

## CLINICAL ARTICLE

## Gynecology

# Post-abortion contraceptive adoption in Ethiopia

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## Abstract

**Objective:** To assess the effect of couple counseling on modern contraception adoption among women receiving abortions.

**Methods:** A cross-sectional study was conducted between October 2019 and May 2020 at the abortion clinic of Saint Paul's Hospital Millennium Medical College, Addis Ababa, Ethiopia. Women receiving abortion care were interviewed using Open Data Kit. Logistic regression was used to assess predictors of modern contraception adoption.

**Results:** During the study period, a total of 326 women receiving abortion care were interviewed and 112 (34.4%) received couple counseling. Of the 112, 89 (79.5%) adopted modern contraception. The odds of using a modern contraceptive method were 2.34 times higher among women whose partner approved (adjusted odds ratio [aOR] 2.34; 95% confidence interval [CI] 1.05–5.22) compared with those without partner approval. The odds of using a modern contraceptive method was 1.78 times higher among women who believed they had partner support (aOR 1.78; 95% CI 1.03–3.10) compared with women without support.

**Conclusion:** Few women received couple counseling for contraception. Partner approval and a woman's belief that her partner supports her contraception decision were associated with contraception adoption.

## KEYWORDS

abortion care, adopted contraception, comprehensive abortion care, contraception, family planning counseling, partner counseling, post-abortion care, used contraception

## 1 | INTRODUCTION

According to the National Demographic and Health Survey in 2016, the total fertility rate in Ethiopia was 5.5 births per woman, and 22% of married women had an unmet need for family planning.<sup>1</sup> The total demand for modern contraception has increased from 45% in 2000 to 58% in 2016.<sup>1</sup>

Given the high unmet need for contraception, as well as the increasing numbers of abortions occurring in health facilities in

Ethiopia, post-abortion contraceptive counseling and provision is an ideal time to extend services to women who are in need of contraception and are interacting with the health system.<sup>1-3</sup>

If the need for modern contraceptive methods was fulfilled in Ethiopia, estimates show unintended pregnancies would decrease by 89%–92%.<sup>3</sup> In low-income countries, the use of family planning would reduce unintended conceptions by more than two-thirds and prevent about 70% of maternal deaths per year.<sup>4</sup>

In the absence of contraceptives, fertility following induced abortion resumes in the first 3 weeks, and can promptly lead to

additional induced abortion. This highlights the value of providing family planning counseling to all women who present for comprehensive abortion care.<sup>5</sup>

Post-abortion family planning includes voluntary contraceptive counseling to reduce future unplanned conceptions and repeat abortions.<sup>6</sup> The abortion care service may be a woman's first point of entry to the healthcare system. It provides an opportunity to counsel and provide family planning services to women who are otherwise not reached by health services.<sup>7</sup>

The family system in many low-income countries is patriarchal with males being the main source of income and also often the decision makers in the household. For this reason, males need to be encouraged to accompany their partners during family planning visits so that they can receive information that enables them to sensibly partake in contraception use and decision making.<sup>7,8</sup> This study was designed to assess the effect of couple counseling on modern contraception adoption among post-abortion patients in a referral and teaching hospital in Ethiopia.

## 2 | METHODS

This cross-sectional study was conducted at the abortion clinic of Saint Paul's Hospital Millennium Medical College (SPHMMC), Addis Ababa, Ethiopia, among women receiving abortion care between October 1, 2019 and May 31, 2020. Ethical approval of and clearance for the study was obtained from the Ethics Review Board of SPHMMC before the start of data collection. Informed consent was obtained from all women who were interviewed. SPHMMC is the second largest hospital in Ethiopia and is known for its abortion clinic, which is locally called the "Michu clinic" or "comfort" clinic. SPHMMC is the first hospital in Ethiopia to have Family Planning Fellows who provide family planning and comprehensive abortion care services at the Michu clinic. Michu is the only clinic in Ethiopia that provides a second-trimester surgical abortion (dilatation and evacuation) service. At this clinic, dilatation and evacuation services are given up to 24 weeks of pregnancy, and beyond 24 weeks up to 28 weeks oxytocin or Misoprostol is used to induce abortion. The method of pregnancy termination is based on the woman's choice after informing her of the pros and cons of medical and surgical methods. On average, eight women visit the abortion clinic each day. The clinic is open 24 h a day, 7 days a week, and all services are provided free of charge.

Women receiving abortion care admitted to the clinic were given family planning counseling by first-year residents. Because the national family planning guideline recommends counseling to be given with their partner, women were advised to bring their partners as much as possible and if he was not at the facility with her, she was given the option to communicate with him through a phone call in between the counseling session. The national guideline recommends that family planning counseling should be given following the REDI model (Rapport, Exploration, assisting in a Decision making process, and Implementation).<sup>7</sup> For consistency

in counseling, a printout of the national family planning counseling guideline was laminated and displayed at the desk of the counseling physician.

All women receiving abortion care were screened for inclusion in the study, and those that met the inclusion criteria were invited to participate. All those invited participated in the study. The exclusion criteria were patients who had hysterectomy as a complication of abortion, those seeking abortion after a rape, women with major psychiatric disorders precluding interviews, and women who were pregnant after casual sex. Casual sex was defined as sexual intercourse that happened on only one occasion and if the relationship discontinued after that occasion. Those who were pregnant from casual sex were excluded from the study because they may not have the chance to communicate with the male partner during or after post-abortion counseling or it could have been transactional in nature, when the motive is only to benefit materially.

Assuming that women bring their partners randomly, a convenience sampling method was used to interview, whereby every consecutive eligible participant was interviewed. The sample was calculated using single population formula  $n = Z^2 p (1 - p) / w^2$ , where  $Z$  (the  $Z$ -score),  $p$  is a percentage, and  $w$  is the width (precision). According to a study performed in Ethiopia, 25% of women who were counseled with their partner adopted a contraception method.<sup>9</sup> This proportion was taken to calculate the sample size. Assuming a precision of 5% and 95% confidence limits, a sample size of 288 was calculated. A total of 326 women were interviewed.

Data were collected through an exit interview at the Michu clinic and abortion ward by first-year residents who were not involved in the counseling. Variables that have been found to be associated with contraceptive usage in previous research as well as factors deemed important by the study team, including age, marital status, level of education, source of household income, number of children, type of counseling, decision maker at home, previous use of contraception methods, and type of abortion, were included in the questionnaire.

The questionnaire was developed through a literature review and face validity was established via review by the study team. The questionnaire was translated into Amharic (the local language) and back-translated to English to ensure consistency and conceptual equivalence. The quality of the data were assured by training data collectors and supervisors and by pretesting the questionnaire with 5% of study women using ODK (Open Data Kit), an Android-device-based data collection tool.

Religion was originally collected as a categorical variable. For analysis, it was collapsed to Muslim or Christian.

Partner approval was assessed through the question "Did your partner approve a specific contraception method among the contraceptive options?" This question was asked of the partner if he was counseled with her or of the woman if she communicated with him through a phone call. Partner's support of her contraception decision was assessed through the question "Do you believe that your partner is supportive about your family planning decision?"

ODK data were exported to and analyzed using STATA Statistical Software: Release 14 (StataCorp LP, College Station, TX, USA). Descriptive statistics were calculated and presented as frequencies and percentages. Odds ratio (OR) and 95% confidence interval (CI) are reported to demonstrate an association. The independent variables were the type of counseling (with or without a partner), partner approval of contraceptive method, age, and marital status. The dependent (outcome) variable was modern contraception adoption and this was documented when women had acquired their chosen contraceptive upon discharge from the hospital. Bivariate analysis was conducted to assess predictor variables. Those variables with a *P* value less than 0.2 were used for multivariate analysis.

### 3 | RESULTS

During the study period, 326 post-abortion care patients were interviewed. Of these, 112 (34.4%) received family planning couple counseling. The sociodemographic characteristics of women are shown in Table 1. The mean ( $\pm$  standard deviation) age of women counseled on family planning was 24.5 (4.7) years and 167 (51.2%) were in the age range 20–25 years. A total of 297 (91.1%) women attended school and 100 (33.7%) had primary education. In all, 139 (39.6%) were private employees and the mean family income was US\$ 109.6 per month; 143 (43.9%) were married and 208 (63.8%) were Orthodox in religion.

The sociodemographic characteristics of the partners of women who participated in couple counseling are shown in Table 2. The mean age of partners was 29.8 years and 144 (44.2%) were between 26 and 33 years of age. In all, 303 (92.9%) had attended school and 95 (31.4%) completed high school up to grade 10.

Of all women counseled, 251 (77%) chose a family planning method. Of the 251 who chose a contraception method, 249 (99.2%) adopted a reversible contraception method and 2 (0.8%) chose permanent contraception (bilateral tubal ligation). These women did not take the method upon discharge as bilateral tubal ligation is performed as an elective procedure, which they would have to return to the facility to receive. Excluding these 2 (0.8%), among the 249 women who adopted a contraception method, 80 (32.1%) chose a short-acting method and 169 (67.9%) adopted long-acting (implant and intrauterine device) contraception. The most commonly adopted method was an implant, chosen by 159 (63.8%) of the women, followed by injectables, chosen by 45 (18.1%) women, while 35 (14%) adopted pills, and 10 (4.1%) chose the intrauterine device (Figure 1).

Of the 214 women without couple counseling, 160 (74.7%) adopted a contraception method, compared with 89 of the 112 (79.5%) women who received couple counseling.

Among the 326 women receiving abortion care during the study period, 273 (83.7%) had an induced abortion at a health institution, and 53 (16.3%) reported having a spontaneous abortion. In all, 119 (36.5%) of the women were accompanied by their partner, 112 (34.4%) were accompanied by a friend, 56 (17.2%) were accompanied by a family member, and 39 (11.9%) came alone during their

**TABLE 1** Sociodemographic characteristics of post-abortion care of women at an abortion clinic in St. Paul's Hospital Millennium Medical College

Characteristics <sup>a</sup>	n	%
Age of the woman, years		
14–19	38	11.7
20–25	167	51.2
26–31	91	27.9
$\geq 32$	30	9.2
Mean $\pm$ SD	24.5 $\pm$ 4.7	
Woman attended school		
No	29	8.9
Yes	297	91.1
Educational level (n = 297)		
Read and write	7	2.4
Elementary	100	33.7
High school-up to grade 10+2	122	41.1
Diploma and above	68	22.9
Occupation		
Government employee	24	7.4
Merchant	22	6.7
Private employee	129	39.6
NGO employee	4	1.2
Unemployed	147	45.1
Family monthly income; US\$ (mean $\pm$ SD)	109.6 $\pm$ 135.7	
Religion		
Christians	269	82.5
Muslims	57	17.5
Marital status		
Married	143	43.87
Not married	183	56.13

<sup>a</sup>n = 326 unless mentioned otherwise.

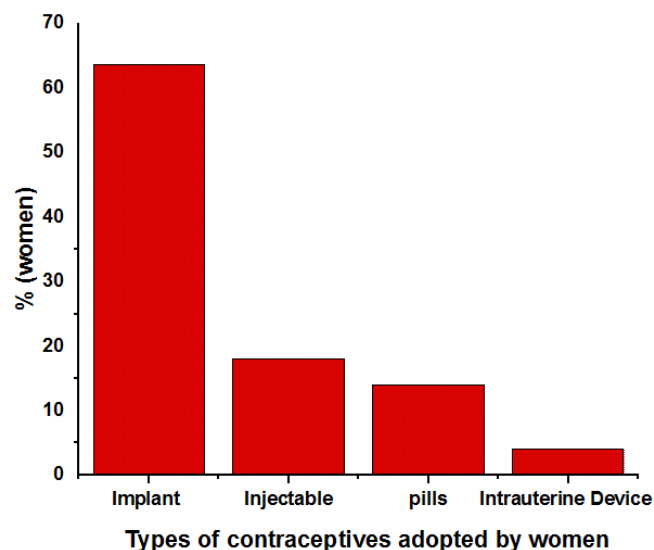
visit. Of the total abortion care patients, 231 (70.9%) reported an unplanned pregnancy.

In bivariate analysis, partner counseling was not significantly associated with contraception adoption (*P* = 0.344), but the use of modern contraception method was 2.45 times higher among women who reported that their partner approved the use of contraception compared with those without partner approval (crude OR 2.45; 95% CI 1.13–5.33; *P* = 0.024) (Table 3). Those variables with a *P* value below 0.2, as well as variables deemed important to control for by the study team, were included in the multivariate analysis.

In multivariate analysis, the odds of using a modern contraceptive method were 2.34 times higher among women whose partner approved (adjusted OR 2.34; 95% CI 1.05–5.22; *P* = 0.037) compared with those women without partner approval. The odds of using a modern contraceptive method were 1.78 times higher among women who believed they had partner support (adjusted OR

**TABLE 2** Sociodemographic characteristics of partners of post-abortion care patients at an abortion clinic in Saint Paul's Hospital Millennium Medical College

Characteristics	n	%
Age of the partner, years		
18–25	98	30.1
26–33	144	44.2
≥34	84	25.8
Mean ± SD	29.8 ± 6.3	
Partner attended school		
No	23.0	7.1
Yes	303.0	92.9
Educational level (n = 303)		
Read and write	7	2.3
Elementary	76	25.1
High school to 10+2	139	45.9
Diploma and above	81	26.7



**FIGURE 1** Types of contraceptives adopted by women

1.78; 95% CI 1.03–3.10;  $P = 0.040$ ) compared with women without support (Table 4).

## 4 | DISCUSSION

In this study, partner counseling was not significantly associated with contraception adoption; however, women whose partner approved of contraception were 2.34 times as likely to adopt contraception, and women who believed their partner to be supportive were 1.78 times as likely to adopt a method.

In this study, counseling with a partner, by itself, was not a statistically significant predictor of contraception adoption, but this does

**TABLE 3** Bivariate logistic regression analysis of predictors' contraception adoption among women receiving abortion care

Variables	Crude OR (95% CI)	P value
Counseled with partner	1.30 (0.75–2.26)	0.344
Partner approved <sup>a</sup>	2.45 (1.13–5.33)	0.024
Woman believes her partner supports her <sup>a</sup>	1.69 (0.99–2.88)	0.056
Religion (Muslim)	2.11 (0.95–4.68)	0.065
Family income <sup>b</sup>	1.33 (0.77–2.31)	0.301
History of abortion	1.61 (0.81–3.18)	0.173
Women can make decision <sup>c</sup>	2.11 (0.98–4.55)	0.056
Type of abortion (induced)	0.82 (0.40–1.69)	0.592
Accompanied by partner	1.22 (0.64–2.65)	0.540
Married	0.86 (0.51–1.43)	0.559

Abbreviations: CI, confidence interval; OR, odds ratio.

<sup>a</sup>Contraception use.

<sup>b</sup>Only from woman.

<sup>c</sup>On household issues.

**TABLE 4** Multivariate logistic regression analysis of predictors' contraception adoption among women receiving abortion care

Variables	Adjusted OR (95% CI)	P value
Partner-approved <sup>a</sup>	2.34 (1.05–5.22)	0.037
Woman believes her partner supports her <sup>a</sup>	1.78 (1.03–3.10)	0.040
Religion (Muslim)	7.67 (0.99–59.27)	0.051
Type of abortion (induced)	1.04 (0.49–2.19)	0.923
Women can make decision <sup>b</sup>	2.13 (0.97–4.66)	0.059
History of abortion	1.53 (0.61–3.83)	0.359

Abbreviations: CI, confidence interval; OR, odds ratio.

<sup>a</sup>Contraception use.

<sup>b</sup>On household issues.

not suggest that partner dynamics are not important among this study population. Partner approval of a contraception method and the woman's belief that her partner supports her contraception decision were found to be significantly associated. Counseling provides an opportunity for the counselor to increase the partner's approval for contraception use by direct assessment of his approval, and an opportunity for him to share those feelings with his female partner. Similarly, many studies have shown that involving male partners in contraception counseling leads to better contraceptive uptake and continuation within couples.<sup>9–13</sup>

Women whose partner approved a specific contraception method had an increased odds of contraception use. Our findings support another study conducted in Ethiopia, which showed that men's approval of the use of contraception was associated with male involvement in contraception adoption.<sup>9</sup>

Consistent with the World Health Organization (WHO) recommendation, most of the women receiving abortion care in this study

were counseled for and adopted a modern contraception method. The WHO medical eligibility criteria for contraceptive use state that the use of combined hormonal methods and the copper and levonorgestrel-containing intrauterine device can all be started immediately after an abortion.<sup>14</sup>

All post-abortion care patients in the study period were counseled for modern contraception in particular following the national guidelines of Ethiopia, which recommend universal family planning counseling.<sup>7</sup> All women who chose a contraception method chose a modern method and received it upon discharge. According to a study performed in Turkey, the introduction of modern contraception immediately after abortion was the most important factor for modern contraception use.<sup>15</sup>

Partners often accompany women seeking abortions to the clinic, allowing health providers to involve them during contraception counseling. Furthermore, patients appreciated having an informed partner who supports them and shares their contraception decision making.<sup>16</sup> However, in this study, the majority of women seeking an abortion visited the clinic alone or with a friend. In our experience, a partner usually accompanies a woman when she has an emergency spontaneous abortion. Because of stigma in society, women requesting a safe abortion service visit the clinic alone.

In this study, 70.9% of the women receiving abortion care had an unplanned pregnancy and the majority of women adopted a long-acting contraception method upon discharge, which gave them a chance to avoid repeat abortions due to unplanned pregnancy. This is similar to the study by Gemzell-Danielsson et al.<sup>17</sup>

This study has some limitations. The use of convenience sampling, rather than random sampling, limits the generalizability. However, we assumed that women visit our abortion care clinic with their partners randomly and to decrease selection bias we made the data collector a different person from the counselor. Additionally, to standardize the family planning counseling a copy of the REDI model was available at the bedside of every woman post-abortion in the ward and on the desk at the abortion clinic. Every women receiving abortion care irrespective of counseling with or without a partner was counseled following the national guideline.

In conclusion, only 34.4% of women receiving abortion care received couple contraception counseling. Partner approval and a woman's belief that her partner supports her contraception decision are associated with contraception adoption.

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## CONFLICTS OF INTEREST

The authors have no conflicts of interest.

## AUTHOR CONTRIBUTIONS

AT contributed to the study planning, design, data collection and analysis, and writing of the manuscript. MW and SDC contributed

to the study planning, data analysis, and editing of the manuscript. BG, BN, and MA contributed to the study planning and editing of the manuscript.

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