



Postabortion Family Planning Utilization and Associated Factors among Women Seeking Abortion Services: A Cross-sectional Study

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Abstract

Ethiopia is a country which suffers with one of the highest levels of unintended pregnancies and unsafe abortion practices. The aim of this study was to assess the utilization of post-abortion family planning and associated factors among women seeking abortion services in Asella town health facilities. A facility based cross-sectional study design was conducted among women who came for abortion services from July 15 to October 15, 2019. Two hundred seventy-six participants were included using a systematic random sampling technique. Both descriptive and logistic regression analysis were conducted. In multivariate analysis, variables which had a p -value < 0.05 was considered as significantly associated with the outcome variable. Postabortion family planning utilization among study participants was 146 (53.7%) (95% CI=47.4, 59.2). Formal education (AOR=4.45; 95% CI: (1.18, 16.74), previous history of abortion (AOR=0.35; 95% CI: (0.14, 0.85), positive attitude to towards family planning (AOR=2.62; 95% CI: (1.09, 6.27), counseled on postabortion family planning utilization (AOR=3.12; 95% CI: (1.30, 7.51) were significantly associated with post abortion family planning utilization. In this study, nearly fifty percent of the respondents did not utilize Postabortion Family Planning (PAFP). Educational status, history of pervious abortion, decision when to have a child, attitude toward PAFP utilization and counseling about PAFP were significantly associated with post-abortion family planning use. The health care providers who give abortion service should give counseling for all women who get abortion service. More accents should be given to misperception of PAFP to change the negative attitude of utilization of PAFP.

Key words: postabortion, family planning, women, Ethiopia.

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Introduction

Post-abortion family planning (PAFP) is the initiation and use of family planning methods at the time of management of an abortion or before fertility returns after the abortion (USAID, 2019). Using PAFP reduces unintended pregnancies and repetitions of abortions. It also reduces the risks of adverse maternal and perinatal outcomes for pregnancies following induced abortion (Gwyn et al., 2015). Unintended pregnancies were the vast majority cause of abortions (Singh et al., 2018)

Globally, estimated 210 million pregnancies occur each year and 44% of these were unintentional (WHO, 2012). Of the unintentional ones, 56% ended in an abortion (Singh et al., 2018). The unintended pregnancy mainly affects adolescents (aged 15–19 years) which account for about 10 million unintended pregnancies. About 5.6 million of these unintended pregnancies ended by abortion (Neal et al., 2012; Singh et al., 2009). In addition, for those unintended pregnancies that occurred between 2015 and 2019, 61% of them ended in abortion (Bearak et al., 2020). Out of worldwide induced abortions, half of them were unsafe abortions, contributing to about 13% of all maternal deaths (Singh et al., 2009). Almost all of the 98% of unsafe abortion had taken place in developing countries (WHO, 2017).

The estimated unintended pregnancy rate in developing regions is 65 per 1,000 women aged 15–44 as of 2010–2014. Among the highest rate regions, Africa is the one which consists of 89 per 1,000 abortion (Singh et al., 2018). In many African countries, a high proportion (15%–30%) of hospital gynecological admissions is due to complications (WHO, 2017) of unsafe abortions (CSA, 2013). On the other hand, unsafe-abortion accounts for 40 per 100,000 live births maternal mortality ratio in developing regions, but the Eastern Africa region accounts for more than twice of that amount, which was 100 per 100,000 (MOH, 2016).

Integrating postabortion family planning services could decrease unintended pregnancy and repeat abortions (Singh et al., 2018). More than one-fourth of mortality can be prevented when women use contraceptives consistently and correctly (MOH, 2016). In addition, provision of post-abortion contraceptive services helps to safeguard the reproductive health of women. However, according to one report, about 50-20 % women did not take into account post-abortion family planning. According to a study conducted in ten countries in Asia and sub-Saharan Africa, 23 % of the women left the health facility without a contraceptive method after receiving abortion care (Singh, Feters, et al., 2010; MOH, 2016; FMOH, 2016; & Susheela Singh et al., 2010). This results in women facing a high risk of unintended pregnancies, which ends up with unsafe and repeated abortion procedures (MOH, 2016; Singh et al., 2018) (FMOH, 2016; Susheela Singh et al., 2018).

In Ethiopia, about 42% of all pregnancies were unintended and 620,300 were ended by abortions. The annual abortion rate was 28 per 1,000. Individuals of adolescent age were the highest group getting pregnant; 44% were unintended and 46% of this ended up in abortion (Bearak et al., 2020; Moore et al., 2016). The abortion rate is also highest in urban areas. For instance, in Addis Ababa, 92 per 1,000 obtained abortions (Singh et al., 2018; Singh, Tamara, et al., 2010). The studies done in Ethiopia showed that among the women who received abortion services, one-fifth did not receive post-abortion contraceptives with the result that the incidence of repeated abortion was 30% (Moore et al., 2016; Singh, Tamara, et al., 2010).

Ethiopia amended its abortion law in 2005 to permit termination in situations including rape, incest, or fetal impairment. Additionally, if a woman's life or physical health is in danger, if she suffers from a medical or mental health condition, or if she is a minor who is not physically or mentally capable of giving birth, she has the legal right to terminate the pregnancy (FDRE, 2004). Premarital sex and pregnancy are viewed as humiliating and unacceptable in Ethiopia, which leads to negative attitudes regarding unexpected pregnancies, especially for young, unmarried women. Unmarried pregnant women frequently experience social exclusion, rejection from friends and relatives, and are forced to make challenging choices in order to deal with the medical and psychological effects of their pregnancies (Kebede et al., 2012; Mulumebet & Haukanes, 2019). Abortion is still widely stigmatized among women, and it was typically viewed as unacceptable (O'Connell et al., 2022). To avert this, Ethiopia had set a comprehensive strategy of abortion care which improves access of information and methods for uptake of post-abortion family planning. It authorizes health care providers to offer safe abortion and post abortion care mainly post abortion family planning services for women who want it (FMOH, 2017). Despite these efforts, still, service data revealed a low rate of uptake of contraception after abortion care in most facilities (WHO, 2017). The provision of post-abortion contraceptive services helps as it safeguards the reproductive health of the women. Further, it can improve contraceptive acceptance and help break the cycle of repeated unwanted pregnancies. Therefore, this study assessed post-abortion contraceptive utilization and associated factors among women who were seeking abortion service at Asella town health facilities.

Methods

Study Area, Design and Population

Facility based cross-sectional study design was conducted from July 15 to October 15, 2019, in Asella town. Asella is the administrative town of Asri Zone and located 175 kilo meters to Southeast capital city of Ethiopia, Addis Ababa. The total population of the town was 110,433 and 24,406 of them were women of child bearing age (CSA, 2018). According to the town health office 2019 report, in the town there are one referral hospital, two health centers, two private hospitals and two nongovernment clinics (Office, 2019). A woman who came for abortion service were systematically selected and included in study, however, woman who was critically sick and unable to give the response was excluded.

Sample Size Determination and Sampling Procedure

The sample size was determined using stat calc of Epi Info statistical software Version 7. A 95% confidence level, power of 80%, and an assumption of the ratio of unexposed to exposed equivalent to one was assumed for the calculation. Based on this, the sample size was calculated

to be 384. After correction formula was applied and adding 5% non-response rate the final sample size was 279. The women who got the abortion service for the three consecutive months, on average were (N=871) in health facilities which were included in the study. From the seven health facilities, four were included in the study. Those were one government Hospital which was selected purposely because it is the only government hospital in Asella town, and other study areas were selected by lottery methods one government health center, one private hospital and one non-government organization clinic. The sample size was allocated proportionally by population size formula based on their client load of three months antecedent for each health facility. The study participants were selected using systematic sampling technique with interval of three. On the first day of data collection was considered as the first respondent and then, each respondent corresponding to the skip interval was selected.

Data Collection Tool and Data Collection Procedure

Data were collected using structured and pre-tested questionnaire. The tool contained information related to socio-demographic characteristics, health service, reproductive health, and personal factors. The questionnaire was initially prepared in English language and then translated into Afan Oromo and Amharic languages. It was translated back to English language to check for any inconsistencies and understandability. One day training was given for both data collectors and supervisors. The training included the purpose of the study, enumeration procedures, and how to conduct an interview. After data collection, all completed questionnaires were checked for completeness and cleaned manually.

Data Processing and Analysis

Data were checked for its completeness, cleaned and entered using Epi Info Version 7 and then exported in SPSS version 21 for analysis. Data were analyzed using descriptive statistics and logistic regression. Descriptive statistics such as frequency, mean and standard deviation were computed. From logistic regression, bivariable and multivariable were used. All variables with P-value <0.05 in bivariable analysis were moved to multivariable regression to control confounding effect. Adjusted odds ratios along its 95% confidence interval (95% CI) were used to measure the strength of associations. Variables at p-value <0.05 in multivariable logistic regression have been considered as significant association with utilization of post abortion of family planning.

Results

Participants' Socio-demographics

A total of 279 participants were interviewed with the response rate of 272 (97.5%). One hundred thirty (48.2%) women were aged between 26-35 years. The mean age and standard deviation of the respondents were 27.3 ± 5.7 years. Regarding education 235 (86.4%) had formal education. More than two third of the respondents live in household with ≤ 5 family size. About monthly income, 118 (43.4%) of respondent's had 2000-4000 Ethiopian birr. Nearly, 46.0% of the respondents got service at nongovernment organization health facilities (See Table 1).

Table 1: Socio-demographic Characteristics of Utilization of Postabortion Family Planning among Women who seek Abortion Care Services in Asella Town, Southeast Ethiopia in 2019

Variables	Categories	Frequency	Percent
Age (in years)	15-24	48	17.6
	25-34	131	48.2
	35-44	93	34.2
Residence area	Urban	174	64.0
	Rural	98	36.0
Educational status	No formal education	37	13.6
	Formal education	235	86.4
Occupation	Housewife	124	45.6
	Employee	90	33.1
	Student	49	18.0
	Unemployed	9	3.3
Monthly income	<2000 ETB**	85	31.3
	2000-4000 ETB**	118	43.4
	>4000 ETB**	69	25.3
Marital status	Married	179	65.8
	Single	78	28.7
	Divorced/widowed	15	5.5
Time to reach health facility	≤ 30 minute	173	63.6
	>30 minute	99	36.4
Type of health facility	Public	72	26.5
	Private	75	27.5
	NGO*	125	46.0

*NGO-nongovernment organization; **ETB-Ethiopian birr

Reproductive Characteristics

Two hundred forty-four (89%) women were gravid 1-3 and 154 (56.6%) nulliparous. Of the intention of the current pregnancy which leads to abortion, unwanted pregnancy accounts 168 (61.8%). More than half 148 (54.4%) of the participants did not have a desire to have a child in the nearby future (see Table 2).

Table 2: Reproductive Characteristics of Utilization of Postabortion Family Planning among Women seeking Abortion Care Services in Asella Town, Southeast Ethiopia, 2019

Variable	Category	Frequency	Percent (%)
Gravidity	1-3	242	89.0
	≥4	30	11.0
Parity	0	59	21.7
	1-3	154	56.6
	≥4	59	21.7
History of abortion	Yes	49	18.0
	No	223	82.0
Gestational age in weeks	>12 Weeks	106	39.0
	≤12 Weeks	166	61.0
Current pregnancy intention	Unwanted	168	61.8
	Mistimed	104	38.2
Decision when to have child	Both	55	20.2
	Husband	176	64.7
	Women	41	15.1
Discussion with partner / husband	Yes	81	29.8
	No	191	70.2

Knowledge and Attitude toward Post-abortion Family Planning

Less than half (44.5%) of participants had good knowledge and 182 (66.9%) had a positive attitude on postabortion family planning respectively (see Figure 1 below).

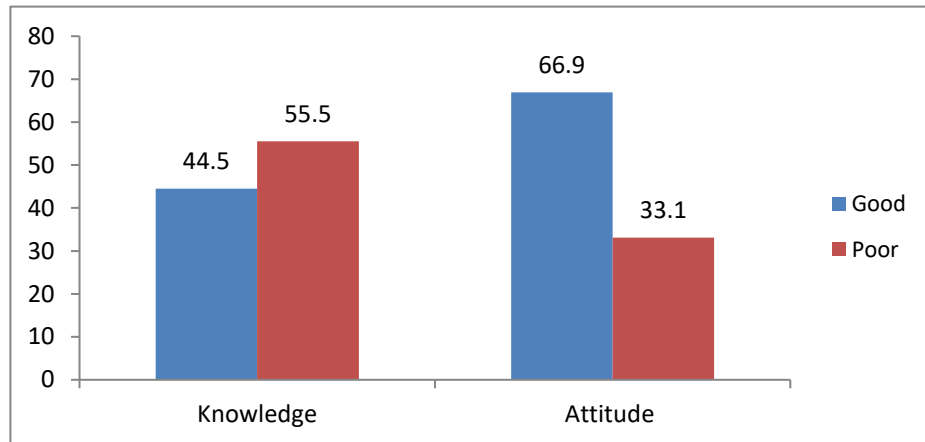


Figure 1: Knowledge and Attitude toward Postabortion Family Planning Utilization among Women who seek Abortion Care in Asella town, Southeast Ethiopia, 2019

Utilization of PAFP and Service Received

Utilization of post-abortion family planning among women who seek abortion care was 146 (53.7%) (95% CI=47.4, 59.2). Regarding counseling of post abortion family planning, 165 (60.7%) women who seek abortion care were counseled and 107 (39.3%) were not.

Factors Associated with Utilization of PAFP

In bi-variate analysis, variables which had a P-value <0.05 were educational status, time to reach health facility, history of abortion, decision to have child, discussion with partner /husband, knowledge about PAFP, attitude toward PAFP and counseled on PAFPPAFP utilization were moved to multivariate model. In multivariate analysis, women who had formal education were 4.45 times more likely to uptake PAFP compared to women who had not formal education (AOR=4.45; 95% CI: (1.18, 16.74)). Women who had no history of abortion were (AOR=0.35; 95% CI: (0.14, 0.85)) less likely to utilize PAFP compared to women who had previous history of abortion. In addition, women who had positive attitude were 2.62 times (AOR=2.62; 95% CI: (1.09, 6.27)) more likely to utilize PAFP compared to women who had poor attitude. Moreover, women who counseled on PAFP utilization were 3.12 times (AOR=3.12; 95% CI: (1.30, 7.51)) more likely to utilize PAFP compared to their counterparts (see Table 3).

Table 3: Multivariable Logistic Regression of Factors associated with Utilization of PAFP among Women seeking Abortion Care Services in Asella Town, Southeast Ethiopia, 2019

Factors		Utilization of PAFP		COR (95% CI)	AOR (95% CI)
		Yes	No		
Educational status	No formal	25	12	1	1
	Formal	101	134	2.76 (1.33, 5.77)	4.45(1.18, 16.74) *
Time to reach health facility	≤30	113	60	3.77(2.24,6.35)	1.52 (0.64, 3.60)
	>30(minute)	33	66	1	1
History of abortion	Yes	16	33	1	1
	No	113	110	0.47(0.20, 0.88)	0.35 (0.14, 0.85) *
Decision when to have child	Both	39	16	1	1
	Husband	90	86	2.33(1.21, 4.47)	1.94(0.68, 5.51)
	Wife	17	24	3.44(1.47, 8.06)	4.67(1.25, 17.54) *
Discussion with partner	Yes	63	18	4.55(2.507, 8.27)	2.45 (0.83, 7.29)
	No	83	108	1	1
Knowledge about PAFP	Good	84	37	3.26(1.97,4.00)	1.33 (0.49, 3.57)
	Poor	62	89	1	1
Attitude toward PAFP	Positive	106	76	1.74(1.05, 2.90)	2.62 (1.09, 6.27) *
	Negative	40	50	1	1
Counseled on PAFP	Yes	89	28	5.46(3.20, 9.34)	3.12 (1.30, 7.51) *
	No	57	98	1	1

Significant at P<0.001=***; at P<0.01=** and P<0.05=*, AOR= Adjusted Odds Ratio; CI=Confidence Interval; COR= crude odd ratio

Discussion

Preventing unplanned and repeated abortions requires the use of post-abortion contraceptives. However, this study revealed that only 53.7 percent of women utilized post-abortion family planning. The magnitude of PAFP utilization revealed in this study is in line with previous studies findings of 47.5% (Seid et al., 2012) and (59.2%) (Kokeb et al., 2015), and lower than the studies conducted in Shire town (61.5%) (Moges et al., 2018), Gambella, Ethiopia (74.4%) (Abamecha et al., 2016), Central town of Tigray (80.4%) (Hagos et al., 2018) and Addis Ababa (68.8%) (Muchie et al., 2021). It might be because, in contrast to the respon-

dents in this study, those in the central Tigray town and Addis Ababa received counseling, and the majority of them had high educational status. The residence and varied misunderstandings about family planning services, as well as the variance in study environments, might be the other possible reasons.

The current study result also higher than the study conducted in Debrberhan, Ethiopia (45.8%) (Muche et al., 2019) and Kenya (31%) (Evens et al., 2014). The difference from the current study may be due to the cohort study design of the Debrberhaan study. Possible explanations for the study disparity in Kenya include cultural and health care system differences between the two countries.

Education level, abortion history, a woman's choice of when to have a child, a good attitude about PAFP, and receiving counseling on PAFP were significantly associated with using post-abortion family planning after receiving the service in this study. In the current study, educational level of study participants has significant association with PAFP utilization: women who had formal education were more than four times more likely to utilize PAFP methods as compared to those who did not have formal education. This finding is consistent with studies done in Gambella, Ethiopia (Abamecha et al., 2016), Shire town (Moges et al., 2018) and Debre Markos, Ethiopia (Muche et al., 2019). It is the reality that educated women have easier access to information, are better aware about their reproductive rights, and are able to make decisions about the number of children they want while keeping considerations for carrier development in mind.

Women who hadn't previously undergone an abortion were less likely to use post-abortion family planning than respondents who hadn't. This result agreed with research's conducted in Addis Ababa and Mongolia (Phiri et al., 2022). The research conducted on Mongolian women, modern contraceptive use was less common among women who reported to having an abortion history. Instead, they employed abstinence as a method of contraception.

Respondents who were counseled on post abortion family planning were more likely to utilize post abortion family planning than respondents who were not counseled. Similarly, the studies conducted in Gambella, Ethiopia (Abamecha et al., 2016), Debre Markos, Ethiopia (Muche et al., 2019) and Shire town (Moges et al., 2018) showed that women who had counseled was significantly associated with postabortion contraceptive utilization. Also, a study conducted on women in low income countries showed that postabortion counseling had an effective tool to increase the usage of contraceptives. This evidently indicated that postabortion family planning counseling make real difference on postabortion contraceptive utilization. Limitation of this study was that cross-sectional design was used and therefore we cannot report cause and effect.

Conclusions

In this study nearly, fifty percent of the respondents did not utilize PAFP. Educational status, history of pervious abortion, decision when to have a child, attitude toward PAFP utilization and getting counseling about PAFP were significantly associated with post-abortion

family planning use. About two fifth of the respondents did not counseled. The health care providers who give abortion service should give counseling for all women who got abortion service. More accents should be given on misperception of PAFP to change the negative attitude of utilization of PAFP. Educational empowerment of women has to be still focused on as women who had education more likely to prevent unintended pregnancy and its consequences.

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Abbreviations:

PAFP: Postabortion Family Planning
WHO: World Health Organization
ANC: Antenatal Care
COR: Crude Odd ratio
AOR: Adjusted Odd Ratio
ETB: Ethiopian birr
NGO: Nongovernmental Organization

Declarations:

Ethical Consideration

Ethical clearance was obtained from Arsi University, college of health sciences ethical review committee. Then, official letter of cooperation was written to health facilities. Information about the study was given to the participants, including purpose and procedures, potential risk, benefit and ensures the right of participants to withdraw from the study at any time. Informal consent was obtained from participants before starting the interview. In order to protect the confidentiality of information name and other identification was not included in a questionnaire.

Consent for Publication

Verbal consent was obtained from the study participants after clarifying the aim of the study. The respondents had the right to respond fully or partially to the questionnaire. All the information given by the respondents was used for research purposes only, and confidentiality was maintained by omitting the name of the respondents.

Availability of Data and Materials

The datasets that used in this study for analysis and other information are available currently in the hands of corresponding author. Therefore, the information can be provided upon request.

Declaration of Interest

There were no conflicts of interests for any of the authors.

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Author Contributions:

DW, GA & AJ conceived and designed the study. BW, DW GA & AJ performed analysis and interpretation of the data. BW, GA & AM assisted the analysis. BW & DW prepared the manuscript. GA & AJ critically reviewed the manuscript. All authors read and approved the final manuscript.

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