Service Delivery Correlates of Choosing Short-Acting Contraceptives at the Time of Uterine Evacuation in Bangladesh

Author(s): Erin Pearson, Kamal Kanti Biswas, Rezwana Chowdhury, Kathryn L. Andersen, Sharmin Sultana, S.M. Shahidullah, Caroline Moreau and Michele R. Decker

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CONTEXT: *The World Health Organization recommends that contraceptives be offered on the day of a uterine evacuation procedure (i.e., induced abortion or postabortion care for an incomplete abortion). Short-acting methods can be initiated on the day of the uterine evacuation, regardless of procedure type.*

METHODS: *Survey data from a facility-based sample of 479 Bangladeshi women aged 18–49 who did not intend to become pregnant in the four months following their uterine evacuation were used to examine women's choice of short-acting contraceptive methods (pill, condoms or injectable). Service delivery correlates of contraceptive choice were identified using sequential logistic regression models.*

RESULTS: *Seventy-three percent of women chose a short-acting contraceptive method on the day of their uterine evacuation. The odds that a woman chose a short-acting method, rather than no method, were lower among those who had had a medication abortion (odds ratio, 0.1) or dilatation and curettage (0.3) than among those who had had a vacuum aspiration. The likelihood that a woman chose a specific type of short-acting method varied according to the type of uterine evacuation she had had, the facility level and the governmental or nongovernmental entity that managed the facility.*

CONCLUSIONS: *Uterine evacuation service delivery characteristics may act as barriers to women's choosing a contraceptive method following an abortion. Training and monitoring providers may help ensure that all uterine evacuation clients have access to the full range of contraceptive information and services and that their choices, rather than service delivery factors, drive postabortion contraceptive use.*

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Erin Pearson, Kamal Kanti Biswas, Rezwana Chowdhury, Kathryn L. Andersen, Sharmin Sultana, S.M. Shahidullah, Caroline Moreau and Michele R. Decker

Erin Pearson is research associate, Harvard T.H. Chan School of Public Health, Boston, MA, USA. Kamal Kanti Biswas is senior advisor, and Rezwana Chowdhury is advisor, Research and Evaluation; Sharmin Sultana is senior advisor, Health Systems; and S.M. Shahidullah is country director, Bangladesh–all at Ipas Bangladesh, Dhaka. Kathryn L. Andersen is senior director, Technical Innovation and Excellence, Ipas, Chapel Hill, NC, USA. Caroline Moreau and Michele R. Decker are associate professors, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, USA.

Unwanted pregnancy is a significant contributor to maternal death and disability globally. According to one estimate, as many as 70% of maternal deaths could be averted if unmet need for contraception were fully satisfied.[1] In addition, use of effective family planning methods could avert 90% of morbidity and mortality resulting from termination of unwanted pregnancies.[2]

Because women can become pregnant as soon as 10 days after having an abortion,[3] World Health Organization (WHO) guidelines recommend that all women who undergo uterine evacuation* be offered contraceptive counseling and, if they desire, a family planning method before leaving the health facility.[4] All family planning methods can be initiated immediately following a first-trimester surgical abortion, including procedures done using manual or electric vacuum aspiration. Women can initiate use of a hormonal method after taking the first pill in a medication abortion regimen, but sterilization or insertion of an IUD should be delayed until completion of the abortion has been confirmed. All short-acting methods (condoms, pill and injectable) can be initiated on the day of the uterine evacuation, regardless of procedure type.

Understanding determinants of postabortion contraceptive use is particularly important in Bangladesh, where the abortion rate (37 per 1,000 women aged 15–44) is substantially higher than the rate in South Asia as a whole (26 per 1,000).[5,6] Although the law in Bangladesh prohibits abortion except to save the life of a woman, since 1979 menstrual regulation—the evacuation of the uterus of a woman at risk of being pregnant to induce menstruation and thus establish nonpregnancy—has been allowed until 10 weeks from the beginning of the woman's last menstrual period.† In addition, women who experience incomplete spontaneous or induced abortion can obtain postabortion care. Despite the availability of uterine evacuation services, unsafe abortion still occurs in Bangladesh because of economic, cultural and informational barriers that limit women's access to safe services, as well as because of gaps in quality of care.[7,8] Although provision of uterine evacuation is evenly distributed between public facilities and private and nongovernment facilities,[9,10] a national survey of uterine evacuation service delivery sites in

*In this article, we use the term "uterine evacuation" to refer to both induced abortion and postabortion care procedures (i.e., treatment of incomplete induced or spontaneous abortion).

†Although menstrual regulation is performed without confirming pregnancy and can be used to address menstrual disturbances unrelated to pregnancy, in this article we will consider it to be equivalent to induced abortion.

Bangladesh found that the likelihood that women were offered contraceptives following abortion varied by sector and by type of treatment received.[10] Among government facilities, almost all of those that provided menstrual regulation offered postabortion contraceptives to women who received this service; however, among those that provided postabortion care, contraceptive provision varied by facility level—83% of primary-level facilities offered contraceptives to women receiving postabortion care, compared with only 40% of secondary- and tertiary-level facilities.[10] In the private sector, 78% of facilities that provided menstrual regulation and 87% of those that provided postabortion care did not offer contraceptives following an abortion.[10] These findings indicate that provision of postabortion contraceptives in Bangladesh has been poor; improving this situation requires an understanding of the specific service delivery barriers to women's obtaining contraceptives after they have a menstrual regulation procedure or receive postabortion care.

The relationship between service delivery characteristics and women's selection of a contraceptive method after an abortion has not been studied in Bangladesh, but it has been explored in research in other developing countries. A study in India found that compared with women who had undergone manual vacuum aspiration, those who had had a medication abortion delayed initiation of postabortion contraception and were much less likely to adopt a contraceptive method within a month of the abortion.[11] Facility or clinical unit type can also be associated with postabortion contraceptive initiation. In some settings, uterine evacuation and contraceptive services are not provided within the same facility or unit, or by the same providers, requiring women who have an abortion to go elsewhere for contraceptives.[12]

Bangladesh has a bifurcated government health system administered under two directorates located within the Ministry of Health and Family Welfare: the Directorate General of Family Planning (DGFP) and the Directorate General of Health Services (DGHS). Historically, menstrual regulation services have been provided primarily by DGFP facilities and by nongovernmental clinics operated by the Reproductive Health Services Training and Education Program (RHSTEP) that are located within or near government facilities. In contrast, postabortion care has been provided primarily by DGHS facilities, which include the obstetrics and gynecology wards and the emergency departments of health facilities. Contraceptive commodities are procured through the DGFP rather than through the DGHS, and have not been consistently available in DGHS facilities, where the majority of clients receiving postabortion care are served.[10]

The present study was designed to identify characteristics of uterine evacuation service delivery associated with women's choosing a short-acting contraceptive method (pill, condoms and injectable) rather than no method following an abortion in Bangladesh. Our focus on contraceptive methods that women are medically eligible to initiate on the day of a uterine evacuation allows us to assess gaps in service delivery.

METHODOLOGY

Sample

This cross-sectional analysis used baseline data from a prospective parent study that aimed to understand postabortion contraceptive use among women who chose to initiate use of a short-acting method following a uterine evacuation. The parent study enrolled 498 women aged 18–49 who had had a uterine evacuation at one of 16 randomly selected facilities that took part in an intervention to improve provision of uterine evacuation services.

A stratified one-stage cluster sampling approach was used to select women for the parent study. In Bangladesh, uterine evacuation is provided at 5,301 facilities.[10] The sampling frame for this study consisted of 47 facilities located in Dhaka, Chittagong, Rajshahi and Sylhet divisions that participated in an intervention to train providers in provision of woman-centered uterine evacuation; 39 were government facilities and eight were RHSTEP clinics located inside or near government facilities. Facilities from Barisal, Khulna and Rangpur divisions were not sampled because they were not receiving the intervention. The sample included both DGFP and DGHS facilities and spanned the primary, secondary and tertiary levels. The primary-level facilities were 11 family welfare centers (DGFP) and seven upazila health complexes (which have a DGFP unit and a DGHS unit); the secondary facilities were six district hospitals (DGHS) and 10 maternal and child welfare centers (DGFP); and the tertiary facilities were five medical college hospitals (DGHS) and 8 RHSTEP clinics. Sixteen facilities were randomly selected using probability proportional to size sampling within facility-type strata (primary, secondary or tertiary); compared with the full set of facilities that provide uterine evacuation services in Bangladesh, facilities included in this study were more likely to be secondary or tertiary facilities and to be located in urban settings.*

The goal of the intervention was to integrate menstrual regulation, postabortion care and postabortion contraceptive services across DGHS, DGFP and RHSTEP facilities. Intervention activities included training providers to use WHO-approved uterine evacuation methods, prevent infection and ensure availability of appropriate equipment and supplies. Because all participating facilities received the intervention, the quality of the care that clients received when seeking uterine evacuation and postabortion contraceptives was similar across facilities, and all women had access to at least two modern methods of contraception.

*For convenience, we use the word "facility" to refer both to stand-alone facilities managed by the DGFP, DGHS or RHSTEP and to the DGFP- and DGHS-managed units within upazila health complexes.

All women who had had a menstrual regulation or received postabortion care were screened for study eligibility by trained female research assistants who were posted in the selected facilities during all available clinic hours. Women were eligible to participate in the parent study if they were aged 18–49, had received uterine evacuation services, and either had chosen the pill, the injectable or condoms as a postabortion contraceptive method or had not chosen a method. Women who selected a long-acting or permanent method on the day of their procedure (approximately 14% of clients) were ineligible to participate. The parent study sought to understand postabortion contraceptive use patterns of women who chose short-acting methods (including women who subsequently switched to long-acting methods) because the Bangladeshi government is seeking to increase uptake of long-acting postabortion contraceptive methods.[13] An advantage of our focus on women who chose a short-acting method is that because WHO guidelines on postabortion provision of such methods are consistent regardless of the type and setting of uterine evacuation,[4] any observed variation in women's contraceptive choices by service characteristics suggests gaps in provision.

A total of 555 women were invited to participate in the study and 498 were enrolled; the response rate was 90%. Nineteen women were excluded from the present analysis because they reported on the day of their procedure that they intended to become pregnant within the next four months; the analytic sample thus consisted of the 479 women who did not intend to become pregnant during that time frame. Women who had received postabortion care (including those who had had miscarriages) were included in the analytic sample, even though they are often excluded from studies of postabortion contraception in settings where abortion is legal, because we sought to understand whether the health system was meeting women's contraceptive needs on the day of uterine evacuation, regardless of treatment type.

After providing informed consent and recovering from their procedure, study participants completed a quantitative, interviewer-administered survey at the facility. Surveys were conducted in Bangla and lasted 30–45 minutes. The survey questionnaire was developed in English and translated to Bangla; it was then back-translated and tested, and adjustments were made as necessary. Data were collected from March to October 2013.

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

Measures

The two outcome measures assessed in this study were the decision on the day of the uterine evacuation to use a short-acting contraceptive method and the type of short-acting method selected. Each woman was asked, "Did you choose a method to prevent pregnancy today?" If she responded yes, she was asked, "Which primary method did you choose?" The primary outcome was having chosen a short-acting method (pill, condoms or injectable); the secondary outcome was the type of short-acting method the woman chose.

Information on sociodemographic and household characteristics thought to be associated with women's postabortion contraceptive choice was collected using standard questions from the 2011 Bangladesh Demographic and Health Survey.[9] These characteristics were age, partner's age,* and age difference between the woman and her partner (all measured in years); religion (Islam, Hinduism or Buddhism); marital status (married or formerly married); number of children (0, 1–2 or 3 or more); household structure (nuclear or extended); whether the woman's partner lived with her; area of residence (urban or rural); whether the woman was a rural-to-urban migrant (i.e., she was living in a city but had previously lived in a village); and the administrative division where the woman obtained the uterine evacuation.

The service delivery characteristics we included in our analyses were treatment type, procedure type, facility level and facility management type. Treatment type was classified as menstrual regulation or postabortion care. Procedure type was categorized as vacuum aspiration, medication abortion, or dilation and curettage (D&C); the questionnaire did not differentiate between manual and electric vacuum aspiration, but facility logbook data indicate that electric vacuum aspiration was used in only 0.05% of uterine evacuation cases. Medication abortion was being introduced in Bangladesh at the time the study data were collected, and such procedures may have been done using either the newly available mifepristone/misoprostol combination pack or misoprostol alone. Facility level was categorized as primary, secondary or tertiary. Finally, the management type of the facility where the woman received uterine evacuation services was categorized as DGHS or as DGFP or RHSTEP. The last two types were combined for analytic purposes because RHSTEP clinics serve as the family planning provider within or near large DGHS facilities, such as medical college hospitals, whereas DGFP facilities serve as the family planning provider at the primary and secondary levels of the government health system.

Data Analysis

We present descriptive data on women's sociodemographic and household characteristics, both for the sample as a whole and by whether women chose a short-acting method. Uterine evacuation service delivery characteristics are also presented by whether women chose a short-acting method, as well as by the type of short-acting method selected. For all of these comparisons, we report p-values from design-based chi-square tests.

*We use the term "partner" rather than "husband" because one respondent was no longer married.

A sequential logit approach (using the seqlogit procedure in Stata/SE 14.0) was used to model the choice of a short-acting method (vs. no method) and the type of short-acting method selected. We modeled this as a two-stage process in which a woman first decides to use a short-acting method and then decides which method to use (condoms, pill or injectable). For the first stage, the decision to use a short-acting method was modeled among all uterine evacuation clients; for the second, method selection was modeled (separately for each method) among women who chose a short-acting method and accounted for the conditional probability of women's choosing a short-acting method in the first stage. In both stages, models adjusted for sociodemographic characteristics associated with the primary outcome in the bivariate analyses, including age and number of children. Although education was not associated with choosing a short-acting method in the bivariate analysis, we included it as an a priori hypothesized confounder. Partner's age was associated with choosing a short-acting method but was not included in the regression models because of collinearity with woman's age. Other sociodemographic characteristics not associated with the outcome in bivariate analyses were not included in the final models. To allay concerns about omitted-variable bias, we tested an alternative regression model that included all sociodemographic characteristics from the bivariate analyses; results were consistent with those of the final model. The more parsimonious model was preferable because confidence intervals were wider when all variables were included.

We ran model diagnostics to ensure that collinearity did not exist between variables. This was a concern particularly because uterine evacuation clients at DGHS facilities primarily receive postabortion care, while those at DGFP and RHSTEP facilities primarily receive menstrual regulation services. However, variance inflation factor diagnostics did not reveal any multicollinearity and found variation in type of uterine evacuation procedure within each facility management type. Fewer than 2% of observations were missing data on the correlates of interest; in these instances, mean value imputation was used. Statistical significance was defined as an alpha of .05 or less. All analyses were conducted using Stata/SE 14.0 and accounted for the complex survey design.

RESULTS

On average, women enrolled in the study were aged 27 and their partners were aged 35. Fifty-six percent of women, and 55% of partners, had at least a secondary education (Table 1). Eighty-two percent had at least one child, and 90% were Muslim. More than half lived in urban settings, and almost one-quarter had migrated from a rural area to an urban one. Nearly half of the respondents were from Dhaka division (48%), while smaller proportions were from Sylhet (24%), Rajshahi (16%) and Chittagong (13%).

Seventy-three percent of study participants chose a short-acting contraceptive method on the day of their uterine evacuation. Compared with women who did not choose a method, those who chose a short-acting method were older (28 vs. 26) and had older partners (36 vs. 34) (not shown). Only 58% of nulliparous women chose a short-acting method, compared with 75% of women with one or two children and 79% of women with three or more children (Table 1).

Women's contraceptive decisions also differed according to the type of uterine evacuation they had. Eighty-five percent of women who had had a vacuum aspiration chose a short-acting method instead of no method, compared

TABLE 1. Selected characteristics of women aged 18–49 who underwent uterine evacuation, and percentage distribution of women with these characteristics, according to whether they chose a short-acting contraceptive method on day of the procedure, Bangladesh, 2013

Characteristic	All (N=479)	Chose short-acting method (N=348)	Chose no method (N=131)	Total
All	**100.0**	**72.7**	**27.3**	**100.0**
Education				
None	14.0	59.7	40.3	100.0
Primary	29.6	76.1	23.9	100.0
≥secondary	56.4	74.1	25.9	100.0
Partner's education				
None	16.7	67.5	32.5	100.0
Primary	28.2	74.1	25.9	100.0
≥secondary	55.1	73.5	26.5	100.0
Marital status				
Married	99.8	72.6	27.4	100.0
Formerly married	0.2	100.0	0.0	100.0
No. of children				
0	17.7	57.6	42.4**	100.0
1–2	56.8	74.6	25.4	100.0
≥3	25.5	78.7	21.3	100.0
Religion				
Islam	89.8	72.6	27.4	100.0
Hinduism	10.0	72.9	27.1	100.0
Buddhism	0.2	100.0	0.0	100.0
Household structure				
Nuclear	55.5	71.4	28.6	100.0
Extended	44.5	74.2	25.8	100.0
Partner's residence				
Lives with respondent	92.3	74.0	26.0	100.0
Lives elsewhere	7.7	56.8	43.2	100.0
Residence				
Urban	57.0	63.7	36.3	100.0
Rural	43.0	84.5	15.5	100.0
Rural-to-urban migrant				
Yes	23.6	56.6	43.4	100.0
No	76.4	77.6	22.4	100.0
Division				
Dhaka	47.6	57.9	42.1	100.0
Sylhet	23.6	88.5	11.5	100.0
Rajshahi	16.3	87.2	12.8	100.0
Chittagong	12.5	80.0	20.0	100.0

**p<.01 for differences among percentage distributions for this characteristic.

with only 43% of women who had had a medication abortion and 36% of those who had had a D&C (Table 2). Treatment type, facility level and facility management type were not associated with choosing a short-acting method. Among women who chose such a method, 14% selected condoms, 62% selected oral contraceptives and 24% chose an injectable. Method choice was associated with procedure type and facility management type. Among women who chose short-acting methods, 85% of D&C clients selected the pill, compared with 61% of vacuum aspiration clients and 33% of medication abortion clients; in contrast, condoms were selected by 47% of medication abortion clients, but only 14% of vacuum aspiration clients and 6% of D&C clients (Table 2). Eighty-four percent of women attending DGHS-managed facilities selected the pill, compared with 49% of those attending DGFP or RHSTEP facilities.

In the first multivariable sequential logistic regression model, the odds that a woman chose a short-acting method were lower if she had had a medication abortion (odds ratio, 0.1) or a D&C (0.3) than if she had undergone vacuum aspiration (Table 3). Facility level was also associated with choosing a short-acting method; the odds of choosing such a method were 87% lower among women treated at secondary facilities than among those treated at primary facilities (0.1).

The next three models show that selection of specific short-acting contraceptive methods was associated with uterine evacuation procedure type, facility level and facility management type. The odds of choosing condoms rather than another short-acting method among women who had had a medication abortion were more than twice the odds among women who had had a vacuum aspiration (odds ratio, 2.7). In addition, the odds of selecting condoms were 41% lower among women attending secondary facilities than among those attending primary facilities (0.6), and 68% lower among women attending DGHS facilities than among those attending DGFP or RHSTEP facilities (0.3). In contrast, the next model indicates that women had reduced odds of selecting the pill if they had had a medication abortion rather than a vacuum aspiration procedure (0.6), and elevated odds of selecting the pill if they had attended a DGHS facility rather than a DGFP or RHSTEP facility (1.7). In the final model, selection of the injectable was associated only with facility management type: Women attending DGHS-managed facilities had 68% lower odds of choosing this method than did women attending a DGFP or RHSTEP facility (0.3).

DISCUSSION

This study indicates that the likelihood that women choose a short-acting contraceptive method on the day of a uterine evacuation—and their choice of a specific short-acting method—differs according to the procedure type, facility level and facility management type. These findings stand in contrast to WHO guidelines that state that the provision of short-acting contraceptives following an abortion should be uniform across these characteristics.

Women who had had a medication abortion or D&C were less likely than those who had undergone vacuum aspiration to choose a short-acting contraceptive method

TABLE 2. Percentage distribution of women aged 18–49 who had a uterine evacuation, by whether they chose a short-acting method on day of procedure and by the short-acting method chosen, according to selected characteristics of uterine evacuation service delivery, Bangladesh, 2013

Characteristic	No.	Contraceptive choice			Method selected†			
		Short-acting method (N=348)	No method (N=131)	Total	Condoms (N=50)	Pill (N=215)	Injectable (N=83)	Total
All	479	72.7	27.3	100.0	14.4	61.8	23.9	100.0
Procedure type								
Vacuum aspiration	353	85.0	15.0***	100.0	13.7	60.7	25.6***	100.0
Medication abortion	35	42.9	57.1	100.0	46.7	33.3	20.0	100.0
Dilation and curettage	91	36.3	63.7	100.0	6.1	84.8	9.1	100.0
Treatment received								
Menstrual regulation	280	83.2	16.8	100.0	15.5	57.9	26.6	100.0
Postabortion care	199	57.8	42.2	100.0	12.2	69.6	18.2	100.0
Facility level								
Primary	117	93.2	6.8	100.0	13.8	68.8	17.4	100.0
Secondary	125	56.8	43.2	100.0	12.7	64.8	22.5	100.0
Tertiary	237	70.9	29.1	100.0	15.5	55.9	28.6	100.0
Facility management type								
DGFP/RHSTEP	270	81.1	18.9	100.0	18.7	48.9	32.4***	100.0
DGHS	209	61.7	38.3	100.0	7.0	83.7	9.3	100.0

***p<.001 for differences among percentage distributions for this characteristic. †Among women who chose a short-acting method. *Notes*: Percentages may not total 100.0 because of rounding. DGFP=Directorate General of Family Planning. RHSTEP=Reproductive Health Services Training and Education Program. DGHS=Directorate General of Health Services.

TABLE 3. Odds ratios (and 95% confidence intervals) from sequential logistic regression models assessing the associations of uterine evacuation service delivery characteristics with women's choosing a short-acting contraceptive and with type of short-acting method selected

Characteristic	Chose a short-acting method	Method selected		
		Condoms	Pill	Injectable
Procedure type				
Vacuum aspiration (ref)	1.00	1.00	1.00	
Medication abortion	0.11 (0.03–0.40)*	2.67 (1.49–3.80)*	0.61 (0.49–0.77)*	0.77 (0.27–2.21)
Dilation and curettage	0.30 (0.12–0.72)*	0.47 (0.14–1.51)	1.26 (0.89–1.79)	0.55 (0.19–1.66)
Treatment received				
Menstrual regulation (ref)	1.00	1.00	1.00	1.00
Postabortion care	0.66 (0.33–1.33)	1.63 (0.70–3.80)	0.88 (0.68–1.15)	1.08 (0.81–1.44)
Facility level				
Primary (ref)	1.00	1.00	1.00	1.00
Secondary	0.13 (0.03–0.54)*	0.59 (0.39–0.88)*	1.10 (0.74–1.63)	1.09 (0.42–2.83)
Tertiary	0.25 (0.05–1.22)	0.65 (0.27–1.56)	0.96 (0.74–1.24)	1.41 (0.92–2.16)
Facility management type				
DGFP/RHSTEP (ref)	1.00	1.00	1.00	1.00
DGHS	0.36 (0.07–1.78)	0.32 (0.17–0.60)*	1.66 (1.26–2.18)*	0.32 (0.18–0.58)*

*p<.05. †Among women who chose a short-acting method. *Notes:* All models adjust for age, education and number of children. DGFP=Directorate General of Family Planning. RHSTEP=Reproductive Health Services Training and Education Program. DGHS=Directorate General of Health Services.

on the day of their uterine evacuation. Although WHO does not recommend routine follow-up visits for abortion clients,[4] in practice Bangladeshi women who have a medication abortion or D&C are often asked to return for a follow-up visit to confirm termination of the pregnancy (in the case of medication abortion) or to check for complications (in the case of D&C). Thus, these clients may be less likely than those who undergo vacuum aspiration to be offered a contraceptive method on the day of their procedure. Our study lacked data on postabortion contraceptive counseling, but it is possible that clients who have a medication abortion or a D&C are less likely to receive counseling, or receive lower quality counseling, on the day of the procedure than do vacuum aspiration clients, especially if providers feel that counseling can be postponed until a follow-up visit. WHO recommends that clinicians offer all women postabortion contraceptive counseling and a method before the women leave the health facility;[4] clinicians who fail to do so may be missing an opportunity to meet the needs of their clients, especially those who do not return for the requested follow-up visit or do not come back before fertility returns. We do not have data on provider characteristics, but it is possible that women who have a medication abortion or D&C are more likely than those who undergo vacuum aspiration to be treated by doctors. Midlevel providers are often the primary providers of contraceptives, and a study from Myanmar showed that involving midlevel providers in abortion care can improve postabortion contraceptive use.[14,15] Thus, unobserved confounding by provider type may have contributed to the difference in postabortion contraceptive choice by procedure type.

Likewise, we found that women who were attending secondary-level facilities were less likely to choose a short-acting method than were women attending primary-level facilities. Primary-level facilities, including family welfare centers and upazila health complexes, are staffed mostly by midlevel providers; if levels of postabortion contraceptive provision are elevated when midlevel clinicians are involved in care,[14,15] the presence of such clinicians at primary-level facilities might help explain the positive association between such facilities and women's choosing a short-acting method rather than no method. Studies have demonstrated that postabortion contraceptive use is associated with a variety of individual- and family-level characteristics, including past contraceptive use and spousal dynamics (e.g., concordance in fertility desires and experience of intimate partner violence);[16–20] interactions between such characteristics and the service delivery correlates observed in this study likely influence women's postabortion use of short-acting contraceptives in Bangladesh.

Among women who chose short-acting contraceptive methods, those who had had a medication abortion were more likely than those who had undergone vacuum aspiration to select condoms and less likely to select the pill. Medication abortion was introduced in Bangladesh during our data collection period, and although clinical guidelines state that women can initiate use of hormonal methods immediately after taking the first dose of a medication abortion regimen (typically at the health facility),[4] it is possible that providers were hesitant to offer such methods until uterine evacuation was complete, resulting in clients selecting condoms. Facility management type was not associated with the choice to use a short-acting method, but women who did choose such a method were less likely to select condoms or the injectable and more likely to select the pill if they had been seen at a DGHS-managed facility. Previous studies found significant differences in postabortion contraceptive provision by facility management

type in Bangladesh;[10,21] that we observed no differences between DGHS facilities and DGFP and RHSTEP facilities in women's choosing a short-acting method may be due to the intervention these facilities received, which focused on integration of menstrual regulation, postabortion care and postabortion contraceptive services. However, our findings suggest that despite this intervention, additional work is needed in DGHS-managed facilities to ensure that women have access not just to the pill but to the range of methods for which they are eligible.

Limitations

Our results should be viewed in light of the study's limitations. Although the sample was one of the few to focus on postabortion clients in Bangladesh, women younger than 18 and those who selected long-acting or permanent contraceptive methods were not included. Compared with the general population in Bangladesh, participants were more likely to live in urban areas and were better educated.[9] In addition, higher level and urban facilities were over-represented in our sample, and private facilities were not included. As a result, findings may not be generalizable to the broader population of uterine evacuation clients in Bangladesh, and postabortion use of short-acting contraceptives may have been higher in our sample than among other uterine evacuation clients.

In addition, study respondents were recruited from facilities where an intervention to improve uterine evacuation service quality was being implemented, and the service delivery characteristics of the facilities may have differed from those of other facilities providing such services. We likely underestimate the role of service delivery characteristics in postabortion contraceptive choice, as the quality of uterine evacuation care was likely higher and more uniform in study facilities than in other facilities.

Finally, we lack information on the quality and content of postabortion contraceptive counseling, which other studies have shown to be associated with contraceptive choice.[22] We modeled contraceptive choice as a two-stage process in which women first decide to use a short-acting method and then select a specific method, but unmeasured confounding by provider type and quality of counseling may have influenced the results.

Conclusion

The choice to use a short-acting contraceptive method, and the type of short-acting method selected, are correlated with uterine evacuation service delivery practices. Because clinical guidelines for postabortion use of short-acting contraceptive methods do not vary by service delivery characteristics of uterine evacuation sites, our findings suggest that gaps in service provision exist. Rights-based family planning programs strive to ensure that women's decisions to use contraceptives are fully informed, and more work is needed to minimize service delivery barriers to achieving this goal. Continued provider training regarding WHO guidelines[4] should be implemented to ensure that all women are offered a contraceptive method on the day of their uterine evacuation, regardless of the procedure type. At the health system level, interventions should ensure that uterine evacuation clients have access to the full range of contraceptive information and services, and that women's choices, rather than service delivery factors, drive postabortion contraceptive use.

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RESUMEN

Contexto: *La Organización Mundial de la Salud recomienda ofrecer anticonceptivos el mismo día en el que se realiza un procedimiento de evacuación uterina (i.e., aborto inducido o atención postaborto de un aborto incompleto). Los métodos de corta duración pueden iniciarse el día de la evacuación uterina, independientemente del tipo de procedimiento.*

Métodos: *Se utilizaron datos de una encuesta aplicada a una muestra proveniente de instituciones de salud que incluía 479 mujeres bangladesíes en edades de 18–49 que no tenían intenciones de quedar embarazadas en los cuatro meses posteriores a su evacuación uterina, para examinar la elección de métodos anticonceptivos de corta duración (píldoras, condones o inyectables). Mediante modelos de regresión logística secuencial se identificaron correlatos entre la prestación de servicios y la elección de anticonceptivos.*

Resultados: *Setenta y tres por ciento de las mujeres eligieron un método anticonceptivo de corta duración el día de su evacuación uterina. Las probabilidades de que una mujer eligiera un método anticonceptivo de corta duración, en vez de no elegir ningún método, fueron más bajas en las mujeres que habían tenido un aborto con medicamentos (razón de probabilidades, 0.1) o dilatación y curetaje (0.3) en comparación con aquellas que habían tenido una aspiración endouterina. La probabilidad de que una mujer eligiera un tipo específico de método de corta duración varió según el tipo de evacuación uterina que había tenido, el nivel de la institución de salud y la entidad gubernamental o no gubernamental que administraba la institución.*

Conclusiones: *Las características relativas al servicio de prestación de evacuación uterina pueden actuar como barreras para las mujeres a la hora de decidir qué método anticonceptivo usar después de un aborto. La capacitación y el monitoreo de los proveedores de servicios pueden ayudar a asegurar que todas las usuarias de evacuación uterina tengan acceso a una gama completa de información y servicios anticonceptivos para que sean sus propias elecciones, en lugar de los factores relacionados con la prestación de servicios, las que determinen el uso de anticonceptivos postaborto.*

RÉSUMÉ

Contexte: *L'Organisation mondiale de la Santé recommande que des contraceptifs soient proposés le jour de la réalisation d'une évacuation utérine (pour avortement provoqué ou soins après avortement incomplet). Les méthodes de courte durée peuvent être adoptées dès le jour même, indépendamment du type d'intervention.*

Méthodes: *Les données d'enquête sur un échantillon en établissement de santé composé de 479 Bangladaises âgées de 18 à 49 ans sans intention de grossesse durant les quatre mois suivant leur évacuation utérine ont servi à examiner le choix de méthodes contraceptives de courte durée opéré par les femmes (pilule, préservatif ou contraceptif injectable). Les corrélats de prestation de services du choix contraceptif ont été identifiés au moyen de modèles de régression logistique séquentielle.*

Résultats: *Soixante-treize pour cent des femmes avaient choisi une méthode contraceptive de courte durée le jour de leur évacuation utérine. La probabilité de ce choix, par rapport à celui d'aucune méthode, s'est révélée plus faible parmi les femmes qui avaient subi un avortement médicamenteux (RC, 0,1) ou une procédure de dilatation et curetage (0,3) que parmi celles ayant subi une aspiration sous vide. La probabilité qu'une femme choisisse un type spécifique de méthode de courte durée varie suivant le mode d'évacuation utérine subi, le niveau de l'établissement médical et l'organisme gouvernemental ou non gouvernemental chargé de sa gestion.*

Conclusions: *Les caractéristiques de prestation de services d'évacuation utérine peuvent faire obstacle au choix, par les femmes, d'une méthode contraceptive après un avortement. La formation et le suivi des prestataires peuvent contribuer à garantir que toutes les patientes ayant subi une évacuation utérine aient accès à la gamme complète d'informations et de services contraceptifs et que leurs choix, plutôt que les facteurs de prestation des services, régissent la pratique contraceptive après avortement.*

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Author contact: *epearson@hsph.harvard.edu*