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FAMILY PLANNING

Effect of post-menstrual regulation family-planning service quality on subsequent contraceptive use in Bangladesh

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ABSTRACT

Objective: To determine whether the quality of post-menstrual regulation family-planning services (post-MRFP) affected contraceptive use at 3-month follow-up. *Methods:* 915 women who received post-MRFP in 2 public and 1 NGO clinics in a district in Bangladesh were interviewed to obtain information on service quality and other characteristics. Quality was scored based on 21 items and the score divided into 3 categories: low (0–6); medium (7–11); and high (12–21). Three months after menstrual regulation, 902 of the women were interviewed at their residence or a clinic and contraceptive status was recorded. Adjusted odd ratios (aORs) for using contraception were calculated via multivariate logistic regression. *Results:* Contraceptive use was positively correlated with the level of service quality, with 78% use among women who received the lowest-quality care and 92% use among women who received the highest-quality care. The aOR for contraceptive use was 1.80 (95% confidence interval [CI], 1.11–2.93) among women who received moderate-quality services and 3.01 (95% CI, 1.43–6.37) among women receiving high-quality services compared with those who received poor-quality services. *Conclusion:* Good-quality post-MRFP increases contraceptive use, at least in the short term.

1. Introduction

Globally, women experience 76 million unwanted pregnancies annually, 42 million of which are terminated through induced abortion [1]; approximately 48% of those are unsafe, performed by unskilled people or in unhygienic conditions [2]. Overall, 97% of unsafe abortions occur in low-resource countries and these are responsible for 13% of maternal deaths globally [2]. The experience of unintended pregnancy and abortion, with its related risks, is not a singular event for many women. Studies show that 25%–50% of women seeking abortions report at least 1 past abortion [3], indicating that many women are at risk for the consequences of unintended pregnancy more than once. Although circumstances vary, repeat abortion can be attributed to non-use of contraception, inconsistent or incorrect use, or method-related failure [4]. This cycle of unintended pregnancy and abortion is likely to continue if provision of information and services to prevent future pregnancies is neglected.

Postabortion family planning (PAFP)—provision of a range of contraceptive methods, accurate information, sensitive counseling, and referral for ongoing care [5], all of which reflect dimensions of service quality [6]—has been promoted as a means of increasing contraceptive use and decreasing repeat abortion [7,8]. Postabortion family planning is effective in ensuring contraceptive acceptance by over 70% of women who attend facilities for abortion services [9–13]. However, contraceptive acceptance following abortion does not mean continued contraceptive use.

Evidence of the effect of PAFP on continued contraceptive use is inconclusive. While a few studies show increased uptake of contraception and continuation of methods for up to 12 months [12–14], others find no such effects [15,16]. For instance, in a prospective intervention study of PAFP in Zimbabwe, a significantly larger proportion of women in the intervention arm (which included provider training, counseling, and provision of free contraception) than in the control arm adopted a highly effective method of contraception (96% vs 5%) and fewer had unplanned pregnancies (15% vs 34%) during the year-long follow-up [12]. By contrast, a study testing an intervention to improve PAFP counseling failed to show either a decrease in the rate of repeat abortions or an increase in contraceptive use at 4-month follow-up [15]. Other studies have shown that providing women their preferred method, especially when there is husband–wife agreement on the method [17], and informing women about method use and adverse effects are associated with higher continuation rates [18,19]. In addition,

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the setting [20] and provider's communication skills [21] are key to achieving good-quality family-planning services. Although important, quality of PAFP and factors affecting continuation of contraceptive use by women after abortion have received less attention.

Bangladesh offers a unique setting in which to assess whether the quality of counseling affects contraceptive continuation. In Bangladesh, abortion is prohibited except to save a woman's life but menstrual regulation is provided in both public and non-governmental sectors. According to an official government circular, menstrual regulation is the evacuation of the uterus by vacuum aspiration within 6–10 weeks of a missed period in a woman with a previously normal cycle [22,23]. Menstrual regulation is officially performed without a pregnancy test [23] because it is considered to be an "interim method to establish a state of non-pregnancy in a woman who is at risk of being pregnant" [24]. In terms of post-menstrual regulation family planning (post-MRFP), although contraception is provided by both public and non-governmental organization (NGO) facilities, counseling varies markedly by setting. One analysis found that post-MRFP counseling in public facilities was almost non-existent, whereas NGOs emphasized counseling because they had targets for long-term and permanent methods [23].

Using these naturally occurring differences, we conducted a longitudinal study to examine whether the quality of post-MRFP affected contraceptive continuation among women attending clinics for menstrual regulation services in a district in Bangladesh.

2. Materials and methods

The present study was conducted during 2009 and 2010 in 2 public and 1 NGO clinics in a district in central Bangladesh. An NGO facility located in a public medical college hospital was selected; it was believed that its location might lessen differences between women from public and those from NGO facilities. The public facilities were selected based on their reported patient flow, to ensure an adequate sample size, and because of their accessibility. Women seeking their first menstrual regulation were eligible for participation if they were over 18 years of age, resided in the study district, and did not desire pregnancy within 2 years.

Trained female interviewers conducted exit interviews with 915 women who underwent menstrual regulation and who were provided post-MRFP. The questionnaires, which were adapted from tools developed for the Quick Investigation of Quality for Clinic-based Family Planning Programs, captured information on sociodemographic and reproductive characteristics, contraceptive history, and services received during the visit. Reproductive characteristics included number of living children, the woman and her husband's fertility intentions, and whether or not the woman had discussed family planning with her husband. Women who did not want to have a/another child were classified as wanting to limit births, while those who wanted to wait more than 2 years to have another child were considered to want to space births. Contraceptive history included method used and regularity of use before menstrual regulation, with regularity defined according to method-specific effective-use patterns (e.g. daily use for pill users). Principal component analysis was used to predict wealth scores based on assets and used the resulting quintiles as a measure of relative economic wellbeing. Personal contact information was recorded separately and only study researchers had access to the information.

If the woman agreed at exit interview, she was contacted before follow-up through phone calls or informal household visits. Women had the option of calling the study team to reschedule a visit or to tell the team not to contact them.

Three months after menstrual regulation, follow-up interviews were conducted at a location the woman identified during the initial interview. The follow-up interview asked about current contraceptive use, including regularity of use, and a pregnancy test was carried out. At follow-up, contraceptive use was recorded regardless of whether it was the same method that the participant accepted at study enrollment.

Written informed consent was obtained from each woman at baseline and follow-up. The study was approved by the Ethical Review Committee at the International Centre for Diarrhoeal Disease Research, Bangladesh.

Quality was defined based on whether recommended components of care were provided, using a composite score based on the Bruce/Jain framework for quality of family-planning services [6]. The score was derived from 21 items reflecting 4 dimensions of quality: needs assessment (0–4); choice of method (0–4); information on method use and follow-up (0–6); and interpersonal relations (0–7) (Table 1). The scores were categorized as low- (0–6), medium- (7–11), and high- (12–21) quality post-MRFP services.

Bivariate methods were used to explore the association between various factors and contraceptive use. The 10 women who were lost to follow-up were excluded. Multivariate logistic regression was used to test for associations between the quality of post-MRFP services and contraceptive use at 3-month follow-up, after adjusting for factors known to be related to contraceptive continuation. All analyses were performed using STATA version 11 (StataCorp, College Station, TX, USA).

3. Results

All women in the sample were married and the majority were 20–39 years of age (84%), unemployed (62%), and Muslim (94%) (Table 2). More than half had primary or no education. Two-thirds of the women had 2 or more living children; 57% wanted to stop childbearing, while 42% were planning to postpone childbearing for more than 2 years. The majority (89%) of women reported similar fertility intentions to those of their husband but 28% had never discussed family planning with their husband.

At follow-up, contraceptive users and non-users differed. A larger proportion of non-users than users underwent menstrual regulation in public clinics (79% vs 64%; $P \leq 0.001$) and non-users had fewer

Table 1
Quality dimensions (score range) and items measured at baseline to assess the quality of post-MRFP services in selected public and NGO clinics in Bangladesh.

Quality dimensions (score range)	Percentage of women (n = 902)
Needs assessment (0–4)	
Whether she has any living children	83
Whether she wanted to conceive a child	45
How long she wanted to wait before conceiving	62
Previous contraceptive use	37
Method choice (0–4)	
Any preference for a method	57
Discussed at least 1 method	76
Received a method today	44
Received her preferred method	24
Information on method use and follow-up (0–6)	
Method use	30
Adverse effects	20
Where to seek help in case of problem	21
Method does not protect against STIs	1
Return to fertility on stopping method use	22
When to return for follow-up	52
Interpersonal relations (0–7)	
Did she feel comfortable asking questions?	80
Did provider encourage her to ask questions?	14
Was privacy ensured during her counseling?	37
Did provider assure her confidentiality of information?	2
Did provider treat her with respect?	95
Was the content of counseling adequate?	42
Was the duration of counseling adequate?	37
Total quality (0–21)	
Low (score 0–6)	38
Medium (7–11)	30
High (12–21)	32

Abbreviations: MRFP, menstrual regulation family planning; NGO, non-governmental organization; STI, sexually transmitted infection.