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**Post Abortion Contraceptive Utilization and Associated Factors among women who Received Abortion Service, at Selected Public hospitals, Addis Ababa, Ethiopia, Nov. 2023.**

Tsegie Alemayehu, Shawl Alemu

Key words: Post-abortion, Contraceptive utilization

**ABSTRACT**

**BACKGROUND**

Around 8% (4.7–13.2) of maternal deaths globally are attributed to abortion, according to the WHO. From 44% in 1995 G.C. and 47% in 2003 G.C. to 49% in 2008 G.C., the percentage of all abortions that are unsafe has increased. Developing nations account for the majority of unsafe abortions. It is estimated that slightly more than 40% of pregnancies globally are unintended, either due to method failure, ineffective contraception, or non-use of contraception. If family planning requirements were fully met, it is estimated that three out of every four unsafe abortions could be avoided. Thus, providing for the unmet need of family planning is a useful intervention to lower the rate of induced abortion and unplanned pregnancies.

**OBJECTIVES**

The objective of this study is to assess the utilization of post abortion contraception and associated factors among women who received abortion service at Selected Public hospitals, Addis Ababa, Ethiopia.

**METHODS**

A facility-based, cross sectional study design employed at Selected Public Hospitals, in Addis Ababa, Ethiopia from March 15/2022 to June 30/2022. Data was collected from 355 patients through face-to-face interview using semi-structured pretested questionnaire. Consecutively

selected patients interviewed at Gynecology wards, Michu clinic or outpatient departments. Data entered into Epi Data Info 7 and analyzed by SPSS 27. Binary logistic regression performed to identify factors associated with contraceptive use.

**Result:** Overall post-abortion contraceptive utilization in this study was 74.2%. women from the urban area [AOR=12.58,95% CI (3.76, 42.1)], Higher educational level [AOR, 4.15 95% CI (1.06,16.1)], Women who had Knowledge on how soon fertility returns and could get pregnant again soon [AOR 6.96, 95% CI ((1.79, 26.95)], previous contraceptive used [AOR, 6.67 95% CI (2.48,17.97)], Support from husband /boyfriend or family [AOR 8.83, 95% CI ((3.42,22.81))] were significantly associated with the post-abortion contraceptive utilization.

**Conclusion:** About one-fourth of women who received abortion care have failed to receive contraceptives before they leave the facility Being urban residence, had been completing a college education, had been receiving family planning previously, Knowledge on how soon fertility returns and could get pregnant again and support from husband /boyfriend or family found to be significant factors for post-abortion contraceptive utilization.

**Recommendation:** Women who reside in rural areas and lack formal education should be encouraged to adopt a positive attitude towards contraception and raise their level of awareness as this could greatly boost their use of contraception after abortion.

**Keywords:** Post-abortion, Contraceptive utilization

## 1. INTRODUCTION

### 1.1 BACKGROUND INFORMATION

The medical research, technological advancements, and human rights justification for safe, thorough abortion care have all changed significantly during the previous 20 years. Despite these developments, an estimated 22 million unsafe abortions were carried out a year, leaving an estimated 47,000 women dead and an additional 5 million women disabled. Nearly all of these fatalities and disabilities might have been avoided with family planning, sexuality education, safe, legal induced abortion, and treatment for post-abortion sequelae (1).

In 2010–14 G.C., 23% (22–26) of births and 44% (90% UI 42–48) of pregnancies worldwide were unplanned. The Caribbean had the greatest rate of unplanned pregnancies among the world's

subregions in 2010–14 G.C., with 116 (90% UI 98–156) and eastern Africa with 112 (107–122) per 1000 women aged 15–44 (2).

Maternal mortality in Ethiopia linked to abortions have significantly decreased. Currently, unsafe abortions in medical institutions claim the lives of less than 4% of women. The likely causes of Ethiopia's notable decrease in maternal death from abortion-related complications include: expanded access to safe abortion and post-abortion care; the new abortion law's laxity; continuous post-abortion education for healthcare professionals; growing public awareness of safe abortion; and a rise in the number of private medical facilities offering safe abortion (3).

The usage of contraceptives post-abortion refers to starting family planning procedures right away. The program is crucial in lowering the unmet demand for family planning, increasing the prevalence of contraceptive usage, and preventing unplanned pregnancies and unsafe abortions. (4).

According to Mini EDHS, 2019 G.C report, in Ethiopia 41% of currently married women are using modern methods of family planning, and 1% are using traditional methods(5).

## 2. OBJECTIVES

### 2.1 General objective

To assess the Utilization of post abortion contraception and associated factors, at Selected Public hospitals, Addis Ababa, Ethiopia.

### 2.2 Specific Objectives

- To find out how post-abortion contraception is utilized at specific public hospitals in Addis Ababa, Ethiopia
- To assess the factors associated with the utilization of post abortion contraceptive at Selected Public hospitals, Addis Ababa

### 3. METHODS

#### 3.1 Study area

This study was carried out in public hospitals in Addis Ababa, Ethiopia's capital city, at Yekatit 12 Hospital Medical College, Abebech Gobena MCH, and St. Paul's Millennium Medical Hospital.

The study was a hospital based cross-sectional study that was conducted at Yekatit 12 Hospital Medical College, located in Arada Sub city, Addis Ababa, Ethiopia. It was established in 1922 G.C and is one of the 6 hospitals under Addis Ababa city administration health bureau giving routine health service to a larger community not only in Addis Ababa but also in Oromia region around Addis Ababa. It serves around 230,000 people annually both in emergency and outpatient department. Starting from 2011, the hospital started master program and teaching medical students and Michu clinic in St. Paul's Hospital Millennium Medical College (SPHMMC) in Addis Ababa, Ethiopia, as it is known today, was established through a decree of the Council of Ministers in 2010 G.C, although the medical school opened in 2007 G.C and the hospital was established in 1968 G.C by the late Emperor Haile Selassie.

Yekatit 12 Hospital Medical College implemented electronic recording system since 2020 G.C. It has 10 departments, one of the departments is Obstetrics and gynecology, located in lemi kura Sub city, Addis Ababa, Ethiopia, Named as Abebech Gobena MCH center, which delivers both inpatient and outpatient service and teaches both undergraduate and post graduate programs. There are three subspecialists (2 MFMs and 1 Urogynecologist) and specialists currently working under the department. It has 5 wards with a total of more than 140 beds, patients who come for abortion services are managed in gynecology ward with no SAC unit available alone is most organized automated MCH center providing more than 10,000 delivery services per year including SAC services served by sub- specialists, specialists, residents, and midwives, nurses, and mid- level abortion- care providers.

St. Paul's Hospital Millennium Medical College provides healthcare and training to its students through its different biomedical and clinical departments, which reaches 28 departments one of the departments is obstetrics and gynecology, Michu clinics are organized family planning and comprehensive abortion care clinics situated in different regions of Ethiopia.

Among these clinics, the largest one is situated at St. Paul's Hospital Millennium Medical College and is attended by family planning fellows, family planning sub- specialists, residents, and mid-level abortion- care providers and ,Michu clinic at St. Paul's Hospital Millennium Medical College

delivers service to one of the highest numbers of abortion clients in the country to assess the level of post abortion contraception utilization and its determinant factors in ladies who received abortion care services at Yekatit 12 specialized hospital, Abebech Gobena MCH and St. Paul's millennium hospital medical college.

A board under the Federal Ministry of Health is in charge of it. For its undergraduate medical education, the College developed Ethiopia's first integrated modular and hybrid problem-based curriculum. It is currently expanding to postgraduate programs and broadening the scope of its undergraduate program offerings. In just six years, St. Paul's has grown from three to 250 faculty members, and in that time, it has expanded its teaching facilities and rapidly increased its capacity. More than 2800 clinical, academic, administrative, and support staff members work at the college, teaching medical and nursing students and conducting basic and applied research in addition to providing medical specialty services to patients who are referred from all over the nation. Despite having a bed capacity of over 700 inpatients, The College serves more than that.

The hospitals have both urban and rural catchment populations for tertiary level care. The medical centers serve both undergraduate and postgraduate studies in different departments under Institute of Health. Department of Obstetrics and Gynecology is one of the departments having service delivery units of Gyn Outpatient Department, Anti Natal Care clinic, labor and delivery unit, maternity ward Michu clinic and Gynecology ward. Nurses, midwives, medical interns, residents and senior physicians are working at each unit. This study conducted at Gyn ward, Outpatient Department and Michu clinic.

### 3.2 Study period

The study was conducted from March 15/2022 G.C to June 30/2022 G.C for 4 consecutive months.

### 3.3 Study design

A facility based cross-sectional study design was conducted.

### 3.4 Population

#### 3.4.1 Source population

All pregnant women visited Yekatit 12 Hospital Medical College, Abebech Gobena MCH and St. Paul's Hospital Millennium Medical College, who came for abortion services from March 15/2022 to June 30/2022

### 3.4.2 Study population

Sampled pregnant women from women visited Yekatit 12 Hospital Medical College, Abebech Gobena MCH and St. Paul's hospital millennium medical college who come for abortion services and who fulfill inclusion criteria.

## 3.5 Sample Size and Sampling Procedure

### 3.5.1 Sample Size

Sample size was determined by single population proportion formula assuming post abortion family planning utilization of 70.1% (19), margin of error of 5%, confidence interval of 95% and 10% non-response.

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

$$n = \frac{(1.96)^2 0.7(1-0.7)}{(0.05)^2} = 323$$

n=323 Where;

n = the required sample size

p = the proportion of post abortion contraception use (70.1%)

$Z_{\alpha/2}$  = the critical value at 95% confidence level of certainty (1.96)

d = the margin of error between the sample and the population (5%).

To compensate for non-response rate, 10% of the sample is added.

Finally, a total of 355 women will be sampled for the study.

### 3.5.2 Inclusion and Exclusion criteria

#### Inclusion criteria

All pregnant Women in reproductive age ranging from 15 to 49 years visited Yekatit 12 Hospital Medical College, Abebech Gobena MCH and St. Paul's hospital millennium medical college who come for Save abortion care services

## Exclusion criteria

- Women having psychiatric problem
- Women who are seriously ill who cannot respond

### *3.5.3 Sampling procedure*

All study population came to the study area during the study period was selected consecutively until the sample size was fulfilled.

## 3.6 Study variables

### *3.6.1 Dependent variables*

- ✓ Post abortion contraceptive utilization

### *3.6.2 Independent variables*

#### Socio-demographic characteristics

- ✓ Age
- ✓ Occupation
- ✓ Place of residence
- ✓ Level of education
- ✓ Religion
- ✓ Marital status

#### Reproductive characteristics

- ✓ Gravidity, parity, number of living children
- ✓ planned or unplanned pregnancy, and
- ✓ Knowledge and attitude towards modern contraceptive and its side effects,
- ✓ husband/boyfriend/family support on contraceptive use

## 3.7 Data collection tool and technique

Data collected by face-to-face interview using semi-structured questionnaire at the time of discharge of the women. The questionnaire was first be prepared in English then it was translated into the local language Amharic.

Interns, Nurses and midwives working at Gyn ward, Michu clinics and outpatient department given orientation by the principal investigator and a supervisor and used as data collectors.

### 3.8 Data processing and analysis plan

The collected data entered into epi data and was cleaned and analyzed using SPSS 27. Frequencies, percentage, measures of central tendency and measures of dispersion used to summarize the data. Binary logistic regression performed to identify variables that have association with post abortion contraceptive use. First, bivariate binary logistic regression done to identify candidate variables for multivariable binary logistic regression at p-value cut-off point 0.25.

Next, multicollinearity and interaction assessed among candidate variables in linear regression and cross-tabs respectively. Finally, multivariable binary logistic regression conducted by including interaction term in the model (if any), to identify factors independently associated with post abortion contraceptive use. Odds ratio and corresponding 95% CI will be used to measure strength of association and declare statistical significance respectively.

### 3.9 Data Quality assurance

To maintain the data quality, training was given to the data collectors and supervisors on the methods, especially study population, sampling, data collection approach and tool, before data collection commences.

The questionnaire was first prepared in English, translated into the local language Amharic and then translated back to English to check consistency of translation. The questionnaire pretested in 5 percent of the participants before the commencement of the main research. Each filled questionnaire checked for completeness onsite by the investigator.

### 3.10 Ethical consideration

A formal letter of approval for this study obtained from the Ethical Review Board of Institute of Health (From Yekatit 12 hospital specialized medical college and St. Paul's hospital millennium medical college Institution Review Board and permission directors). Informed consent obtained



from each woman. Participants informed that they have the right to withdraw from the study at any point during data collection. Privacy of participants and confidentiality of collected information kept.

### 3.11 Dissemination of research finding

The result will be submitted to Yekatit 12 specialized hospital medical college, department of Obstetrics and gynecology and Addis Ababa public health research and emergency management directorate. Effort will be made to publish in scientific journals.

### 3.12 Operational and term definitions

- ✓ Birth space- period between delivery and next conception.
- ✓ Long Acting Reversible Contraceptives- either of IUD, Implanon, sino-implant/ jedelle, injectable/ Depo-provera
- ✓ Short Acting Reversible Contraceptives- either of combined oral contraceptive, dermal patch, condoms/diaphragm's, vaginal rings
- ✓ Post abortion contraceptive utilization- a post abortion client's future need and starting of using modern contraceptive after termination of pregnancy before discharge from the hospital.
- ✓ Unintended pregnancy- a pregnancy that is Miss-timed or unwanted.
- ✓ Unwanted pregnancy- pregnancy that occurred when the woman never wanted to become pregnant at all.
- ✓ Knowledge- the scientifically proven belief a woman knows about contraceptives
- ✓ Attitude-the perception a woman has about contraceptives whether it is positive or negative to the real fact on the ground

## 4. RESULT

### 4.1 Sociodemographic characteristics

A total of 341 abortion clients—a response rate of 96.3%—were interviewed in this study out of the 355 women who made up the sample size. Participants in the study were 26 years old on average (SD  $\pm 5.92$ ). The age group of 15 to 24 years old comprised 157 (46%) of the respondents. 299 respondents, or 87.7% of the total, were urban residents. Approximately 41% of the 139 respondents (40.8%) in the study are of Amhara ethnicity, with Oromo people making up the next largest group with 36.4%. 113 (33.1%) of the study participants had a higher level of education. In terms of employment and marital status, 101 (29.6%) were housewives and 204 (59.8%) were single. Approximately 204 respondents, or 59.8%, identified as Orthodox Christians (Table 1).

### 4.2 Reproductive history

The study finding revealed that about two-third 195 (57.2%) of respondents had a history of the previous pregnancy. Among those, 51(15%) participants had also a history of abortion. Most of the pregnancy termination undergone at health institution 42(82.3%). Of the total Participants 146 (42.8%) were nulliparous mothers. Of all the respondents, 123(36.1 %) had 2–4 alive children during the study period (Table 2).

Half of the study participants 172 (50.4%) reported that the current pregnancy was unwanted. (Table 2)

Table 1. Sociodemographic characteristics of women who Received abortion service at Selected Public Hospitals, Addis Ababa, Ethiopia, 2023 (N=341)

Variables	Category	(N)	(%)
Age	15-24 years	157	46.0
	25-34 years	138	40.5
	$\geq 35$ years	46	13.5
Residence	Urban	299	87.7
	Rural	91	12.3
Cohabitant	Parents	182	53.4
	Husband	115	33.7
	Alone	38	11.1
	Others (like street)	6	1.8
Religion	Muslim	47	13.8

	Orthodox	204	59.8
	Protestant	77	22.6
	Others	13	3.8
Ethnicity	Oromo	124	36.4
	Amhara	139	40.8
	SNNP	46	13.5
	Tigray	25	7.3
	Others	7	2.1
Marital status	Single	204	59.8
	Married	119	34.9
	Divorced and widowed	18	5.3
Educational status	No formal education	121	35.5
	Primary	66	19.4
	Secondary	41	12.0
	Higher	113	33.1
Occupation	Student	59	17.3
	Unemployed	32	9.4
	Housewife	101	29.6
	House maid	36	10.6
	Daily laborer	22	6.5
	Merchant	25	7.3
	Government employee	39	11.4
	Private employee	19	5.6
	Others	8	2.3

Table 2 Reproductive history of women who Received abortion service at Selected Public Hospitals, Addis Ababa, Ethiopia, 2023 (N=341)

Variable	Category	Frequency	(%)
Parity	0	146	42.8
	1	66	19.4
	2-4	123	36.1
	≥5	6	1.8
	Yes	51	15.0

Previous history of pregnancy termination	No	290	85.0
Place of termination	Health institution	42	82.3
	Traditional	9	17.7
Decision to discontinue the current pregnancy	Raped	27	7.9
	Incest	8	2.3
	Unplanned/unwanted	172	50.4
	Lack of support (financial problem)	59	17.3
	lethal congenital anomaly	30	8.8
	Maternal indication	7	2.1
	Spontaneously	38	11.1

#### 4.3 Contraceptive and awareness related information

234 respondents, or 68.6 percent of the total, said they had previously used at least one type of contraception. From those who had previously used birth control, 174 respondents (51%) were counselled by health workers. Among the respondents only 133 (39%) knows women can get pregnant as soon as 2weeks after abortion. Most 290 (85%) of respondents planned to prevent pregnancy by using modern form of contraceptives.

#### 4.4 Utilization of post-abortion contraceptive

From the total, 253 respondents (74.2%) were utilized contraceptive after they got post-abortion care services. Among those who used the contraceptive, 35%, 24%, and 22.2% of the participants were used implants, combined oral contraceptive and injectable, respectively. Of those who accepted to take modern form of contraceptive but not taken now 36(12.4%), 26(72.2%) wants to postpone for some period of time and 10 (27.8%) wants to take from other institution because of shortage of contraceptive they preferred. From those who did not accept 51(15.2%), religious reason (21.5%), wished to give birth soon (17.6%), Wrong impression that it may make me infertile (15.8%), pressure from house band / family / friends (13.8%) were the most common reasons cited by respondents who did not use post-abortion contraceptive care services.

Table 3 Utilization and knowledge of contraceptive of Women Who Received abortion service at Selected Public hospitals, Addis Ababa, Ethiopia, 2023 (N=341)

Variable	Category	Frequency	Percentage
Awareness of contraception	Yes	296	86.8
	No	45	13.2
Place Where have you heard/counselled about modern contraceptive	From health workers (through counseling)	174	51.0
	From my friends	53	15.5
	From my husband	19	5.6
	From mass media	38	11.1
	Others	12	3.5
Place where about contraception heard	During ANC visit	101	58.1
	During delivery (abortion, if any)	38	21.8
	Came for this SAC Service	27	15.6
	Other (specify)	8	4.5
Friends or relatives used contraceptive	Yes	236	69.2
	NO	105	30.8
Ever received modern contraceptive	Yes	234	68.6
	NO	107	31.4
Reason against use of modern contraceptive	Fear of side effect	14	13.1
	Religious reason	16	14.9
	pressure from house band / family / friends	16	14.9
	lack of access	8	7.5
	Wrong impression that it may make me infertile	17	15.9
	lack of knowledge about modern contraceptive	17	15.9
	want to be pregnant soon	19	17.8
Modern contraceptive taken method	IUCD	7	3
	Implanon	82	35
	Depo	52	22.2
	COC	56	24
	Condoms	23	9.8
	dermal patch	14	6
Knowing on time of getting pregnant again (as soon as 2weeks)	YES	133	39.0
	NO	208	61.0

Plan to prevent pregnancy	I will use natural method	30	8.8
	Abstain	21	6.2
	Use modern contraceptive	290	85.0
Reason against use of modern contraceptive	fear of side effect	6	11.7
	religious reason	11	21.5
	pressure from house band / family / friends	7	13.8
	lack of access	3	5.8
	Wrong impression that it may make me infertile	8	15.8
	lack of knowledge about modern contraceptive	7	13.8
	want to be pregnant soon	9	17.6
Any form of contraceptive received now	No	88	25.8
	Yes	253	74.2
Modern contraceptive taken categorization	long acting reversible contraceptive	135	53.4
	short acting reversible contraceptive	118	46.6
Reason of not taking now	I want to postpone for some period	26	72.2
	shortage of contraceptive I preferred	10	27.8
Support from husband /boyfriend/family members to use contraceptive	YES	264	77.4
	NO	77	22.6
Reason of husband /boyfriend/family members against use of modern contraceptive	fear of side effect	12	15.6
	choose to use natural method	8	10.4
	religious reason	26	33.8
	want to be pregnant soon	21	27.3
	wrong impression that it may make infertile	10	12.9
Decision on number of children to have and birth spacing	Self	94	27.6
	my husband	12	3.5
	Both of us	83	24.3

#### 4.5. Factors associated with post-abortion contraceptive utilization

In the bivariate logistic regression, place of residence, marital status, educational status, previous use of contraceptive, knowledge of getting pregnancy soon after abortion, and support from husband, boyfriend or family were significant variables at a p-value cut-off point less than 0.25. In multivariable logistic regression, place of residence, educational status, previous use of contraceptive, knowledge of getting pregnancy soon after abortion, and support from husband, boyfriend or family were factors significantly associated with Post Abortion Contraceptive Utilization and Associated Factors among Women Who Received abortion service at Selected Public hospitals, Addis Ababa, Ethiopia

In multivariable analysis the odds of post-abortion contraceptive utilization among pregnant women from the urban area were 12.58 times higher compared with pregnant women living from the rural areas [AOR=12.58, 95% CI (3.76, 42.1)].

Women with a higher education completion level had 4.15-fold (1.06,16.1) higher odds of using contraception than women with no formal education [AOR, 4.15, 95% CI (1.06,16.1)]. In a similar vein, women who had previously used contraception were 6.67 times more likely to do so than their counterparts [AOR, 6.67, 95% CI (2.48,17.97)].

Comparing women who knew how soon fertility returns and could become pregnant again to those who did not, they found that the former were 6.96 times more likely to use contraception [AOR 6.96, 95% CI ((1.79, 26.95)]. Contraceptive use was 8.83 times more common among women who received support from their husbands, boyfriends, or families to use it than among those who did not receive such support [AOR 8.83, 95% CI ((3.42,22.81)]. (Table 4)

Table 4 Multivariable logistic regression model of Factors associated with post-abortion contraceptive utilization among Women Who Received abortion service at Selected Public hospitals, Addis Ababa, Ethiopia, 2023 (N=341)

Variable	Category	Contraceptive utilization		COR (95%CI)	AOR (95%CI)
		NO	YES		
Residence	Urban	21	243	17.36 (6.94,43.38)	<b>12.58(3.76,42.1) *</b>
	Rural	15	10	1	
Marital status	Single	23	177	4.617(1.535,13.891)	2.04(0.38,10.71)
	Married	7	66	5.657(1.577,20.291)	2.095(0.33,13.2)
	Divorced and widowed	6	10	1	1
Educational Status	No formal education	18	77	1	
	Primary	5	41	1.917(0.664,5.537)	3.305(0.858,12.73)
	Secondary	7	31	1.035(0.39,2.72)	1.02(0.294,3.57)
	Higher	6	104	4.05(1.54,10.68)	<b>4.15(1.06,16.1) *</b>
Previous contraceptive use	YES	15	203	5.68(2.74,11.81)	<b>6.67(2.48,17.97) *</b>
	NO	21	50	1	
Knowing on time getting pregnant again (as soon as 2weeks)	YES	6	88	2.667(1.069,6.651)	<b>6.96(1.79,26.95) *</b>
	NO	30	165	1	
Support from husband /boyfriend or family to take contraceptive	YES	12	216	11.67(5.37,25.36)	<b>8.83(3.42,22.81) *</b>
	NO	24	37	1	

\*→ P-value< 0.05



## 5. Discussion

In order to ascertain the percentage of women who utilized post-abortion contraceptive among those who received abortion care, as well as any potential associations with PAFP service, we conducted a study. In this study, 253 participants (74.2%) received post-abortion contraceptives before leaving the facility, which is less than the 97.4% of participants in studies conducted in Brazil, 83% in Nepal, 89% in Tanzania, and Southern Ethiopia (83%),(22)(23)(24)(25).

Given that all respondents in the Brazilian study and 80% of the respondents in the Nepal study had good knowledge of contraceptives in comparison to this study, there may be a reason for the potential disparity. The Tanzania study design was a cohort study, which may account for the differences observed in this investigation. Cultural differences and inadequate counseling skills could be other reasons.

Studies carried out in Pakistan (72.9%), Kisumu, Kenya (76%), Jima (70.1%), and the central zone of Tigray (70.9%) all supported this conclusion. (26)(14)(19)(20).

On the other hand, it was higher than the studies conducted in Dessie (47.5%), Debre Markos (59.2%), shire town (61.5%) and Nepal (49.5%)(27)(21)(17)(28).

This variation in the use of contraceptives may result from the respondents' awareness level, educational attainment, religious convictions, and various misconceptions regarding the availability of family planning and contraceptive services in different study settings and years, as health care has improved over time.

When compared to pregnant women living in rural areas, the percentage of urban pregnant women utilization of post-abortion contraceptive was 12.58 times higher in this study. As per the EDHS 2019 report, Ethiopian urban women are significantly more likely to use any form of contraception (50% versus 38%) than their rural counterparts. Women who lived in urban areas had a similar correlation with the use of modern contraceptives after abortions in an Ethiopian study on the use of contraceptives among reproductive-age women. (5)(29).

Urban women tend to be more educated, earn more money and have better media access than rural women; these factors could all contribute to the higher rates of modern contraceptive utilization.

Compared to women with no formal education, those with a higher education completion level had a 4.15 times higher likelihood of using contraceptives. Studies carried out in Debre Markos, Pakistan, and Tanzania corroborated this conclusion.(21)(26)(24). This may be because women

with higher levels of education are more willing to learn about issues related to reproductive health, allowing them to make well-informed decisions once more. Moreover, educated women would set aside their desire for children in favor of their career development.

About 133 (39%) of the study participants said that if they did not take contraceptives, they might become pregnant as soon as two weeks after having an abortion. This outcome is less than research done in Egypt (56.7%). (30). This may have resulted from the participants' higher educational attainment in Egypt. Still, this is a better result than the Dessie study (34%) (27). which appear to be better than the earlier evidences examined a few years prior to the current study.

Compared to other women, those with a prior history of using contraception were 6.67 times more likely to use contraception. In a similar vein, research from Addis Ababa, Dessie, and Pakistan revealed a significant correlation between the use of contraceptives in the past and the use of contraceptives after abortion.(16)(27)(26). One plausible explanation is that women's awareness regarding the use of post-abortion contraceptives may have been influenced by their prior exposure to family planning services.

Clients who had support from husband / boyfriend or family their husband were 8.83 times more likely to receive contraception as compared to the participants who had no support. A higher proportion of the women who agreed they were encouraged to use contraception by their husbands/partners (66%) were modern method users than those who were indifferent or whose husbands did not encouraged (54-55%) in study done in Angola(31).

This result showed how important it is to concentrate on male involvement in family planning initiatives because husbands and partners do appear to have a significant influence on their wives' choice of future contraceptive methods.

## 6. Conclusion

Roughly 25% of women who obtained abortion care did not obtain contraception prior to departing the facility. Living in an urban area, having completed college, having used family planning in the past, knowing when fertility returns and the possibility of becoming pregnant again, and having support from family, friends, and spouses were found to be important factors for the use of contraceptives after abortion.

## 7. Recommendations

Awareness creation and positive attitude towards contraception should be created for Women's who live in rural and who has no formal education might increase post abortion contraception utilization significantly.

Teaching women's about basic reproductive health may change a lot towards knowing how soon the fertility returns and get pregnant unexpectedly a head of time will increase informed PAFP. As well, empowering and supporting women on contraception utilization is advisable.

## Limitations

Despite being carried out in two sizable public hospitals in Addis Abeba, the study shares the drawbacks of cross-sectional research in that it is not able to provide accurate data regarding the actual use of post-abortion contraceptives. Since the study was done in public institutions, it might not be generalized to abortion services given in private hospitals which may under estimate or overestimate the incidence of post abortion contraceptive utilization.

This study also cannot be generalized for community level general population. This study's limitation was the possibility of recall bias regarding the women's use of contraception in other medical facilities after their discharge.

## 10. References

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