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Correlates of contraceptive use 4 months postabortion: findings from a prospective study in Bangladesh

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Abstract

Objectives: Using the social determinants framework as a guide, this study sought to understand correlates of postabortion contraceptive use at the individual, family and abortion service delivery levels.
Study design: This prospective study assessed correlates of contraceptive use 4 months postabortion and timing of initiation using a facility-based sample of 398 abortion clients who selected pills, condoms, injectables or no method immediately following the procedure. We measured potential correlates immediately following abortion, inclusive of spontaneous or induced abortion, and assessed contraceptive use outcomes 4 months postabortion. Multivariable logistic regression models identified correlates at each level. Potential individual level correlates included contraceptive and abortion history and fertility intentions; family correlates included intimate partner violence (IPV), discordance in fertility intentions and household decision-making; and service delivery correlates included procedure type and postabortion contraceptive counseling.
Results: Reported contraceptive use 4 months postabortion was high (85.4%). Contraceptive use at the index pregnancy (resulting in abortion) was the primary correlate of contraceptive use 4 months postabortion (adjusted odds ratio=2.9; 95% confidence interval: 1.5–5.9). Delayed contraceptive initiation was more common among women who reported past year IPV (36.8% vs. 19.5%; p=.03) particularly with spousal accompaniment for abortion, those in relationships with discordant fertility intentions (44.4% vs. 21.9%; p=.04) and those receiving medication abortion (56.7%) or dilation and curettage (57.1%), compared to manual vacuum aspiration (12.6%; p<.01).
Conclusions: Contraceptive use at the index pregnancy was the primary correlate of contraceptive use 4 months postabortion. Abortion procedure type and relationship dynamics were correlated with delayed postabortion contraceptive initiation. Women who reported IPV delayed initiation when accompanied by their spouse for abortion.
Implications: Postabortion contraceptive counseling should assess previous use patterns and provide information on using contraception effectively. Delayed initiation among women reporting IPV could be addressed through comprehensive, confidential counseling that includes violence screening, support for contraceptive initiation and offer of woman-controlled methods.

Keywords: Postabortion contraception; Bangladesh; Intimate partner violence; Abortion

1. Introduction

Fertility can return within 2 weeks of an abortion procedure, and the World Health Organization (WHO) recommends immediate contraceptive provision, on the day of the procedure, to reduce subsequent unwanted pregnancy [1]. However, contraceptive behavior is complex, and provision of contraception may not result in effective contraceptive use, as individual characteristics and an individual's social environment influence behavior [2]. In Bangladesh, induced abortion is legally restricted, but menstrual regulation (MR) is a procedure permitted to establish nonpregnancy up to 10 weeks from the last menstrual period [3]. Both postabortion care (PAC) services

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for incomplete abortion and MR services are widely available in Bangladesh at all levels of the government health system [4]. These services are offered free of charge by government policy, but quality is variable, and informal fees are often charged [4,5]. Postabortion contraceptive provision, inclusive of contraceptives provided immediately following MR or PAC procedures, varies considerably based on facility characteristics and method availability [4]. However, less is known about the contextual factors associated with postabortion contraceptive use in the months following abortion.

Social determinants frameworks identify social processes influencing reproductive behavior and inform intervention design to improve access, particularly for vulnerable groups [6]. Evidence from Bangladesh suggests multiple levels of influence on women's postabortion contraceptive use. At the individual level, intentions to limit childbearing [7] and contraceptive history [8,9] are associated with contraceptive continuation. At the family level, women's power within the family is important, especially in rural Bangladesh where husbands' disapproval and dissatisfaction are cited as reasons for contraceptive discontinuation [10]. Intimate partner violence (IPV) is considered highly relevant. Approximately 24% of women in Bangladesh report past year IPV [11], and IPV is associated with unwanted pregnancy and induced abortion in Bangladesh and elsewhere [12–14]. At the abortion service delivery level, high-quality postabortion contraceptive counseling [15] and availability of contraceptive methods and skilled providers [4] are correlated with use. Previous studies have assessed correlates separately, without simultaneously considering multiple levels of influence on women's postabortion contraceptive use.

Studies typically focus on postabortion contraceptive continuation, defining contraceptive initiation within a timeframe ranging from 1 to 3 months postabortion [16–18]. However, health system interventions focus on immediate contraceptive provision, in line with WHO recommendations [1]. In Bangladesh, pills, injectables and condoms, which can be initiated immediately following any abortion procedure [1], account for approximately 85% of the contraceptive method mix in the postabortion and general populations [19]. In this setting, it is more relevant to consider immediate as compared to delayed initiation to understand the determinants affecting implementation of WHO guidelines.

The present study assessed correlates of contraceptive use 4 months postabortion and timing of initiation (immediate or delayed) at the individual, family and abortion service delivery levels among public sector abortion clients in Bangladesh.

2. Material and methods

2.1. Sample

This prospective study used data from a parent study, which employed a stratified one-stage cluster sampling approach to select 498 women from 16 government and nongovernment organization (NGO) facilities receiving an intervention that trained providers in woman-centered abortion service provision. The parent study stratified facilities by type (primary, secondary, tertiary and NGO clinics) and randomly selected 16 using probability proportional to size sampling within facility-type strata. All facilities in the sample offered both MR services for women presenting with ongoing pregnancy and PAC services for women presenting with incomplete abortion. By policy, providers did not confirm pregnancy prior to an MR procedure [5], but this study considered MR to be equivalent to induced abortion. Providers most commonly used manual vacuum aspiration (MVA) for both MR and PAC cases. Dilation and curettage (D&C) is not a WHO-approved abortion procedure, but some senior obstetrician–gynecologists still routinely used the procedure. In addition, some second trimester PAC cases required D&C because facilities primarily procured small MVA cannulae for MR procedures, which could not be used for PAC clients presenting at later gestational ages. At the time of data collection, medication abortion (MA) was newly available, primarily in the larger health facilities. All facilities provided at least two contraceptive methods, typically oral contraceptive pills and injectables. Inclusion criteria for participants were 18–49 years of age and selected pills, injectables or condoms as a postabortion contraceptive method or selected no method. The parent study focused on women who selected pills, injectables or condoms because they were of particular interest to the Bangladeshi government as they made up the majority of postabortion contraceptive users and because methods such as intrauterine devices (IUDs), implants and sterilization were not available to abortion clients in most government health facilities due to inadequate training and supplies [4]. Thus, women who selected IUDs, implants or sterilization immediately following abortion (approximately 14% of abortion clients, most seen in specialized NGO-run abortion clinics) were ineligible for enrollment in the parent study. Women completed an interviewer-administered survey at the health facility after recovering from their abortion procedure and a follow-up survey 4 months later at a location of their choosing.

The present analysis included all abortion clients who did not wish to become pregnant again soon, including miscarriage clients, as we expected postabortion contraceptive behavior to reflect current pregnancy intentions rather than abortion treatment type. Therefore, we included in the analysis miscarriage clients who intended to delay or limit childbearing. We excluded women from the analysis if on the day of the procedure they intended pregnancy in the next 4 months or, if at the 4-month follow-up, they intended pregnancy in the next month. We also excluded women if they were pregnant at the 4-month follow-up, missing data on contraceptive use at the 4-month follow-up or lost to follow-up.

2.2. Measures

The primary outcome of interest was contraceptive use 4 months postabortion, which included use of pills, condoms, injectables, implants, IUDs or sterilization. Even though

women who selected IUDs, implants or sterilization immediately following abortion were ineligible for enrollment in the parent study, we included in the analysis women who initiated use of these methods over the 4-month follow-up period. We evaluated timing of postabortion contraceptive initiation (immediate or delayed), the secondary outcome of interest, among women who reported contraceptive use 4 months postabortion. Immediate postabortion contraceptive initiators selected a method (injectables, pills or condoms) at the health facility immediately following abortion, and delayed initiators did not select a method immediately following abortion, indicating contraceptive initiation after leaving the health facility.

This study assessed all potential correlates on the day of the abortion procedure. At the individual level, we considered history of MR, contraceptive use at the index pregnancy (resulting in abortion) and fertility intentions for the index pregnancy. Contraceptive use at the index pregnancy included women who reported pregnancy resulting from contraceptive failure or inconsistent use. To measure intentions, interviewers asked women, "Right before you became pregnant, did you want to become pregnant then, did you want to wait until later, did you not want to have any (more) children, or did you not think about it?" [20]. We assessed discordance in fertility intentions between the woman and her husband/partner based on work by Schoen et al. [21]. We ordered the husband/partner's intentions from highest to lowest desire for fertility and created three categories relative to the woman's intentions: concordant, discordant–higher (indicating the husband had higher desire for fertility) and discordant–lower (indicating the husband had lower desire for fertility). We excluded discordant–lower from analyses due to the small number (n= 7). We included three domains of women's power within the family: past year IPV, accompaniment to the health facility and women's involvement in household decision-making. Service delivery characteristics included abortion treatment and procedure type and postabortion contraceptive counseling. Interviewers asked women to report their abortion treatment type as MR, PAC for induced abortion or PAC for miscarriage.

2.3. Data analysis

We calculated the prevalence of the primary outcome, contraceptive use 4 months postabortion, for the sample and based on potential correlates in the three levels (individual, family and abortion service delivery). F-tests from simple logistic regression models assessed bivariate associations. We ran separate multivariable logistic regression models for each level, including potential correlates with bivariate significance at p<.05. Model 1 was the individual level model; Model 2 was the abortion service delivery level model; and Model 3 was a full model with potential correlates from both levels. All models adjusted for sociodemographic characteristics associated with the outcome (education, number of children and cohabitation with the husband/partner). We used a similar approach for the secondary outcome, timing of postabortion contraceptive initiation. We calculated the prevalence for the sample and by potential correlates in each level and assessed bivariate differences using an F-test. We conducted post hoc analysis of past year IPV experience by timing of initiation and stratified by accompaniment to the health facility to clarify whether the association varied by spousal accompaniment. Approximately 8% of observations were missing for past year IPV, and we generated 10 imputations with multivariate imputation using chained equations [22]. We analyzed the multiple imputation dataset using Stata/SE 14.0, accounting for the complex survey design.

2.4. Ethical review

Study procedures received ethical approval from the Bangladesh Medical Research Council in Dhaka and the Allendale Investigational Review Board in the United States.

3. Results

Interviewers approached a total of 555 women for participation in the parent study, enrolled 498 women (response rate: 498/555, 90%) and retained 457 women at the 4-month follow-up (follow-up rate: 457/498, 92%). The analytic sample for this study included 398 women who completed the follow-up survey and did not intend pregnancy soon (Fig. 1). Loss to follow-up was nondifferential by all sociodemographic characteristics except parity; loss to follow-up was more common among nulliparous women (16%), compared to parous women (6%; p<.01).

On average, women in the sample were 28 years old, more than half (56.0%) had secondary or higher education and 86.9% had at least one child (Table 1). At the 4-month follow-up 85.4% of women reported contraceptive use. Contraceptive use 4 months postabortion was associated with having at least one child (88.9% among women with 1–2 children and 83.8% among women with 3 or more children vs. 73.1% among women with no children; p<.01) and cohabitating with the husband/partner (86.7% vs. 67.0%; p=.01).

Bivariate analysis demonstrated that contraceptive use 4 months postabortion was associated with individual and abortion service delivery characteristics but not family characteristics (Table 2). Ninety-two percent of women who reported contraceptive use at the index pregnancy reported contraceptive use 4 months postabortion, compared to only 76.9% of those who did not report use at the index pregnancy (p<.01). Eighty-eight percent of women who said that the pregnancy was mistimed or unwanted reported contraceptive use 4 months postabortion, compared to 76.3% who said the pregnancy was wanted then or they were ambivalent about the timing (p<.01). Abortion treatment type was also associated; 90.6% of women who received

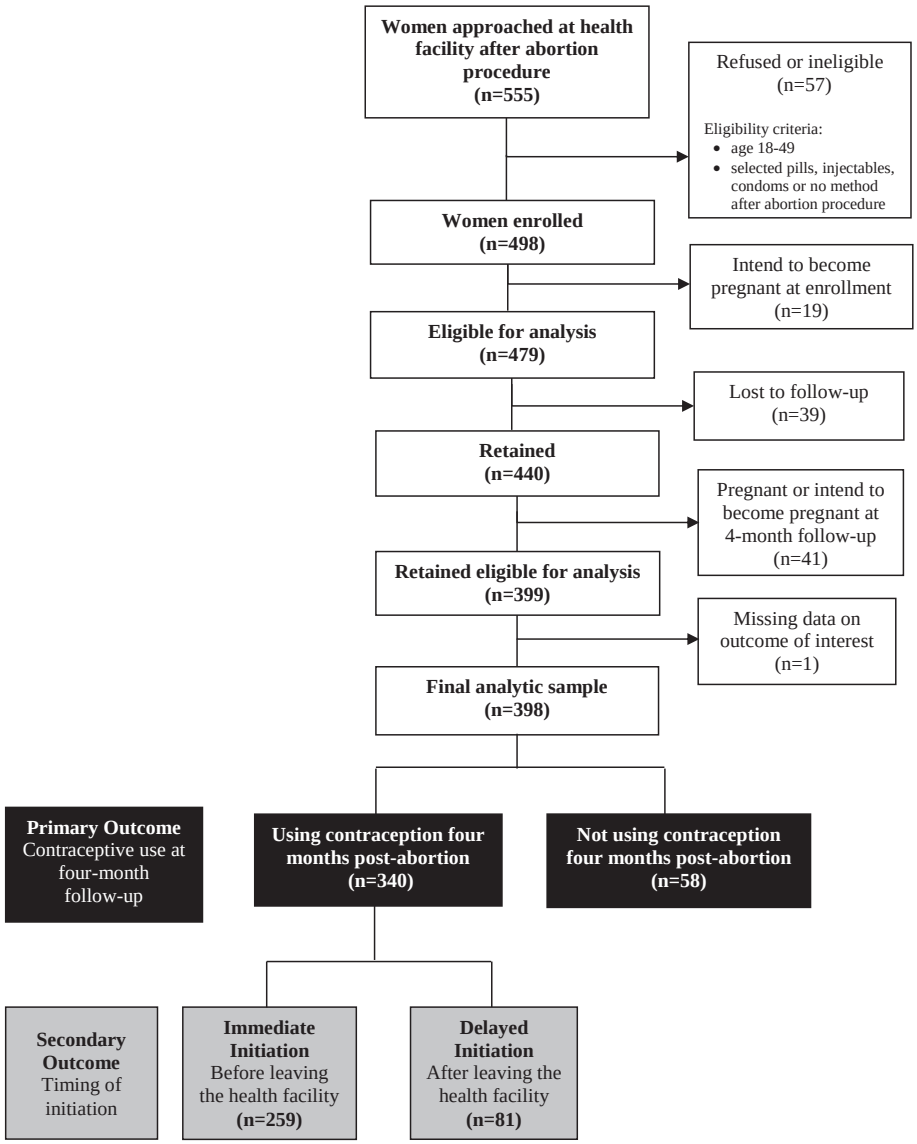

Fig. 1. Study eligibility and outcomes of interest.

PAC services for induced abortion reported contraceptive use 4 months postabortion, compared to 87.3% of MR clients and 76.4% of PAC for miscarriage clients (p=.03).

In multivariable analyses (Table 3), Model 1 demonstrated that women who reported contraceptive use at the index pregnancy had three times higher odds of reported contraceptive use 4 months postabortion, compared to women who did not report contraceptive use at the index pregnancy (95% confidence interval (CI): 1.5–6.1). Model 2 showed that abortion service delivery characteristics were not associated with contraceptive use 4 months postabortion after adjusting for sociodemographic characteristics. The full model (Model 3) demonstrated that after adjusting for all correlates with bivariate associations with the outcome, only contraceptive use at the index pregnancy was correlated with contraceptive use 4 months postabortion (adjusted odds ratio (AOR)=2.9; 95% CI: 1.5–5.9).

Timing of postabortion contraceptive initiation was associated with characteristics at the family and abortion service delivery levels (Table 4). At the family level, 44.4% of women whose husband/partner had a higher desire for fertility delayed initiation, compared to only 21.9% of women who reported intentions concordant with their husband/partner's (p=.04). Delayed initiation was also associated with reported past year IPV; 36.8% of women who reported IPV delayed initiation, compared to 19.5% of women who did not report past year IPV (p=.03). At the abortion service delivery level, 56.7% of MA clients and 57.1% of D&C clients delayed initiation, compared to only 12.6% of MVA clients (p<.01).

Table 1
Sociodemographic characteristics of study sample by contraceptive use 4 months postabortion (*n*=398)

	Total (*n* = 398)		Not using (*n*=58)	Using (*n*=340)	
	n	(%)	(%)	(%)	p-value
Contraceptive use 4 months postabortion	398	(100)	(14.6)	(85.4)	
Sociodemographic characteristics					
Age [mean (SE)]	27.8	(0.4)	27.7	27.8	0.97
Husband/Partner's age [mean (SE)]	35.3	(0.6)	35.6	35.3	0.77
Education					0.50
None	55	(13.8)	(21.8)	(78.2)	
Primary	120	(30.2)	(15.0)	(85.0)	
Secondary or higher	223	(56.0)	(12.6)	(87.4)	
Husband/Partner's education					0.75
None	64	(16.1)	(18.8)	(81.2)	
Primary	116	(29.1)	(13.8)	(86.2)	
Secondary or higher	218	(54.8)	(13.8)	(86.2)	
Religion					0.44
Islam	356	(89.4)	(15.2)	(84.8)	
Hinduism	41	(10.3)	(9.8)	(90.2)	
Buddhism	1	(0.3)	(0)	(100)	
Marital status					–
Married	397	(99.7)	(14.6)	(85.4)	
Formerly married	1	(0.3)	(0)	(100)	
Number of children					<0.01
No children	52	(13.1)	(26.9)	(73.1)	
1–2 children	235	(59.0)	(11.1)	(88.9)	
3 or more children	111	(27.9)	(16.2)	(83.8)	
Household structure					0.08
Nuclear	223	(56.0)	(12.6)	(87.4)	
Extended	175	(44.0)	(17.1)	(82.9)	
Cohabitation with husband/partner					0.01
Cohabitating	369	(92.7)	(13.3)	(86.7)	
Not cohabitating	29	(7.3)	(31.0)	(69.0)	
Residence					0.26
Urban	225	(56.5)	(12.9)	(87.1)	
Rural	173	(43.5)	(16.8)	(83.2)	
Rural to urban migrant					0.69
Yes	94	(23.6)	(13.8)	(86.2)	
No	304	(76.4)	(14.8)	(85.2)	
Division					0.66
Dhaka	190	(47.7)	(12.6)	(87.4)	
Sylhet	93	(23.4)	(14.0)	(86.0)	
Chittagong	50	(12.6)	(24.0)	(76.0)	
Rajshahi	65	(16.3)	(13.8)	(86.2)	

Note: Original *n*, imputed percent and F-test p-value presented.

We analyzed the interaction between reported past year IPV experience and spousal accompaniment on timing of initiation to explore a possible explanation for delayed initiation. Among women whose husband/partner accompanied them for the abortion procedure, 49.6% of women who reported past year IPV delayed initiation, compared to 19.6% of women who did not report IPV (p=.03) (Table 5). We did not observe significant differences among women who attended the facility alone or were accompanied by someone other than their husband/partner.

4. Discussion

In this prospective study of abortion clients, reported contraceptive use 4 months postabortion was prevalent (85.4%), and contraceptive use at the index pregnancy was the primary correlate. Our analysis of timing of postabortion contraceptive initiation extended past analyses that used a 1- to 3-month initiation window and identified correlates of delayed compared to immediate initiation. Delayed contraceptive initiation was more common among women who received MA or D&C, women who reported discordant pregnancy intentions and women who reported past year IPV, particularly with spousal accompaniment for the abortion procedure. Though these women were equally likely to report contraceptive use 4 months postabortion, findings highlight ways health system interventions can prevent delays in postabortion contraceptive initiation.

The primary correlate of contraceptive use 4 months postabortion was contraceptive use at the index pregnancy.

Table 2
Bivariate associations between potential individual, family and abortion service delivery correlates and contraceptive use 4 months postabortion (n = 398)

	Total (n = 398)		Not using (n = 58)	Using (n = 340)	
	n	(%)	(%)	(%)	p-value
Contraceptive use at 4 months postabortion	398	(100)	(14.6)	(85.4)	
Potential correlates					
Individual characteristics					
History of MR					0.06
No history of MR	284	(71.4)	(15.8)	(84.2)	
Previous MR experience	114	(28.6)	(11.4)	(88.6)	
Contraceptive use at index pregnancy					<0.01
Not using contraception	173	(43.5)	(23.1)	(76.9)	
Using contraception	225	(56.5)	(8.0)	(92.0)	
Intentions at index pregnancy					<0.01
Wanted then or ambivalent	93	(23.4)	(23.7)	(76.3)	
Mistimed or unwanted	305	(76.6)	(11.8)	(88.2)	
Family characteristics					
Husband/Partner's relative intentions [a]					0.80
Concordant	360	(92.1)	(15.0)	(85.0)	
Discordant–Higher	31	(7.9)	(12.9)	(87.1)	
Physical or sexual IPV in past year [b]					0.75
Did not experience IPV	268	(74.7)	(14.3)	(85.7)	
Experienced IPV	95	(25.3)	(15.5)	(84.5)	
Accompaniment to health facility for abortion					0.95
None/Alone	42	(10.5)	(14.3)	(85.7)	
Husband accompanied	206	(51.8)	(15.0)	(85.0)	
Someone else accompanied	150	(37.7)	(14.0)	(86.0)	
Decision-making for contraceptive use					0.14
Not involved	25	(6.3)	(24.0)	(76.0)	
Involved	373	(93.7)	(13.9)	(86.1)	
Decision-making for her healthcare					0.70
Not involved	63	(15.8)	(12.7)	(87.3)	
Involved	335	(84.2)	(14.9)	(85.1)	
Abortion service delivery characteristics					
Type of treatment received					0.03
PAC for miscarriage	89	(22.4)	(23.6)	(76.4)	
MR	245	(61.5)	(12.7)	(87.3)	
PAC for induced abortion	64	(16.1)	(9.4)	(90.6)	
Abortion procedure type					0.33
MVA	294	(73.9)	(13.6)	(86.4)	
MA	33	(8.3)	(9.1)	(90.9)	
D&C	71	(17.8)	(21.1)	(78.9)	
Time spent in postabortion contraceptive counseling					0.70
None	95	(23.9)	(18.9)	(81.1)	
Less than 5 min	113	(28.4)	(12.4)	(87.6)	
5 min or longer	190	(47.7)	(13.7)	(86.3)	
Immediate initiation of postabortion contraception					0.11
No	102	(25.6)	(20.6)	(79.4)	
Yes	296	(74.4)	(12.5)	(87.5)	

[a] One category of husband/partner's relative intentions, discordant–lower (n = 7), was excluded from the analysis due to the small sample size.
[b] Multiple imputation variable (original $n \neq 398$). Original n and imputed percent presented.

Findings echo results from other settings demonstrating that contraceptive history predicts postabortion contraceptive use [23]. In Bangladesh some pill users believe it necessary to take "short breaks" for health reasons [10], and postabortion contraceptive counseling provides an opportunity to assess previous contraceptive use patterns and provide accurate information on using contraception effectively.

Timing of postabortion contraceptive initiation varied by family and abortion service delivery characteristics. At the abortion service delivery level, MA and D&C clients delayed initiation compared to MVA clients, suggesting providers differentially offered postabortion contraception based on procedure type. In practice, providers often ask MA and D&C clients to return for a follow-up visit to ensure that the

Table 3
Logistic regression results of association between contraceptive use 4 months postabortion and potential correlates (n = 398)

	Model 1: individual characteristics		Model 2: abortion service delivery characteristics		Model 3: full model	
Potential correlates	AOR	(95% CI)	AOR	(95% CI)	AOR	(95% CI)
Individual characteristics						
Contraceptive use at index pregnancy						
Not using contraception (ref)	1.0				1.0	
Using contraception	3.0*	(1.5–6.1)			2.9*	(1.5–5.9)
Intentions at index pregnancy						
Wanted then or ambivalent (ref)	1.0				1.0	
Mistimed or unwanted	1.6	(0.9–2.6)			1.5	(0.8–2.8)
Abortion service delivery characteristics						
Type of treatment received						
PAC for miscarriage (ref)			1.0		1.0	
MR			1.7	(0.9–3.1)	1.2	(0.6–2.3)
PAC for induced abortion			2.6	(0.9–7.7)	2.0	(0.5–7.6)

Logistic regression models adjust for education, number of children, cohabitation with husband/partner and all variables listed in column.
* $p < 0.05$.

abortion is complete and that there are no complications. Providers may prefer to provide postabortion contraception during follow-up visits, but women may miss the opportunity for contraceptive initiation before fertility returns.

This study identified discordant fertility intentions and past year IPV as correlates of delayed initiation, particularly with spousal accompaniment for abortion. Though there were no differences in contraceptive use 4 months postabortion, the timing of initiation differed. This suggests that women reporting IPV are equally able to use contraception by 4 months postabortion but are less likely to initiate postabortion contraception on the day of the procedure. Delayed initiation among women reporting IPV is particularly concerning as studies from a variety of settings demonstrate less power within relationships to negotiate contraceptive use [24,25] and restricted mobility [26], which could result in delays beyond the 2-week period of natural protection from pregnancy after an abortion procedure. This study identified spousal accompaniment as a potential explanation for delayed initiation among women reporting past year IPV. While husband/partner accompaniment to abortion services is seen as positive and supportive for some women in the South Asian context [27], it may be experienced as controlling or coercive when violence is present. Abortion service providers should be trained to provide confidential counseling in a private place within the health facility to screen for violence [28] and identify women's reproductive goals in comparison to her husband/partner's [29]. Women reporting IPV may have a greater need for woman-controlled methods such as injectables that can be used covertly [30], and postabortion contraceptive counseling provides an opportunity for providers to assess women's needs, match postabortion contraceptive recommendations to these needs and provide information on available support services [29].

4.1. Limitations

The primary limitations of this study were the small sample size and short follow-up period. Similar studies have used 6-month or 1-year follow-up periods, which provide greater power to assess outcomes such as subsequent pregnancy [16,17]. Despite the small sample size, a major strength of this study was the low rate of loss to follow-up. Loss to follow-up was nondifferential by most sociodemographic characteristics, but we note potential for selection bias in that nulliparous women were more likely to be lost to follow-up. Contraceptive use 4 months postabortion was likely lowest among nulliparous women, and differential loss could overestimate contraceptive use 4 months postabortion. We relied on self-reported contraceptive use, which is subject to social desirability bias. Calendar data on contraceptive use over the follow-up period would provide more nuanced information on timing of postabortion contraceptive initiation, including whether women used the contraceptive method selected immediately following abortion. We also lacked data on pregnancy risk after abortion, such as sexual activity and resumption of menses. The parent study focused on government and NGO facilities receiving an intervention to improve abortion services; the extent to which findings generalize to other settings, women under age 18 and women who selected long-acting or permanent methods immediately following abortion is unclear.

4.2. Conclusions

Contraceptive use at the index pregnancy was the primary correlate of postabortion contraceptive use 4 months

Table 4
Bivariate associations between potential individual, family and abortion service delivery correlates and timing of postabortion contraceptive initiation (n = 340)

	Total (n = 340)		Immediate initiation (n = 259)	Delayed initiation (n = 81)	
	n	(%)	(%)	(%)	p-value
Timing of initiation	340	(100)	(76.2)	(23.8)	
Potential correlates					
Individual characteristics					
History of MR					0.35
No history of MR	239	(70.3)	(77.8)	(22.2)	
Previous MR experience	101	(29.7)	(72.3)	(27.7)	
Contraceptive use at index pregnancy					0.81
Not using contraception	133	(39.1)	(75.2)	(24.8)	
Using contraception	207	(60.9)	(76.8)	(23.2)	
Woman's intentions at index pregnancy					0.18
Wanted then or ambivalent	71	(20.9)	(64.8)	(35.2)	
Mistimed or unwanted	269	(79.1)	(79.2)	(20.8)	
Family characteristics					
Husband/Partner's relative intentions [a]					0.04
Concordant	306	(91.9)	(78.1)	(21.9)	
Discordant–Higher	27	(8.1)	(55.6)	(44.4)	
Physical or sexual IPV in past year [b]					0.03
Did not experience IPV	228	(75.0)	(80.5)	(19.5)	
Experienced IPV	80	(25.0)	(63.2)	(36.8)	
Accompaniment to health facility for abortion					0.77
None/Alone	36	(10.6)	(83.3)	(16.7)	
Husband accompanied	175	(51.5)	(74.3)	(25.7)	
Someone else accompanied	129	(37.9)	(76.7)	(23.3)	
Decision-making for contraceptive use					0.27
Not involved	19	(5.6)	(89.5)	(10.5)	
Involved	321	(94.4)	(75.4)	(24.6)	
Decision-making for her healthcare					0.22
Not involved	55	(16.2)	(89.1)	(10.9)	
Involved	285	(83.8)	(73.7)	(26.3)	
Abortion service delivery characteristics					
Type of treatment received					0.30
PAC for miscarriage	68	(20.0)	(60.3)	(39.7)	
MR	214	(62.9)	(86.0)	(14.0)	
PAC for abortion	58	(17.1)	(58.6)	(41.4)	
Abortion procedure type					<0.01
MVA	254	(74.7)	(87.4)	(12.6)	
MA	30	(8.8)	(43.3)	(56.7)	
D&C	56	(16.5)	(42.9)	(57.1)	

[a] One category of husband/partner's relative intentions, discordant–lower (n = 7), was excluded from the analysis due to the small sample size.
[b] Multiple imputation variable (original $n \neq 340$). Original n and imputed percent presented.

postabortion. Postabortion contraceptive counseling should assess contraceptive failure and inconsistent contraceptive use and empower women with accurate information to use contraception effectively. This study also found that women "catch up" in terms of contraceptive use over the 4 months following abortion, but delayed initiation may indicate a need for postabortion contraception not met immediately following abortion, potentially putting women at risk of unwanted pregnancy. This gap in contraceptive coverage is particularly concerning for women reporting IPV, who were more likely to delay initiation, especially if accompanied by a husband/partner for abortion. Interventions should improve confidential counseling to screen for violence and appropriately match postabortion contraceptive provision with women's needs.

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Table 5
Timing of postabortion contraceptive initiation by past year IPV, stratified by accompaniment to the health facility for the abortion procedure (n = 340)

	Total (n=340)		Immediate initiation (n=259)		Delayed initiation (n = 81)		
	n	(%)	n	(%)	n	(%)	p-value
Attended facility alone	36	(10.6)					
Physical or sexual IPV in past year [a]							0.44
Did not experience IPV	20	(83.3)	17	(86.7)	3	(13.3)	
Experienced IPV	13	(16.7)	10	(77.7)	3	(22.3)	
Husband accompanied	175	(51.5)					
Physical or sexual IPV in past year [a]							0.03
Did not experience IPV	122	(74.3)	98	(80.4)	24	(19.6)	
Experienced IPV	34	(25.7)	17	(50.4)	17	(49.6)	
Someone else accompanied	129	(37.9)					
Physical or sexual IPV in past year [a]							0.34
Did not experience IPV	86	(76.7)	68	(79.2)	18	(20.8)	
Experienced IPV	33	(23.3)	23	(70.5)	10	(29.5)	

[a] Multiple imputation variable (original $n \neq 340$). Original n and imputed percent presented.

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