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## Original Research Article

## Understanding factors affecting the acceptance of post-abortion contraception: A comprehensive analysis

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## ABSTRACT

**Objectives:** To assess the proportion of post-abortion contraceptive acceptance and the determinant factors in the utilization of contraception.**Materials and Methods:** It is a prospective observational study done on 468 women who presented for abortion care in a tertiary care centre. Data were collected using a pre-structured questionnaire, counselled for contraceptive usage. The family planning method accepted was noted and followed up after one month. Data were analysed using descriptive statistics and expressed in the form of frequency and percentages.**Results:** In the present study, the magnitude of acceptance of post-abortion contraception was 73.08%. Most women were in the age group 21-30 years (62.82%), the majority belonged to lower socioeconomic status (43.16%), 78.62% were homemakers. Age of the women, education status, and history of the previous usage of contraception showed a positive association with acceptance of post-abortion contraception. The most accepted method was tubectomy (24.35%) followed by barrier contraception (20.51%). During follow-up after 1 month, 69.24% were willing to continue the same method and 5.1% opted for a change in the contraceptive method. The common determinant factors for not opting for post-abortion contraception were due to religious belief, partner opposition, fear of side effects of contraceptive methods and willingness to conceive again shortly.**Conclusion:** The proportion of post-abortion family planning utilization is good but could be improved. Education before and especially at the time of abortion strongly influenced the usage of family planning services especially in rural areas where the accessibility is comparatively low. Family planning counseling during the time of abortion plays an important role in accepting post-abortion family planning services. At all levels of health care, family planning counseling and services should be provided to those who come for abortion to reduce maternal morbidity and mortality.This is an Open Access (OA) journal, and articles are distributed under the terms of the [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License](https://creativecommons.org/licenses/by-nc-sa/4.0/), which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.For reprints contact: [reprint@ipinnovative.com](mailto:reprint@ipinnovative.com)

## 1. Introduction

Post-abortion contraception is best started as early after abortion, due to possibility of early ovulation resumption.<sup>1</sup> The provision of contraception following an abortion is excellent opportunity to address the unmet needs of family planning.<sup>2</sup> The active use of contraceptive methods reduces the need for abortion and is beneficial to women and their

families in many ways. Despite the legislative protection with the historic Medical Termination of Pregnancy Act of 1971, unsafe abortion remains the third leading cause of maternal mortality in India, approximating deaths of 8 women per day due to unsafe abortions and its complications.<sup>3</sup> Maternal deaths were 1.8 times higher in women without contraceptive use as contraceptive use is one of the many interventions to prevent unwanted pregnancies and in turn reduce maternal mortality.<sup>4</sup> Ensuring Comprehensive Abortion Care (CAC) services

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in now an integral component of the efforts made by the Government of India to bring down maternal morbidity and mortality in the country.<sup>5</sup>

Contraception should be offered to all women who are seeking abortion.<sup>5</sup> WHO recommends to all women who wish to start contraception, should receive their preferred method during the abortion, if unavailable then a referral should be provided.<sup>6</sup> Female sterilization is one of the acceptable methods after an uncomplicated abortion. Hormonal methods like oral pills, patches, rings, injectables and implants may be started on the day of medical abortion.<sup>7</sup> Reduced acceptance of contraception when the provision is delayed, strongly supports that contraceptive methods should be started immediately.<sup>8</sup> of women, marital status, prior history of use contraception, involvement of others in decision making and family planning counselling were significantly associated with post-abortion contraception acceptance.<sup>9</sup> Long-acting contraceptive methods have higher continuation rates and lower pregnancy rates compared to short-acting methods as they give superior protection against unintended pregnancies.<sup>10</sup> Most of the unwanted pregnancies in developing countries are due to restricted access to family planning services but post-abortion family planning provides an opportunity to offer services immediately after abortion care.<sup>11</sup> Thus, this study was undertaken to assess the proportion of post-abortion contraception acceptance and also to evaluate the determinant factors in the acceptance of the same.

## 2. Materials and Methods

The present study was a hospital-based observational study done for 2 years from January 2020 to December 2021 at a tertiary care center in south India. The study was conducted among 468 married women who came for abortion care including medical termination of pregnancy (MTP) in 1<sup>st</sup> and 2<sup>nd</sup> trimester upto 20 weeks during the mentioned study period. The universal sampling technique was followed. The data was collected using a pre-structured and pretested questionnaire which was administered by a single interviewer. Socio-demographic parameters, detailed obstetric history, socioeconomic status by modified Kuppuswamy scale, history of previous contraceptive usage and examination details were noted. Gestational age was estimated based on history and the same was confirmed with ultrasonography.

Counselling for contraceptive usage was given during pre-abortion and immediate post abortion period. If the patient opted for any temporary contraceptive method, the same was prescribed and noted. If the participants opted for a permanent method, tubectomy was done before discharge from hospital. These patients were followed up after 1 month and at that time the willingness to continue the contraception and the details of contraceptive method opted

were noted. If the participant did not come for follow-up, a telephonic conversation was done after 1 month and all the details were collected. All the data collected were entered in Microsoft Excel Office 2016 and data analysis was done using the Statistical Package for the Social Sciences (SPSS) software (IBM SPSS Statistics for Windows, Version 20.0. Armonk, NY: IBM Corp; 2011). Data were expressed in the form of frequency and percentages. Chi square test was used to assess the relationship between variables.  $P < 0.05$  was considered to be statistically significant.

## 3. Results

A total of 468 women who came for abortion care during 24 months of study period were included in the study. The mean age of the study population was  $29.88 \pm 4.52$  years and most women were in the age group of 21 to 30 years (N=294, 62.82%). 202 participants belonged to lower socioeconomic status (43.16%), which was similar to middle class (N=200, 42.74%) and the remaining were seen in upper socioeconomic status (N=66, 14.10%). Most of the participants had studied up to secondary school (41.02%) and higher whereas only 18(3.84%) studied up to primary education. Larger proportion of the participants were unemployed or housewife (78.62%). The frequency and distribution of socio-demographic characteristics of the study population is shown in Table 1.

**Table 1:** Distribution of Socio demographic characteristics of the study participants

Characteristics	Number of patients (n=468)	Percentage (%)
<b>Age in Years</b>		
≤ 20	18	3.84
21-30	294	62.82
31-39	126	26.92
>39	30	6.41
<b>Socioeconomic status</b>		
Lower class	202	43.16
Middle class	200	42.74
Upper class	66	14.10
<b>Educational status</b>		
Primary school	18	3.84
Secondary school	192	41.02
Pre University/Diploma	132	28.20
Graduates	126	26.92
<b>Occupation</b>		
Unemployed/Housewife	292	78.62
Skilled worker	60	12.82
Clerk	54	11.53
Professional	62	13.24

Majority of the participants (91.07%) were multigravida, of which 216 (46.15%) were either 3<sup>rd</sup> or 4<sup>th</sup> gravida followed by 198 patients who were second gravida. Only

8.97% were primigravida. 228 participants in this study had one living child whereas 198 who had 2 or 3 living children. Majority of participants (n=384, 82.10%) came for the abortion for the first time and had no history of prior abortion. Only 17.9% of them came for repeat MTP after having a history of one or more abortion in the past. The gestational age of present pregnancy at the time of presentation for abortion care was less than 12 weeks in 398 (85.04%) participants. History of previous contraception usage was seen in 222(47.44%) of the participants. Distribution of study population based on obstetric history and previous contraceptive usages are shown in Table 2.

**Table 2:** Distribution of study population based on obstetric history and previous contraceptive usage

Characteristics	Number of patients	Percentage(%)
<b>Gravida status</b>		
1	42	8.97
2	198	42.30
3-4	216	46.15
5-6	12	2.56
<b>Number of living Children</b>		
0	42	8.97
1	228	48.71
2-3	198	42.30
<b>Previous history of abortion</b>		
0	384	82.05
1	60	12.80
2	24	5.10
<b>Gestational age of present pregnancy</b>		
<12 weeks	398	85.04
≥12 weeks	70	14.96
<b>History of the previous usage of contraception</b>		
Yes	222	47.44
No	246	52.56

In this study, about two-thirds of them (n=342, 73.08%) opted for one or the other contraceptive method following abortion before discharge from the hospital. 114 (24.35%) opted for permanent method and underwent tubectomy. The remaining 228 opted for temporary method of contraception, where barrier contraception was chosen by 96(20.51%), 19.23% opted for Intrauterine contraceptive device (IUCD) and the rest (8.97%) opted for oral contraceptive pills (OCPs) as shown in Chart 1. A total 126(26.92%) women did not accept any type of contraception. During the follow-up after 1 month, 24(5.1%) of women opted for a change of contraceptive method and 28(5.98%) discontinued contraception which was opted post-abortion due to non-compliance. Among

the ones who had not accepted any contraception post-abortion, 4(0.008%) women were willing for tubectomy and 6(0.012%) chose to use Oral Contraceptive pills and the rest were still not willing to use any mode of contraception lost to follow-up. This study showed a statistically significant association of post-abortion contraception with age(p=0.0003), education status(p=0.0000465) and history of previous contraceptive usage (p=0.0002), whereas association of post-abortive contraception acceptance with socio-economic status, employment status and gestational age of the present pregnancy was not statistically significant (p>0.05). The association between the socio-demographic features and post-abortion contraception is as shown in Table 3.

At the end of one month follow-up, 144 (30.76%) women were not willing to use contraception including the ones who discontinued the contraception (5.98%) due to inconvenience which was given in post-abortive period. The factors associated with the non-acceptance were religious beliefs (5.12%), fear of contraceptive methods(6.40%), husband staying abroad (5.12%), health issues (2.31%), willingness for a male child(3.20%) and wants a permanent method of contraception after few years(4.91%).(Table 4).

#### 4. Discussion

This hospital-based observational study was conducted to assess the utilization of post-abortion family planning acceptance and its associated factors in women who receive the abortion care services. In the present study, the majority of the study participants were in the age group of 21 and 30 years (62.82%) which was comparable to the study done by Abate et al., where the majority were in the age group of 20-29 years (59.5%).<sup>11</sup> In the present study 66.66% were homemakers and the remaining 33.34% were employed and this was comparable to the study done by Abebe et al. where 61.9% were unemployed and 38.1% women were employed.<sup>9</sup>

In the present study, the majority of them (82.05%) had no history of previous abortion which was similar to the study done by Abebe et al. (92.4%) whereas, in the present study, only a few (8.97%) of them had not given birth to a child before which was differing from the study by Abebe et al. where 37.3% of them had not given the history of giving birth.<sup>9</sup> This difference could be due to the difference in the region of study and also the inclusion criteria of the present study where only married women were included. In the present study, the magnitude of acceptance of post-abortion contraception was 73.08%. This was comparable to the findings of similar studies done by Khurram et al. in 2012 Pakistan which was 72.9%<sup>12</sup> and 84% in the study by Abebe et al.<sup>9</sup> But the acceptance of post-abortion contraception was comparatively lower than in the study done in Brazil by Ferreira AL et al., which was 97.4%.<sup>13</sup> This difference of findings across various studies might be

**Table 3:** Association between the demographic characteristics and post abortion contraception acceptance

Variables	Post-abortion contraception		P-value
	Accepted –(342) No (%)	Not accepted (126) No (%)	
<b>Age in years</b>			
≤20	6 (1.28)	12(2.56)	0.0003
21-30	222(47.44)	72(15.38)	
31-39	96(20.51)	30(6.41)	
>39	18(3.85)	12(2.56)	
<b>SES</b>			
Lower Class	142(30.34)	60(12.82)	0.0984
Middles class	156(33.33)	44(9.40)	
Upper Class	44(9.40)	22(4.70)	
<b>Education</b>			
Primary	12(2.56)	6(1.28)	0.0000465
High school	120(25.64)	72(15.38)	
Intermediate/PUC	102(21.79)	30(6.41)	
Graduate	108(23.08)	18(3.85)	
<b>Occupation</b>			
Unemployed/Homemaker	206(44.02)	86(18.38)	0.1121
Employed	136(29.06)	40(8.55)	
<b>History of previous contraceptive usage</b>			
Yes	180(38.46)	42(8.97)	0.0002
No	162(34.62)	84(17.95)	
<b>Gestational age of present pregnancy</b>			
<12 weeks	296(63.25)	102(21.79)	0.132
≥12weeks	46(9.83)	24(5.13)	

**Table 4:** The factors for non acceptance of post abortion contraception in this study

Reasons for Non-acceptance of contraception after 1 month follow-up	Number of patients	Percentage
Religious belief	24	5.12%
Fear of contraceptive method	30	6.40%
Husband staying abroad	24	5.12%
Willingness for male child	15	3.20%
Wants permanent method of contraception after few years	23	4.91%

due to the cultural variations and differences in the socio-economic environments.

In this study, we found that women who were housewives were less likely to utilize PAFP services, though it had no statistically significant association, and these findings were similar to the prior studies done by Kokeb el al<sup>14</sup> and Seid A et al.,<sup>15</sup> whereas study done by Abate et al<sup>11</sup> showed a significant association with the occupation where housewives were less likely to utilize post-abortion family planning (PAFP) services. This study found a strong positive association between post-abortion contraception acceptance and age where women aged between 21 and 30 years are more likely to accept the contraceptive methods whereas a study by Abebe et al. showed women between 15-24years were more likely to use contraception than the other age group participants.<sup>9</sup>

There was no significant association between the gestational age of present pregnancy and these results were

similar to studies by Seid A et al. and Prata N et al. whereas the study by Abate et al. found that those with gestational age less than 12 weeks were more likely to accept the PAFP services than those between 3 to 7 months of gestational age.<sup>11,15,16</sup> Women with a previous history of contraceptive usage, had high acceptance of PAFP services than those who have not used before, which were similar to study done by Abebe et al.<sup>9</sup> This positive association in this study might be due to the fact that women who have used contraceptives before will have better knowledge about contraception and facilitate them to choose appropriate family planning methods.

## 5. Limitations of the Study

This study was done in a single referral institute where the generalization could be compromised.

## 6. Conclusion

The proportion of post-abortion family planning utilization is good but could be improved. Family planning counseling during the time of abortion plays an important role in accepting post abortion contraception services. Education before and especially at the time of abortion services strongly influence the usage of family planning services especially in the rural areas where the accessibility is comparatively low. Previous usage of contraception, age of presentation and education status also showed a positive association with post-abortion family planning utilization. So, we recommend that health care providers at each and every level of health care should provide family planning counseling and services to those who come for abortion to reduce maternal morbidity and mortality.

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None.

## 8. Conflict of Interest

None.

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