminated to the AAU School of Public Health, Addis Ababa City Administration Health Bureau, Gandhi hospital and for those public and NGO health institutions where data collection for this study has been made.

5. RESULT

5.1. Socio - Demographic Characteristics

The socio-demographic information's concerning on women came to abortion service profile is useful in identifying, designing and implementing effective and efficient health services to enhance utilizations of post abortion family planning. This information's of respondents were collected through survey and summarized in Table 4.

The table shows, 80 (17.4%) of the respondents were in 15-19 age group; about 151 (32.9%) of them were in the age group of 20 -24, while 114 (24.8%) belong to 25 - 29 age group. Those who were between the age of 30 and 34 accounts for 95 (20.7%) and only 19 (4.1%) were above age of 35.

The clients were fall under three religious categories i.e. majority of respondents 350 (76.3%) were Orthodox followers, 58 (12.6%) and 51 (11.1%) of them were Protestants and Muslims respectively. From the result of the survey, distribution of marital status of the respondents showed that, majorities, 270 (58.8%) were single, while about 145 (31.6%) were married and the remaining 44 (9.6%) were divorced and/or widowed.

Educational background of the clients ranges from illiterate to tertiary levels. A total of 143 (31.2%) had tertiary education, while 143 (31.2%) and 132 (28.8%) of the respondents attend secondary and primary education respectively. Only 38 (8.3%) and 3 (0.7%) were categorized as illiterate and informal education respectively. Occupational status of the respondents shows that, 99 (21.6%) were student, 78 (17%) self-employed and 59 (12.9%) were government employees. A total of 113 (24.6%) were private employees, whereas, 52 (11.3%) were unemployed individuals. House wives and house maids were 18 (3.9%) and 40 (8.7%) respectively.

Monthly income of the respondents was collected and categorized in to five categories. Majority of the respondents 160 (34.9%) were dependents, whereas 79 (17.2%) and 111 (24.2%) fall under the income distribution of < 1000 birr and 1000 to 2000 birr respectively. Similarly 50 (10.9%) and 59 (12.9%) respondents` monthly income fall in the category of 2001 to 3000 birr, and >3000 birr respectively. The educational status of

client's partner was also assessed in the survey. Hence, 59 (40.7%) had tertiary education, 54 (37.2%) secondary education, 20 (13.8%) primary education and only 4 (2.8%) were illiterates. About total of 8 (5.5%) clients did not have clear information regarding their partner educational background. In summary, majority of women clients who came to health institution for abortion services fall in the age group of 20-24 years, had orthodox religion, single, had secondary and tertiary education, private company employees, dependent on their partner for income and their partner had tertiary education status.

Table 4: Socio-demographic characteristic of women who came to abortion care service in Addis Ababa abortion, 2017 (n = 459)

Variables	Categories	Frequency	Percent
Age	15-19	80	17.4
	20-24	151	32.9
	25-29	114	24.8
	30-34	95	20.7
	Above 35	19	4.1
Religion	Orthodox	350	76.3
	Muslim	51	11.1
	Protestant	58	12.6
Marital status	Single	270	58.8
	Married	145	31.6
	Divorce/ Widowed	44	9.6
Educational status	Illiterate	38	8.3
	Informal education	3	0.7
	Primary education	132	28.8
	Secondary education	143	31.2
	Tertiary education	143	31.2
Occupation	Student	99	21.6
	Self employed	78	17
	Government employed	59	12.9
	Private company employed	113	24.6
	Non-employed	52	11.3
	House wife	18	3.9
	House maid	40	8.7
Income	Dependent	160	34.9
	Below 1000 birr	79	17.2
	1000 - 2000 birr	111	24.2
	2001-3000 birr	50	10.9
	Above 3000 birr	59	12.9
Educational status of husbands of respondents	Illiterate	4	2.8
	Primary education	20	13.8
	Secondary education	54	37.2

Tertiary education	59	40.7
Not known	8	5.5

5.2. Health Service Related Factors

Table 5: presents that, only 35 (7.6%) of clients came to health institutions for abortion services had PAFP counseling history before current abortion, while majority 424 (92.4%) of them did not have such history. 35 (51.5%) of clients who had history of abortion before current abortion had counseling history. Currently 415 (90.4%) of respondents had got PAFP counseling and the remaining 44 (9.6%) were not counseled.

The majority 393 (85.2%) choose to use modern contraceptive method as opposed to only3 (0.7%) of respondents choosing to use traditional methods. Few of them, 60 (13.2%), did not decide on their choice or do not even know which one to choose. Respondents were assessed on their choice of clinic and the result indicates that, 114 (24.8%) choose public health institutions, while majority, 345 (75.2%) choose NGO owned clinics. Although the reason for their choices was not included in the study tool, it may be due to the privacy safety and security related reasons of the patients.

Table 5: Health service related factors of PAFP utilization among women came to abortion service in Addis Ababa, 2017.

Variables	Categories	Frequency	Percent
PAFP counseling history before current abortion	Yes	35	7.6
	No	424	92.4
PAFP current counseling	Yes	415	90.4
	No	44	9.6
PAFP choice	Modern	393	86.2
	Traditional	3	0.7
	I don't know	60	13.2
Clinic choice	Public	114	24.8
	NGO	345	75.2

5.3. Personal Related Factors

Clients responded differently to reasons for abortion (Table 6). A total of 79 (17.2%) respondents came for abortion service due to fetal problems, while the majority, 295 (64.3%) were due to maternal health problems. The remaining 15 (3.3%) and 70 (15.2%) of clients came to abortion services due to rape and other personal reasons (which include pregnancy from parents, financial problem).

The result also found that; respondents had numerous reasons for PAFP use. Thus, majority 172 (52.1%) of them used to avoid unintended pregnancy and 117 (35.5%) used due to being counseled. About 25 (7.6%), 3 (0.9%), 11 (3.3%) and 2 (0.6%) have used PAFP due to reasons such as, 'it is good to their health', 'recommended by health professionals', 'presence of enough children' and others (husband influence) respectively.

Reasons of unwillingness to use PAFP recently among respondents were also documented. As it is evidenced from the table respondents who did not use PAFP had different personal reasons. About 79 (56%) believed that they did not face the problem again, while 18 (12.8%), 2 (1.4%) and 4 (2.8%) of the them were not interested to use due to feeling less comfortable, scared of being counseled and due to their negative perception that it is not important respectively. Beings scared of their choice of FP type, absence of interest from their partner, and other reasons accounted for 14 (9.9%), 3 (2.1%) and 21 (14.9%) respectively.

Table 6: Personal related factors of PAFP utilization among women who came to abortion service in Addis Ababa, 2017

Variables	Categories	Frequency	Percent
Reason for current abortion	Fetal condition	79	17.2
	Maternal condition	295	64.3
	Rape	15	3.3
	Others(financial problem, got pregnant from relative)	70	15.2
Reasons for PAFP use	It is good to my health	25	7.6
	To avoid unintended pregnancy	172	52.1
	Recommended by health professionals	3	0.9
	I have enough children	11	3.3
	Being counseled	117	35.5

Reasons of unwilling to use PAFP recently	Others	2	0.6
	I didn't face the problem again	79	56.0
	I don't feel comfortable to use	18	12.8
	I am scared of being counseled	2	1.4
	I don't believe that it is important	4	2.8
	Scared with choice of family planning types	14	9.9
	No interest from my partner	3	2.1
	Others (I want time for decision)	21	14.9

The result in figure 3: show that, 316 (68.8%) of women who came to abortion used PAFP currently, while the remaining 143 (31.2%) responded as no current use of family planning methods after they went through abortion.

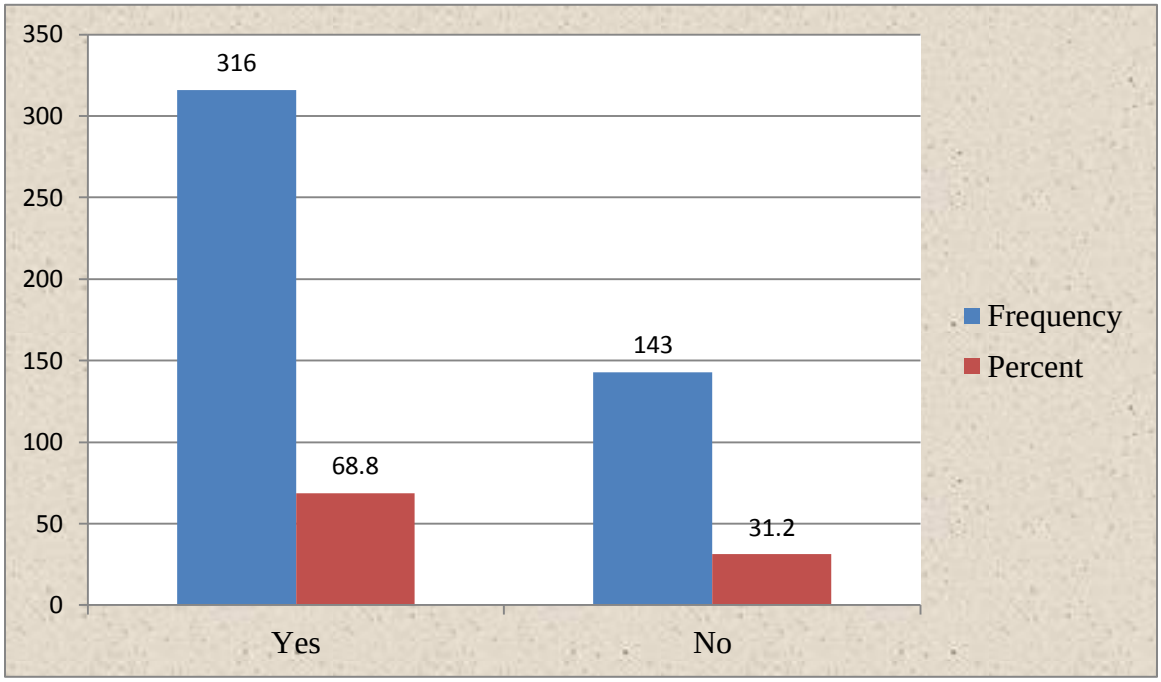

Figure3: Post abortion family planning current utilization of the respondents among women came to abortion service in Addis Ababa, 2017

5.4. Reproductive, Contraceptive and Abortion History

The collected information were mainly focused on reproductive, contraceptive and abortion history of women clients who came to selected health institutions for abortion service. About 346 (75.4%) of respondents had reported, starts menses when they were at age category of 10 to 15. Those had reported who started between age category of 16 to 18 were 80 (17.4%) and the rest 33 (7.2%) were did not remember the exact time. Only 68 (14.8%) had previous abortion history, while the majority 391 (85.2%) did not have such history. 135 (29.4%) of clients had previous delivery status, whereas 324 (70.6%) did not give birth before.

Previous and FP planning history before the latest index pregnancy within one year information were assessed, majorities 256 (55.8%) used FP previously and 203 (44.2%) were not. The FP history before pregnancy within one year also show that, 208 (45.7%) of clients were used and 247 (54.3) of them were not have such history.

As the result of survey indicates respondents were used different contraceptive types. Among these 102 (22.2%) were used pills followed by 56 (12.2%) of Depo (injection) users. Besides to these 30 (6.5%) and 8 (1.7%) of clients who used implant and IUCD respectively. The rest 8 (1.7%) and 7 (1.5%) were condom and natural method users. Only 58 (12.6%) of respondent women had abortion history in health institutions while the 401 (87.4%) did not have such history. From the total respondents of the study, 298 (64.9%) were pregnant for the first time and others 161 (35.1%) had more than one time pregnancy history.

Alcohol and cigarette history of each respondents were examined. As it is shown from the result, only 38 (8.3%) have drunk alcohol, while the vast majority 421 (91.7%) were free from alcohol. The same result was found for cigarette history, since only 4 (0.9%) of the client were addicted in smoking cigarette, whereas about 455 (99.1%) were free from smoking.

Information concerning on number of children, willingness to have child and willingness time were considered under data collection procedure. Number of respondent's children, were ranges from null to above three. Majority of the respondents 338 (73.6 %) did not

have child. Respondents had one child, two and more than three children accounts 86 (18.7%), 25 (5.4%) and 10 (2.2 %) respectively. About 396 (86.3%) of them were willing to deliver child and the remaining 63 (13.7%) have no interest to give birth ever. 234 (57.8%) did not planned the approximate time when they want to deliver. 171 (42.2%) were the cumulative percentage of those who planned the approximate time to give birth which ranges from within one year to above two years.

According to the survey result, about 405 (89%) did not have PAFP history at health institutions, while only 50 (11%) were those who had previous history. About 33 (66%) were satisfied with PAFP, whereas 17 (34%) were dissatisfied. The abortion frequency ranges from once up to three times. Majority 401 (87.4%) were faced abortion for one time, 53 (11.5%) and 5 (1.1%) have faced for two and three times.

PAFP using time after recent abortions were collected under five categories. Based on these information, 316 (72.3%) used immediately after abortion. Only 10 (2.3%) were used when it comes to their mind and 109 (24.9%) did not know the time, while 2 (0.5%) were under others category. The result concerning on pregnancy conditions indicates, 78 (17%) was wanted, while that of majorities 380 (83%) was unwanted. From total women came to abortion service, 459 (100%) were induced abortion.

Table 7: Reproductive, contraceptive and abortion history of women came to abortion service in Addis Ababa, 2017

Variables	Categories	Frequency	Percent
First menses time	10-15 age	346	75.4
	16-18 age	80	17.4
	I don't know	33	7.2
Abortion history	Yes	68	14.8
	No	391	85.2
Previous delivery status	Yes	135	29.4
	No	324	70.6
Previous family planning history	Yes	256	55.8
	No	203	44.2
family planning history before pregnancy within one year	Yes	208	45.7
	No	247	54.3
used family planning type before pregnancy within one year	Natural	7	3.3
	Condom	8	3.8
	Pills	102	48.3
	Depo (injection)	56	26.5

	Implant	30	14.2
	IUCD	8	3.8
Alcohol history	Yes	38	8.3
	No	421	91.7
Cigarette history	Yes	4	0.9
	No	455	99.1
Abortion history in health institutions	Yes	58	12.6
	No	401	87.4
First time pregnancy	Yes	298	64.9
	No	161	35.1
Number of children	Null	338	73.6
	One	86	18.7
	Two	25	5.4
	Three and above	10	2.2
Willingness to have child	Yes	396	86.3
	No	63	13.7
Willing time to have child	Within one year	58	14.3
	After one - two years	42	10.4
	Above two years	71	17.5
	I don't know	234	57.8
PAFP history in health institutions	Yes	50	11
	No	405	89
PAFP satisfaction history before current abortion	Yes	33	76.7
	No	17	23.3
Abortion frequency	Once	401	87.4
	Two times	53	11.5
	Three times	5	1.1
PAFP using time after recent abortion	Immediately after abortion	316	72.3
	When it comes to my mind	10	2.3
	I don't know	109	24.9
	Others (after one child)	2	0.5
Pregnancy condition	Wanted	78	17.0
	Unwanted	380	83.0
Type of abortion	Induced	459	100
	Spontaneous	0	0

As shown from Fig 4: Pills, depo (injection), implant, IUCD and condom were among FP types in which the respondents used after abortion. About 226 (71.1%) were used implant, 35 (11%), 31 (9.7%), 25 (7.9%) and 1 (0.3%) were used IUCD, injection, pills and condom respectively. The utilization percentage indicates that implant is mostly used type, while condom users are the least in percentage.

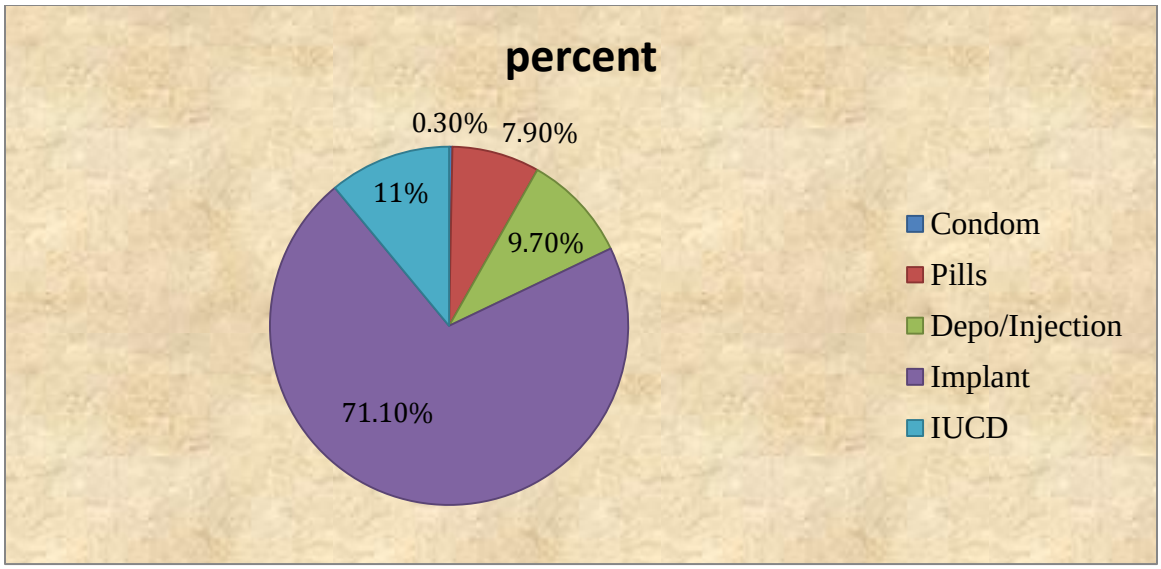

Figure 4: Utilization of family planning types among women who came to abortion service in Addis Ababa, 2017

From Figure 5: current PAFP satisfaction indicates about 301 (94.1%) clients responded that they used PAFP currently and got satisfaction and the remaining 19 (5.9%) responded as have no satisfaction.

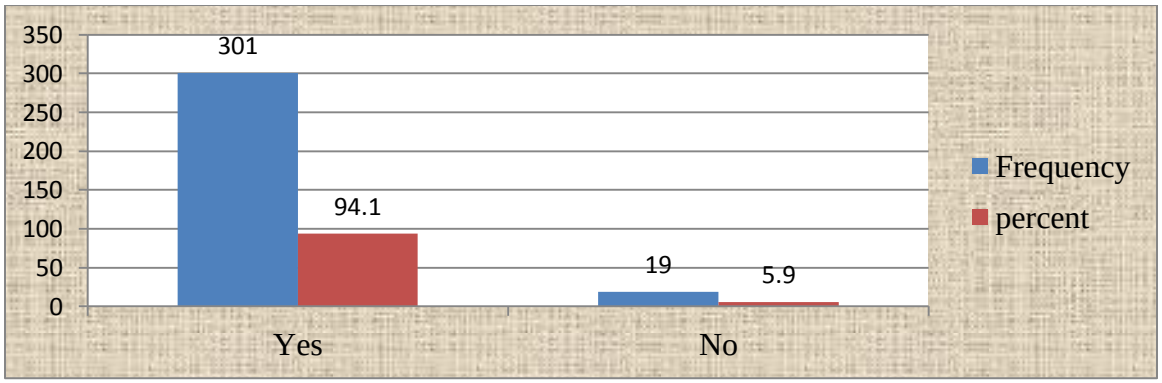

Figure 5: Current PAFP satisfaction of women who came to abortion service in Addis Ababa, 2017

5.5. Knowledge and Attitude Related Factors

Data regarding to knowledge and attitude related factors were collected in order to examine PAFP utilization. About 438 (95.4%) of respondents had information accesses and the rest 21(4.6%) were not rich in such information. Informed respondents were used different information sources. 183 (42.4%) were got related information from more than one sources. About 138 (31.9%) have got information from health professionals followed by 62 (14.4%) who got from television. In addition, 29 (6.7%), 18 (4.2%) and only 2 (0.5%) of respondents were got PAFP information from their friends, other clients and schools respectively.

According to table 6,413 (90%) had knowledge concerning on PAFP type, only 46 (10%) were not familiar. Pills, Depo, implant, IUCD and condom were types has been known by 274 (66.5%) respondents simultaneously. 51 (12.4%), 39 (9.5%) and 36 (8.7%) were knows pills, implant and injection respectively. Condom and IUCD were known only by 6 (1.5%) and 3 (0.7%) respondents respectively.

Finally, attitude of respondents on PAFP were assessed and shows, 396 (86.3%) had good perception followed by 47 (10.2%) those who did not measure their feelings. The remaining 12 (2.6%) and 4 (0.9%) of respondents were those who feel bad and under other perception category respectively.

Table 8: Knowledge and attitude related factors of study population of Addis Ababa, Ethiopia, 2017

Variables	Categories	Frequency	Percent
PAFP information access	Yes	438	95.4
	No	21	4.6
PAFP information source	Television	62	14.4
	Health professionals	138	31.9
	Clients	18	4.2
	Friends	29	6.7
	School	2	0.5
	More than one source	183	42.4
Knowledge about PAFP type	Yes	413	90.0
	No	46	10.0
Known PAFP types	Natural	3	0.7
	Condom	6	1.5
	Pills	51	12.4
	Depo (injection)	36	8.7

	Implant	39	9.5
	IUCD	3	0.7
	More than one (Pills, depo, implant, IUCD, condom)	274	66.5
Attitude about PAFP	Good	396	86.3
	Bad	12	2.6
	I don't know	47	10.2
	Others(both good and bad)	4	0.9

Chi square test (x^2) was carried out in order to establish the relationship between explanatory variables age, education level, knowledge about PAFP, FP history, reason for current abortion, and willing to deliver with the response variable utilization of PAFP. As it is shown in table 9, the sig (P-value) of age, educational level, knowledge about PAFP of clients is 0.447, 0.117, 0.117 and 0.052 respectively. Since the p-value is greater than 0.05, it indicates that there is no significant association between PAFP utilization and age, educational level, knowledge about PAFP and willing to deliver, whereas the p-value of FP history and reason for current abortion is 0.030 and 0.010. The P-value is less than 0.05 and it shows the presence of significant association between these explanatory variables and PAFP utilization.

Table 9: Cross tabulation of post abortion contraceptive acceptance with socio-demographic factors, knowledge, reproductive and FP history of study population of Addis Ababa, Ethiopia, 2017

Variables	Categories	PAFP accepters(#) %	PAFPN on-accepters(#)%	X^2,p value
Age	15-19	56(70%)	24(30%)	X^2 =24.255
	20-24	97(64.2)	54(35.8%)	P=0.447
	25-29	81(71.1%)	33(28.9%)	
	30-34	68(71.6%)	27(28.4%)	
	Above 35	14(73.7%)	5(26.3%)	
Women education level	Illiterate	24(63.2%)	14(36.8%)	X^2=2.455
	Informal education	2(66.7%)	1(33.3%)	P=0.117
	Primary education	87(65.9%)	45(34.1%)	
	Secondary education	102(71.3%)	41(28.7%)	
	Tertiary education	101(70.6%)	42(29.4%)	
Knowledge about PAFP	No	27(58.7%)	19(41.3%)	X^2=2.455
	Yes	289(70%)	124(30%)	P=0.117

FP history	No	132(65%)	71(35%)	X^2=4.700
	Yes	184(71.9%)	72(28.1%)	P=0.030
	Fetal condition	47(59.5%)	32(45.5%)	X^2=11.343
	Maternal condition	218(73.9%)	17(26.1%)	P=0.010
Reason for current abortion	Rape	7(46.7%)	8(53.3%)	
	Others	44(62.9%)	26(37.1%)	
Willing to deliver	No	50(79.4%)	13(20.6%)	X^2 = 3.768
	Yes	266(67.2%)	130(32.8%)	P = 0.052

5.6. Factors Associated with PAFP Accepters

Binary logistic regression was done to identify factors significantly associated with post abortion family planning then the significantly contributing variables (p-value < 0.2) were taken to multiple logistic regression. Binary logistic regression analysis showed that marital status, income, abortion history, FP history, delivering time, PAFP counseling, reason for abortion and information access were significantly associated with post abortion family planning.

Table 10: Binary logistic regression analysis of determinants of post abortion family planning among women who came to abortion service Addis Ababa (2017)

	post abortion family planning current history		**COR(95%CI)**	**P-Value**
Marital status	Yes	No		
Single	202(74.8%)	68(25.2%)	4.291(2.216-8.309)	< **0.001**
Married	96(66.2%)	49(33.8%)	2.830(1.416-5.656)	**0.003**
Divorce/widowed	18(40.9%)	26(59.1%)	1	
Income				
Dependent	129(80.6%)	31(19.4%)	1	
<1000 birr	50(63.3%)	29(36.7%)	0.414(0.227-0.757)	**0.04**
1000-2000	71(64.0%)	40(36.0%)	0.427(0.246-0.740)	**0.002**
2001-3000	28(56.0%)	22(44.0%)	0.306(0.155-0.605)	**0.001**
>3000	38(64.4%)	21(35.6%)	0.435(0.224-0.843)	**0.14**
Abortion history				
Yes	262(67.0%)	129(33.0%)	1.899(1.017-3.546)	**0.044**
No	54(79.4%)	14(20.6%)	1	
FP history				
Yes	132(65.0%)	71(35.0%)	1.375(0.924-2.044)	**0.116**
No	184(71.9%)	72(28.1%)	1	

Willing to Deliver				
Yes	50(79.4%)	13(20.6%)	1	
No	266(67.2%)	130(32.8%)	1.880(0.986-3.583)	**0.005**
PAFP counseling				
Yes	1(2.3%)	43(97.7%)	1	
No	315(75.9%)	100(24.1%)	0.007(0.001-0.057)	<**0.001**
PAFP information				
Yes	4(19.0%)	17(81.0%)	10.524(3.473-31.890)	< **0.001**
No	312(71.2%)	126(28.8%)	1	
Reason for current abortion				
Fetal condition	47(59.5%)	32(40.5%)	0.868(0.448-1.682)	0.674
Maternal condition	218(73.9%)	77(26.1%)	1.673(0.965-2.900)	**0.067**
Rape	7(46.7%)	8(53.3%)	0.517(0.168-1.591)	0.250
Others	44(62.9%)	26(37.1%)	1	

5.7. Multivariate Analysis of Post Abortion Family Planning

Using variables which were significant in the binary logistic regression, multiple logistic regressions were done, by including all variables in the model. The multiple logistic regression analysis showed that there was statistically significant association between post abortion family planning use and marital status, income, PAFP information, abortion history and counseling (Table:11).

Single women were five times (AOR=5.389, CI (2.413-12.034) more likely to utilize PAFP than the divorce/widowed women and also married women were found three times (AOR= 3.329, CI (1.462-7.583)) more likely to accept PAFP than divorced/widowed, women those who earned < 1000 birr/month were 61.6% (AOR=0.384, 95%CI (0.174-0.844)) less likely to accept PAFP compared with women who were dependent, those women who had 1000-2000 birr/month were 73.8% (AOR=0.262,95%CI (0.125-0.549) less likely to accept PAFP compared with women who were dependent, women who had 2001-3000 birr/month were 82% (AOR=0.180,95%CI (0.071-0.455) less likely to accept PAFP compared with women who were dependent and women who got > 3000 birr/month were 67.8% (AOR=0.322,95%CI (0.132-0.788) less likely to accept PAFP compared with women who were dependent, those respondents who didn't get information about PAFP were 94.7% (AOR 0.053, 95%CI (0.015-0.182)) less likely to

accept PAFP compared with those had information before, women who had no history of abortion were 70.2% (AOR=0.298, 95%CI (0.123-0.72)) less likely to use PAFP compared with women who had history of abortion and women did not get counseling were 99.5% (AOR=0.005, 95%CI (0.001-0.036)) less to accept PAFP compared with women had counseled.

Table11: Multivariate logistic regression analysis of determinants of post abortion family planning among women who came to abortion service in Addis Ababa, 2017.

	post abortion family planning current history		AOR (95%CI)	**P- Value**
Marital status	Yes	No		
Single	202(74.8%)	68(25.2%)	**5.389(2.413-12.034)**	**<0.001**
Married	96(66.2%)	49(33.8%)	**3.329(1.462-7.583)**	**0.004**
Divorce/ widowed	18(40.9%)	26(59.1%)	1	
Income				
Dependent	129(80.6%)	31(19.4%)	1	
<1000 birr	50(63.3%)	29(36.7%)	**0.384(0.174-0.844)**	**0.017**
1000-2000	71(64.0%)	40(36.0%)	**0.262(0.125-0.549)**	**<0.001**
2001-3000	28(56.0%)	22(44.0%)	**0.180(0.071-0.455)**	**<0.001**
>3000	38(64.4%)	21(35.6%)	**0.322(0.132-0.788)**	**0.013**
Abortion History				
Yes	262(67.0%)	129(33.0%)	**3.352(1.387-8.101)**	**0.007**
No	54(79.4%)	14(20.6%)	1	
PAFP Information				
Yes	4(19.0%)	17(81.0%)	**18.837(5.487-64.665)**	**< 0.001**
No	312(71.2%)	126(28.8%)	1	
PAFP counseling				
Yes	1(2.3%)	43(97.7%)	1	
No	315(75.9%)	100(24.1%)	**0.005(0.001-0.036)**	**< 0.001**

6. DISCUSSION

In this study four hundred fifty nine subjects have participated. Among them, post abortion contraceptive utilization was 68.8% which is lower than the study done based on facility in Brazil (97.4%), Nepal (83%) and Tanzania (89%). The disparity may be in Brazil (27%) respondents had history of previous abortion as compared to this study (14.8%). However, in Nepal eighty percent respondents have good knowledge and previous practice of family planning. The Tanzania study design was cohort and it is different from the current study. The other possible reasons might be insufficient counseling, cultural difference, desire to have more children, lack of availability of all contraceptive methods all the time, judgmental approach of health care provider, miss conceptions rumors on family planning methods [3,36,37]. However, the study done in Kenya (31%) is lower than this study finding. The probable reason for this could be the study includes only the private clinics but this study included public and NGO clinics [38]. Similarly post abortion contraceptive utilization was low in Tigray (31%), this could be due to lack of awareness on contraceptive methods and poor set up of service delivery system (family planning service was not integrated with abortion care services in the Tigray [39]. In addition the study is higher than the study done in Debre Markos (59.2%) and Dessie (47.5%) but lower than the study in Addis Ababa (86%), Gambela (72.9%) and other developing countries. But the study done in Addis Ababa majority of the respondents was from NGO clinics. Based on different literatures NGO clinics have higher retention of post abortion contraceptive than government or private clinics. Even though the percentage of women who use PAFP is greater than the women who didn't use, these we cannot say it is satisfactory because most of the women who came to get abortion care service had unintended/unplanned pregnancy, they all need to use family planning to avoid similar incidents [20,18,22,40,41].

Compared to some of the studies done in Ethiopia, this study also shows that 345 (75.2%) of women who came for abortion service were below the age of thirty and about 314 (68.4%) were not currently married, similarly the study done in SNNPR showed that most women 60% were young, only 40% of women who sought abortion care during this

period were older than 24 [21]. Unmarried young women have great probability of having unintended pregnancy which will end up with abortion.

In this study similar to as the study done in Gambela and Debre Markos marital status of client is significantly associated with PAFP utilization, single women were five times (AOR=5.389, CI (2.413-12.034) more likely to utilize PAFP than the divorce/widowed women and also married women were found three times (AOR= 3.329, CI (1.462-7.583) more likely to accept PAFP than divorced/widowed. The possible reason could be that married women involve their partner and there may have plan for delivering time. Unmarried could possibly have strong desire to use family planning due to fear of cultural out cast and social discrimination [22, 20]. The reason could be that divorce/widowed do not use family planning as most of them have casual sex. Previous study also had similar conclusion on marital status [42].

This study indicates women those who earned < 1000 birr/month were 61.6% (AOR=0.384, 95%CI (0.174-0.844)) less likely to accept PAFP compared with women who were dependent, those women who had 1000-2000 birr/month were 73.8% (AOR=0.262,95%CI (0.125-0.549) less likely to accept PAFP compared with women who were dependent, women who had 2001-3000 birr/month were 82% (AOR=0.180,95%CI (0.071-0.455) less likely to accept PAFP compared with women who were dependent and women who got > 3000 birr/month were 67.8% (AOR=0.322,95%CI (0.132-0.788) less likely to accept PAFP compared with women who were dependent. This indicates women who were dependent and women who had less income were unable to cope the situation and want to use family planning in contrast those in contrary a study done in Pakistan 2012; showed that family monthly income was also found increasingly associated (AOR from 1.25-1.61) with uptake of post abortion family planning. These could be those with better income may have better information and attitude towards PAFP [17].

The study result showed that women who had history of abortion were three times (AOR=3.352, (95%CI (1.387-8.101)) more likely to use PAFP compared with women who had not history of abortion. Similarly the study done in Addis Ababa showed 1.46

times higher odds of adopting family planning compared with women those had not history of abortion. History of previous abortion was about 14.8% of the respondents which is less than to the study done in Addis Ababa and Dessie which is 30%, 26.5% respectively. Women who had history of previous abortion and unintended pregnancy should have used any modern family planning methods which can protect against similar incidents [18, 40].

Those respondents who had get information about PAFP before coming to the abortion service were 19 times (AOR= 18.837, 95%CI (5.487-64.665)) more likely to accept PAFP compared with those who hadn't get information before. The study done in Kenya showed that information systems are one of elements of successful post abortion family planning programs [35]. Family planning information and counseling delivered after an abortion needs to include all of the attributes of good family planning services [1]

In this study women who did not get counseling were 99.5% (AOR=0.005, 95%CI (0.001-0.036)) less to accept PAFP compared with women had counseled. This result is In line with the study in Gambela, Debre Markos and Kenya, those counseled were 3.3, 4.2 and 5 times higher odd utilizing respectively [20, 41]. And also another study done in Ethiopia in 2008 depict that about 53.4% of women got counseled, 44.7% accept contraceptives [43]. This result will tell us that counseling had significant effect on PAFP use.

About 274 (66.5%) women include in the study knew more than one family planning methods and around256 (55.8%) have ever used at least one modern contraceptive method. In this study the status of contraceptive previous knowledge showed 413 (90%) but when it is compared to the nationwide hospital based survey done in 2007 in Ethiopia, previous contraceptive knowledge of post abortion is 87% [44].

The most frequent reasons mentioned by the participants of the study for unwillingness of PAFP were infrequent sex; temporary partner; apart or field work; fear of side effect; want to get pregnant and partner opposition. Similarly a study done in Debra Marko's respondents reasons for not using family planning method before or after abortion were divorce (4.6%), live separately with their husband or partner (13.8%), prefer natural

family planning method (9.7%), religion opposition (8.9%), wish to give birth soon 24 (5.8%) and 31 (7.5%) due to rape/no sex (no) [20].

7. STRENGTH AND LIMITATION

7.1. Strengths

- Using trained nurses as data collector helped to keep the confidentiality and privacy of the respondents so that they can give the required information comfortably.
- The study includes selected NGOs and government facilities that deliver abortion service, the high sample size and to minimize recall bias the interview was held immediately after they leave the abortion room.

7.2. Limitations

- The study has used purposive sampling method to select the clinics for which the sampled clinics may not be representative of the target population.
- The response does not identify whether the method they reported adopting was chosen or simply prescribed. Thus method adoption could be a factor of method availability and provider bias, not simply women's preferences and
- The women were not followed prospectively once they received the contraceptive method after post abortion treatment so as to determine the level of method continuation. No information was gathered if the women used the contraception from any other provider within 30 days of post-abortion treatment.
- Social desirability bias.
- Like any other cross-sectional study, could not explain cause and effect relationship.
- Qualitative design was not used to substantiate the quantitative findings.

8. CONCLUSION

More women who came for abortion care service accepted post abortion family planning which accounts 68.8%. The major reason for not using family planning after abortion were no or infrequent sex, and fear of side effects. All of respondents came to safe abortion care, from these 380 (83%) was unintended pregnancy and around 14.8% of respondent had previous history of abortion.

Most of the women were very young, students, private employed, dependent and those whose monthly income is < 1000 birr. Most of women got counseling services more likely accept PAFP than those did not get counseling. Marital status, income, abortion history, PAFP information and counseling were found to be determinant factors.

9. RECOMMENDATION

- The Addis Ababa Health Office should emphasis on post abortion family planning education and counseling since post abortion is one entry point or opportunity to get contraception and the accurate and appropriate information about contraceptive methods in order to reduce risk or repeat unwanted pregnancy.
- Health facilities should promote modern contraception methods specifically focused on long term contraceptive like implant, IUCD, that which can protect against repeated pregnancy and abortion.
- Service providers should provide brief information about fertility return following abortion and detail PAFP counseling for post abortion women by giving adequate time.
- Service providers have to get training on comprehensive post abortion care and on integration of family planning services.
- As most of the clients are young providing focused RH, youth and friendly service and family planning awareness creation activities in schools by integration of efforts among teachers, parents and MOH (RHB) and other stake holders will enable them of prevent un wanted pregnancy and abortion.

- The Health Bureau should give due attention in availing, scaling up and sustaining wider range of post abortion family planning commodities in the post abortion unit.

10. SUGGESTION FOR FUTURE RESEARCHES

- The study has not considered all the prospective associated factors as an explanatory variables such as, availability and access of clinics, quality of cares. Hence, the study has forwarded these indicators for future potential studies.
- Due to financial and time constraints, this study has selected only public and NGO clinics through using purposive sampling method. However, selection of clinics by using random sampling techniques has left for future studies to make the clinics representative of the population.

Reference

1. World Health Organization (WHO). Post-abortion family planning: a practical guide for program managers. Geneva: WHO; 1997.
2. Rahman A, Katzive L, Henshaw SK (1998) A global review of laws on induced abortion, 1985-1997. Int Fam Plann Persp 24: 56-64.
3. Aemro M, Mesele M, Birhanu Z, Atenafu A (2013) Dietary Diversity and Meal Frequency Practices among Infant and Young Children Aged 6-23 Months in Ethiopia: A Secondary Analysis of Ethiopian Demographic and Health Survey 2011.J Nutr Metab 2013: 782931.
4. Khanal V, Joshi C, Neupane D, Karkee R (2011) Practices and perceptions on contraception acceptance among clients availing safe abortion services in Nepal. Kathmandu Univ Med J (KUMJ) 9: 179-184.
5. Singh S, Fetters T, Gebreselassie H, Abdella A, Gebrehiwot Y, Kumbi S, et al. The estimated incidence of induced abortion in Ethiopia, 2008.Int Perspect Sex Reprod Health. 2010; 36(1):16–25.
6. Sundaram A, Vlassoff M, Bankole A. Benefits of meeting the contraceptive needs of Ethiopian women. In Brief No. 1. New York: Guttmacher Institute; 2010.
7. Central Statistical Agency [Ethiopia]; ICF International. Ethiopia demographic and health survey 2011. Calverton (MD): ICF International; 2012.
8. Thorp JM, Hartmann KE, Shadigan E. Long term physical and psychological health consequences of induced abortion: a review of the evidence. Linacre Q 2005; 72:44-69.
9. Lule E, Singh S and Chowdhury SA, Fertility Regulation Behavior and Their Costs: Contraception and Unintended Pregnancies in Africa and Eastern Europe and Central Asia, Washington, DC: World Bank, 2007.
10. UNFPA, Focus on 5. Women's health and the MDGs <https://www.unfpa.org/webdav/site/global/shared/images/publications/2009/focs_on_5.pdf>, accessed Mar. 16, 2010

11. By Carolyn Curtis, Douglas Huber and Tamarah Moss-Knight Post abortion Family Planning: Addressing the Cycle Of Repeat Unintended Pregnancy and Abortion March 2010
12. McDougall J, Fetters T, Clark KA, Rathavy T. Determinants of contraceptive acceptance among Cambodian abortion patients. Stud Fam Plann. 2009; 40(2):123–132. Cross Ref Medline Google Scholar
13. Medina R, Vernon R, Mendoza I, Aguilar C. Expansion of postpartum/post abortion contraception in Honduras. New York: Population Council; 2001. Available from: http://pdf.usaid.gov/pdf_docs/Pnacm374.pdf Google Scholar
14. United States Agency for International Development (USAID). What works: a policy and program guide to the evidence on post abortion care. Washington (DC):USAID;2007.Availablefrom:http://www.postabortioncare.org/sites/pac/files/Compendium.pdf
15. Otsea K, Benson J, Alemayehu T, Pearson E, Healy J. Testing the Safe Abortion Care model in Ethiopia to monitor service availability, use, and quality. Int J Gynecol Obstet. 2011; 115(3): 316–321. Cross Ref Medline Google Scholar
16. Solo J, Billings DL, Aloo-Obunga C, Ominde A, Makumi M. Creating linkages between incomplete abortion treatment and family planning services in Kenya. Stud FamPlann. 1999; 30(1):17–27. Cross Ref Medline Google Scholar
17. Azmat S, Hameed W, Ishaque M, Mustafa G, Ahmed A (2012) Post-abortion care family planning use in Pakistan. Pak J Public Health 2:4-9.
18. Prata N, Bell S, Holston M, Gerdts C, Melkamu Y Factors Associated with Choice of Post-Abortion Contraception in Addis Ababa, Ethiopia Afr J Reprod Health 2011; 15[3]:51-57
19. Mohammed F., Musa A., and Amano A. 3Prevalence and determinants of unintended pregnancy among pregnant woman attending ANC at Gelemso General Hospital, Oromiya Region, East Ethiopia: Mohammed et al. BMC Women's Health (2016) 16:56 DOI 10.1186/s12905-016-0335-1
20. Kokeb L, Admassu E, Kassa H, Seyoum T (2015) Utilization of Post Abortion Contraceptive and Associated Factors among Women who Came for Abortion

Service in Debra Marko's: a Hospital Based Cross Sectional Study. J Fam Med Dis Prev 1:022

21. M. Samuela, T. Fettersb, D. Destaa Strengthening Post abortion Family Planning Services in Ethiopia: Expanding Contraceptive Choice and Improving Access to Long-Acting Reversible Contraception 2014.
22. .Abamecha A. Shiferaw A, Kassaye A. (2015) Assessment of Post Abortion Contraceptive Intention and Associated Factors among Abortion Clients In Gambella Health Facilities, Gambella Town, South West Ethiopia Central Statistics Agency 2008report Volume 3 issue 8 2016 page no. 2061-2070 e-ISSN: 2348-991X p-ISSN: 2454-9576 Available Online At: http://valleyinternational.net/index.php/our-jou/ijmsci
23. Erko EK, Abera M. and Admassu B Safe Abortion Care, Utilization of Post Abortion Contraception and associated Factors, Jimma Ethiopia, Jimma University College of Public Health and Medical Sciences, Jimma, Ethiopia Rec date: June 30, 2016; Acc date: July 13, 2016; Pub date: July 28, 2016
24. WHO, UNICEF, UNFPA, WB Group and United Nations Population Division. Trends in maternal mortality: 1990 to 2015, Geneva: World Health Organization; 2015.
25. Ceylan A, Ertem M, Saka G, Akdeniz N (2009) Post abortion family planning counseling as a tool to increase contraception use. BMC Public Health 9: 20.
26. Abdella A, Fetters T, Benson J, Pearson E, Gebrehiwot Y, et al. (2013) Meeting the need for safe abortion care in Ethiopia: results of a national assessment in 2008.Glob Public Health 8: 417-434.
27. Ashford L, Sedgh G, Singh S (2012) Making abortion services accessible in the wake of legal reforms. Issues Brief (Alan Guttmacher Inst): 1-4.
28. World Health Organization (WHO). Report of a WHO technical consultation on birth spacing. Geneva, Switzerland, 13–15 June 2005. Geneva: WHO; 2006.
29. World Health Organization. Complication of abortion: technical and managerial guidelines for prevention and treatment, 1995.

30. C. Shannon and B.Winikoff, "Unsafe abortion and strategies to reduce its impact on women's lives," chapter 9, pp. 149, 2010.
31. J. Bensona, K. Andersena, D. Brahmia, J. Healya, A. Marka, A. Ajodeb and R. Griffinca Ipas, Chapel Hill, NC, USA; bIpas (formerly), Nairobi, Kenya; cIpas (formerly), Minneapolis, MN, USA What contraception do women use after abortion? An analysis of 319,385 cases from eight countries GLOBAL PUBLIC HEALTH, 2016 http://dx.doi.org/10.1080/17441692.2016.1174280
32. Erko EK1, Abera and Admassu B Safe Abortion Care, Utilization of Post Abortion Contraception and associated Factors, Jimma Ethiopia Erko et al., J Women's Health Care 2016, 5:4
33. A. Gessessew Abortion and Unwanted Pregnancy in Adigrat Zonal Hospital, Tigray, North Ethiopia (Afr. J. Reprod. Health 2010; 14[3]: 183-188).
34. Benson J, Huapaya V. Sustainability of post abortion care in Peru. New York: Population Council; 2002 May. 45 p.
35. Post abortion Family Planning: Strengthening the family planning component of post abortion care. November 2012. https://www.fphighimpactpractices.org/sites/fphips/files/hip_pac_brief.pdf
36. Ferreira AL, Souza AI, Lima RA, Braga C (2010) Choices on contraceptive methods in post abortion family planning clinic in the northeast Brazil. Reprod Health 7: 5.
37. Rasch V, Yambesi F, Massawe S (2008) Medium and long-term adherence to post abortion contraception among women having experienced unsafe abortion in Dar es Salaam, Tanzania. BMC Pregnancy Childbirth 8: 32.
38. Onyango MA, Oguttu M, Barger M (2010) Predictive factors for uptake of Post-abortion care in western Kenya. African Journal of Midwifery and Women's Health 4:115-120.
39. Otsea K, Tesfaye S (2007) Monitoring safe abortion care service provision in mTigray, Ethiopia. Chapel Hill, NC: Ipas

40. SeidA., Gebremariam A., Abera M. Integration of Family Planning Services within Post Abortion Care at Health Facilities in Dessie – North East Ethiopia, Science, Technology and Arts Research Journal Jan-March 2012, 1(1): 38-46
41. Yilma M., Mulugeta B., Solomon T., Utilization of post-abortion care services in three regional states of Ethiopia Ethiop. J. Health Dev.2010; 24 Special Issue1:123-129
42. Post abortion family planning benefits clients and providers. Global health technology brief; 2005.
43. Kumbi S., Melkamu Y., Yeneneh H. quality of post abortion care in public health facilities in Ethiopia. Ethiop. J. health, dev.2008.
44. Fantahun M.,Worku S. unintended pregnancy and induced abortion in town with accessible family planning service. Ethiopia J. Health dev.2006; 20(2).

Annex 1: English version questionnaire

Participant Information Sheet and Informed Consent Form

Hello dear respondents, my name is_____, I am here to collect data for the research purpose which is conducted to complete a thesis for Master's Degree of Public Health.

The purpose of this study is to assess utilization of post abortion family planning and associated factors among women coming to abortion service at selected clinics.

You are selected to be one of the participants in the study. I would like to ask you to fill this questionnaire that takes your time. No harm is imposed to you except the time you commit for interview but some of the question may look too personal but it is helpful for the study. In addition, there is no payment for participation even though the result of the study may benefit as a citizen. The questionnaire Participation in this study is voluntary, you have the right to refuse or with draw from the study at any time for any reason without penalty. However, your honest answers to these questions are important since it provide relevant information to design interventions that aims to improve the use of post abortion family planning among women came for abortion service.

The information you provide is confidential and it will be used only for study purpose and it will not be disclosed to anyone. A code number will be used to identify the participant therefore, writing your name is not needed.

If you have something that is not clear about the study please contact the principal investigator, Mahlet Kassahun (Mobile 0913-74-90-83, email amahletkassahun@yahoo.com) at any time.

Are you willing to participate in this study? 1. Yes 2. No

Signature of data collector certifying verbal informed consent_____

Thank You!!!

Instruction- Interview

Part I. Socio-Demographic characteristics

SR	**Question**	**Response**	**Skip pattern**
Q101	Age	1.15-19 2.20-24 3.25-29 4.30-34 5.>35	
Q102	Marital status	1. Single 2. Married 3. Divorced/Widowed	
Q103	Religion	1.Orthodox 2.Muslim 3.Protestant 4.Catholic 5. Other (specify)……	
Q104	Educational level	1. Illiterate 2. Informal education 3. Primary education (1-8) 4. Secondary education (9-12) 5. tertiary and above	
Q105	What is your job?	1. Student 2. Self-employed 3.Government employee 4.Private company employee 5.No job 6.House maid 7. House wife	
Q106	What is your husband education	1.illitrate 2.Primary education (1-8) 3.Secondary education (9-12) 4. tertiary and above 5.unknown education	
Q107	What is your average monthly income?	_____Ethiopian Birr	

Part II. Reproductive health characteristics

SR	**Question**	**Response**	**Skip pattern**
201	At what age first menses was seen?	_____ year	
202	Is it your first pregnancy?	1.Yes 2.No	
203	How is your pregnancy condition?	1.wanted 2.unwanted	
204	Did you give birth previously?	1. Yes 2. No	
205	How many children do you have?	1. Null 2. One 3. Two 4. Three and above	
206	Do you want to have children?	1.yes 2.No	
207	When do you want to have a child?	1.with in one year 2.within one-two year 3.above two year 4.I don't know	
208	Have you use Alcohol commonly?	1.yes 2.no	
209	Have you smoke cigarette commonly?	1.yes 2.no	
210	Do you have previous abortion history?	1.yes 2.no	
211	Do you have history of abortion in health institution?	1.yes 2.no	
212	If your answer yes for Q no 210 how	1.once 2.two times	

	many times with the current one?	3.three times 4.four times 5.above four	
213	What Type of abortion do you have currently?	1.induced 2.spontaneus	
214	Why do you want to make abortion today?	1.fetal condition 2.maternal condition 3.rape 4.others	
215	Where do you want to make abortion	1.public 2.NGO	

Part III. Information about post abortion family planning

SR	**Question**	**Response**	**Skip pattern**
301	Have you ever heard about post abortion family planning?	1. Yes 2. No	
302	From where did you hear about post abortion family planning?(multiple answer is possible)	1. Television 2. Radio 3. Magazines/newspapers 4. Health professionals 5. client 6. Friends/relatives 7. Brochures 8. Others specify……	
303	Do you know about presence of post abortion family planning methods**?**	1.Yes 2. No	
304	If yes to **Q303,** which methods do you know? (Multiple answers is possible)	1.Natural 2.condom 3.pills 4.injection/dipo 5.norplant 6.IUD 7.tubal ligation	
305	What do you think about post abortion family planning?	1. Good 2. Bad 3. nothing 4. I don't know	
306	What type of method do you want after abortion?	1. modern 2.traditional 3.Idon't know	

Part IV. Utilization of post abortion family planning and family planning history

SR	Question	Response	Skip pattern
401	Have you ever used any method of family planning?	1.yes 2.no	
402	Have you used family planning within one year?	1.yes 2.no	
403	If your answer is yes for Q402 which method do you use?	1.natural 2.condom 3.pills 4.injection/dipo 5. Implant 6. IUCD 7. tubal ligation	
404	Do you use post abortion family planning?	1. Yes 2.No	
405	Do you got PAFP counseling?	1.yes 2.No	
406	If your answer Yes for Q404 Do you satisfied on PAFP service?	1.Yes 2.No	
407	Do you used PAFP after recent abortion	1.Yes 2.No	
408	If yes for Q407 which method of family planning do you used	1.natural 2.condom 3.pills 4.injection/dipo 5.implant 6.IUCD 7.tubal ligation	
409	Why do/did you use post abortion family planning?(multiple answer is possible)	1. it is good to my health 2. To avoid unintended pregnancy 3. Recommended by Health professional 4. I have enough children 5.being counseled 6. other, specify_____	
410	When do you use post abortion family planning?	1.immediately after abortion procedure 2.When it comes to my mind 3.Idon't know 4.other_____	
411	If u don't use post abortion family	1.idont faced the problem	

	planning what are the reasons? (multiple answer is possible)	again 2.i don't feel comfortable to use 3.i am scared of being counseled 4.idont believe that it is beneficial 5.scared with choice of family planning 6.no interest from my partner 7.others	
Q412	If your answer is yes for Q 507 are you satisfied	1.yes 2.no	

Annex 2: Amharic Version questionnaire

አዲስ አበባ ዩንቨርስቲ የሕብረተሰብ ጤና ሳይንስ ኮሌጅ

የምርምር/ ጥናት ማብራሪያ እና የስምምነት መግለጫ ቅፅ

ጤና ይስጥልኝ

ስሜ_____ ይባላል። እዚህ የመጣሁት የሁለተኛ ዲግሪ የትምህርት መሰናዶ ለማጠናቀቅ የመመረቂያ ጥናት በተመለከተ አሁን በአዲስ አበባ ዩኒቨርሲቲ የጤና ሳይንስ ኮሌጅ የሕብረተሰብ ጤና ት/ቤት የመከላከል ህክምና ክፍል በሚሰጠው የህብረተሰብ ጤና የማስተርስ ዲግሪ ጥናት ላይ መረጃ እየሰበሰብኩ እገኛለሁ።

የጥናቱ ዋና ዓላማ በአዲስ አበባ ከጽንስ ማቋረጥ በኋላ የወሊድ መቆጣጠሪያ አጠቃቀምምን እንደሚመስል ለማጥናት ነው። የመጠየቂያ ቅፁን ለመሙላት ከ20-30 ደቂቃ ይፈጃል። በዚህ ጥናት ላይ በመሳተፍዎ መጠይቁን ለመሙላት የሚጠይቀዉን የተወሰኑ ደቂቃዎች ከማጥፋትዎ በስተቀር የሚደርስብዎት ምንም ጉዳት የለም። ነገር ግን አንዳንድ ጥያቄዎች ግላዊ ቢመስሉም ለጥናቱ አስፈላጊ ናቸዉ። በተጨማሪ በዚህ ጥናት ስለተሳተፉ የሚያገኙት ክፍያ የለም ምንም እንኳን ከጥናቱ ዉጤት እንደ ዜጋ ሊያገኙት የሚችሉት ጥቅም ሊኖር ቢችልም። በዚህ ጥናት መጠይቅ ተሳታፊ የሚሆኑት በፍቃደኝነት ነው። ያለመሳተፍ ወይም በመሀል የማቆም መብት አለሽ/ አሎት ያለ ቅጣት። ቢሆንም ግን የአንች/ የእርስዎ ትክክለኛ መረጃ ለዚህ ጥናት ጠቃሚ ነዉ። እንዲሁም "ከጽንስ ማቋረጥ በኋላ የወሊድ መቆጣጠሪያ" በሴቶች ላይ የተሻለ ለማድረግ በሚደረገዉ እንቅስቃሴ ላይ ትልቅ አስተዋፅኦ አለዉ።

የሚሰጡን መረጃ ሚስጥራዊነቱ የተጠበቀ እና ለጥናታዊ ተግባር ብቻ የሚዉል እና ለማንም የማይገለጽ ይሆናል። ተሳታፊዎችን ለመለየት ልዩ የመለያ ቁጥር ስለምንጠቀም ስምዎትን መጻፍ አስፈላጊ አይደለም። መረጃ ወይም እርዳታ መጠየቅ ካስፈለግዎ የጥናቱን ባለቤት የሆነችውን ወ/ሪት ማህሌት ካሳሁን በስልክ ቁጥር 0913749083 ወይም በኢ-ሜል amahletkassahun@yahoo.com ማግኘት ይችላሉ።

በጥናቱ ለመሳተፍ ተስማምተዋል?

1) አዎ ተስማምቻለሁ 2) አልተስማማሁም

አመሰግናለሁ!

መጠይቁን የሞላዉ ባለሞያ ስም እና ፊርማ ----------

የጥናቱ/ የምርምሩ መጠየቂያ ቅፅ

ክፍል አንድ፡- ማህበራዊ እና የስነ- ህዝብ መረጃ

ተ.ቁ	ጥያቄ	ምላሽ	መለያ
101	እድሜሽ ስንት ነው	1.15-19 2. 20-24 3.25-29 4. 30-34 5. >35	
102	የጋብቻሁኔታ	1. ያላገባ 2. ያገባ 3. የፈታ/የትዳር አጋር የሞተባት	
103	ሐይማኖት	1.ኦርቶዶክስ 2. እስላም 3. ፕሮቴስታንት 4. ካቶሊክ 5. ሌላ-----	
104	የትምህርት ደረጃ	1. ያልተማረ 2. መደበኛ ያልሆነ ትምህርት 3. የመጀመሪያ ደረጃ (1-8) 4. ሁለተኛ ደረጃ (9-12) 5.ሦስተኛ ደረጃ እና በላይ	
105	ስራሽ ምንድን ነው	1. ተማሪ 2. የግል ሠራተኛ (የራስ) 3. የመንግስት ሠራተኛ 4. የግል ድርጅት ሠራተኛ 5. ሥራ አጥ 6. የቤት ሠራተኛ 7. የቤት እመቤት	
106	የባለቤትሽ የትምህርት ደረጃ	1. ያልተማረ 2. የመጀመሪያ ደረጃ (1-8) 3. ሁለተኛ ደረጃ (9-12) 4. ሦስተኛ ደረጃ እና በላይ 5. አላውቀውም	
107	ወርሀዊ ገቢሽ ምን ያህል ነው	----------ብር	

ክፍል ሁለት፡- የስነ - ተዋልዶ ጤናን በተመለከተ መረጃ

ተ.ቁ	ጥያቄ	ምላሽ	መለያ
201	የመጀመሪያ ጊዜ የወር አበባ ያየሽበት ዕድሜ?	_____ዓመት	
202	የመጀመሪያ እርግዝናሽ ነው	1.አዎ 2.አይደለም	
203	ፈልገሽ ነው ያረገዝሽው?	1.አዎ 2.አይደለም	
204	ከዚህ በፊት ወልደሽ ታዉቂያለሽ?	1. አዎ 2. አላውቅም	
205	ስንት ልጅ አለሽ	1. የለኝም 2. አንድ 3. ሁለት 4. ሦስትእናበላይ	
206	ልጅ መውለድ ትፈልጊአለሽ?	1.አዎ 2.አልፈልግም	
207	መቸ ነው መውለድ የምትፈልጊው?	1.በአንድ አመት ውስጥ 2.ከአንድ-ሁለት ዓመት 3.ከሁለት ዓመት በኃላ 4.አላውቅም	
208	አልኮል በተደጋጋሚ ትጠጫልሽ	1.አዎ 2.አልጠጣም	
209	ሲጋራ በተደጋጋሚ ታጨሻለሽ	1.አዎ 2.አላጨስም	
210	የጽንስ ማቋረጥ ነበረሽ?	1.አዎ 2.የለም	
211	በምርመራ የተረጋገጠ የጽንስ ማቋረጥ ነበረሽ?	1. አዎ 2. የለም	

212	ለጥያቄ 210 መልስ አዎ ከሆነ ስንት ጊዜ አቋረጥሽ?	1. አንድ ጊዜ 2. ሁለት ጊዜ 3. ሦስት ጊዜ 4. አራት ጊዜ 5. ከአራት ጊዜ በላይ	
213	ጽንሱ የተቋረጠው በምን አይነት መንገድ ነው?	1. በእኔ ፍላጎት 2. በራሱ	
214	ጽንሱን ማቋረጥ የፈለግሽው ለምንድን ነዉ?	1.የጽንሱ የጤና ችግር 2.የኔ የጤና ችግር 3.መደፈር 4.ሌላ ካለ ይጠቀስ----------	
215	ጽንስ ማቋረጥ የምትፈልጊው የት ነው	1. በመንግስት 2. መንግስታዊ ያልሆነ	

ክፍል ሶስት፡- ከጽንስ ማቋረጥ በኋላ የወሊድ መቆጣጠሪያ መረጃ በተመለከተ

ተ.ቁ	ጥያቄ	ምላሽ	መለያ
301	ከጽንስ ማቋረጥ በኋላ የወሊድ መቆጣጠሪያ መኖሩን ስምተሽ ታውቂያለሽ?	1. አዎ 2. አላውቅም	
302	ከጽንስ ማቋረጥ በኋላ ስለሚደረግ የወሊድ መቆጣጠሪያ ከምንሰ ማሽ? (ከአንድ በላይ መልስ መስጠት ይቻላል)	1.ከቴሌቭዝን 2.ከራድዮ 3. ከመጽሄት/ጋዜጣ 4. ከጤና ባለሞያ 5. አገልግሎቱን ካገኘ ሰዉ 6. ከጓደኛ 7.ከበራሪ ወረቀት 8. ሌላ ካለ ይጠቀስ	
303	ከጽንስ ማቋረጥ በኋላ ስለሚደረጉ የወሊድ	1. አዎ	

	መቆጣጠሪያ ታውቂያለሽ?	2. አላውቅም	
304	ለጥያቄ ቁጥር 303 መልስ “አዎ” ከሆነ የትኞቹን መቆጣጠሪያ ዘዴዎች ታውቂያለሽ? (ከአንድ በላይ መልስ መስጠት ይቻላል)	1. በተፈጥ ሮመንገድ 2. ኮንዶም 3 በአፍ የሚዋጡ እንክበል (ኪኒን) 4 መርፌ 5. ክንድ ላይ የሚቀመጥ (ኖር ፕላንት) 6. በማህፀን የሚገባ (ሉፕ 7. የማህፀን ቱቦ ማስቋጠር	
305	ከጽንስ ማቋረጥ በኋላ ስለሚደረግ የወሊድ መቆጣጠሪያ ምን ታስቢያልሽ	1. በጣምጥሩነዉ 2. ጥሩአይደለም 3. ምንምአላስብም 4. አላውቅም	
306	ከጽንስ ማቋረጥ በኋላ የትኛዉን ዘዴ መጠቀም ትፈልጊያለሽ	1. ዘመናዊ 2. ባህላዊ 3. አላውቅም	

ክፍል አራት፡- ከጽንስ ማቋረጥ በኃላ የወሊድ መቆጣጠሪያ ተግባርን በተመለከተ

ተ.ቁ	ጥያቄ	ምላሽ	መለያ
401	የወሊድ መቆጣጠሪያ ተጠቅመሽ ታውቂያለሽ?	1.አዎ 2.አላውቅም	
402	የወሊድ መቆጣጠሪያ በአንድ አመት ውስጥ ተጠቅምሻል?	1.አዎ 2.አልተጠቀምኩም	
403	ለ 402 ጥያቄ መልሶት አዎ ከሆነ የትኛዉን የወሊድ መቆጣጠሪያ ይጠቀማሉ?	1.በተፈጥሮ መንገድ 2. ኮንዶም 3. በአፍ የሚዋጡ እንክበል (ኪኒን) 4. መርፌ 5. ክንድ ላይ የሚቀመጥ	

		(ኖር ፕላንት) 6. በማህፀን የሚገባ (ሉፕ 7. የማህፀን ቱቦ ማስቋጠር	
404	ከጽንስ ማቋረጥ በኋላ የወሊድ መቆጣጠሪያ ተጠቅመሽ ታውቂያለሽ?	1. አዎ 2.አላውቅም	
405	ከጽንስ ማቋረጥ በኋላ የወሊድ መቆጣጠሪያ የምክር አገልግሎት አግኝተሻል?	1. አዎ 2.አላውቅም	
406	ለጥያቄ ቁጥር 404 መልስ አዎ ከሆነ ባገልግሎቱ ረክተሻል?	1.አዎ 2. አልረካውም	
407	ከጽንስ ማቋረጥ በኋላ አሁን የወሊድ መቆጣጠሪያ ተጠቅመሻል?	1.አዎ 2. አለተጠቀምኩም	
408	ለጥያቄ ቁጥር 407 አዎ ከሆነ የትኛውን አይነት ተጠቀሙ	1.በተፈጥሮመንገድ 2. ኮንዶም 3 በአፍ የሚዋጡ እንክበል (ኪኒን) 4.መርፌ 5. ክንድ ላይ የሚቀመጥ (ኖርፕላንት) 6. በማህፀን የሚገባ (ሉፕ 7. የማህፀን ቱቦ ማስቋጠር	
409	ከጽንስ ማቋረጥ በኋላ የወሊድ መቆጣጠሪያ የምትጠቀሚዉ ለምንድን ነዉ (ከአንድ በላይ መልስ መስጠት ይቻላል)?	1. ለጤናዬ ጥሩ ስለሆነ 2. ያልተፈለገ እርግዝናን ለመከላከል 3. በጤና ባለሞያ ሰለሚመከር 4. በቂ ልጅ ስላለኝ 5. የምክር አገልግሎት ስላገኘሁ 6. ሌላ ካለ ይጠቀስ_____	
410	መቸ ነዉ ከጽንስ ማቋረጥ በኋላ የወሊድ መቆጣጠሪያ የተጠቀመሽው?	1. ወዲያዉ ከጽንስ ማቋረጥ በኋላ 2. ወደ አዕምሮዬ ሲመጣ	

		3. አላወቅም 4. ሌላ ካለ ይጠቀስ_____	
411	ከጽንስ ማቋረጥ በኋላ የወሊድ መቆጣጠሪያ ካልተጠቀምሽ የማትጠቀሚዉ በምን ምክንያት ነው?	1. ችግሩ ድጋሚ አያጋጥመኝም 2. መጠቀም ምኞት አይሰጠኝም 3. የምክር አገለግሎት ስላላገኘሁ 4. ይጠቅማል ብዬ አላስብም 5. የምፈለገው የመቆጣጠሪያ ዘዴ ስላላገኘሁ 6. ሌላ ካለ ይጠቀስ_____	
412	ለጥያቄ ቁጥር 407 አዎ ከሆነ በአገልግሎቱ ረክተሻል?	1.አዎ 2. አልረካውም	

ስለ ትብብርዎ እጅግ በጣም አመሰግናለሁ::

ASSURANCE OF PRINCIPAL INVESTIGATOR

The undersigned agrees to accept responsibility for the scientific ethical and technical conduct of the research project and for provision of required progress reports as per terms and conditions of the Research Publications Office in effect at the time of grant is forwarded as the result of this application.

Name of the student: _____

Date._____ Signature _____

Approval of the primary Advisor

Name of the primary advisor:_____

Date._____ Signature _____