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CLINICAL ARTICLE

Postpartum contraceptive needs in northern Haiti

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ABSTRACT

Objective: To assess the knowledge of, attitudes toward, and practices regarding postpartum contraception among healthcare providers and postpartum women in northern Haiti. **Methods:** Six focus groups were conducted with postpartum patients and 3 were conducted with maternity service providers; a structured questionnaire was then administered to postpartum patients. **Results:** In total, 282 postpartum women were included in the present study: 249 in the survey and 33 in focus groups. Although 97.9% of women expressed a desire for family-planning counseling before discharge from the postpartum ward, only 6.0% of women received such counseling. Most women wanted to space or limit their pregnancies; 79.8% of women, including those with only 1 child, wanted to choose a contraceptive method before discharge. Providers expressed concern for the volume of induced abortions and maternal deaths within the hospital, which many felt could be averted by improving postpartum family planning. However, there was no postpartum contraceptive counseling or method provision in the present setting, and no providers had experience in initiating methods immediately postpartum. **Conclusion:** Efforts to integrate family planning into postpartum care services could help to reduce the unmet need for family planning, and help patients and providers reach their goals.

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1. Introduction

Haiti's maternal mortality ratio of 670 per 100 000 live births is among the highest in the western hemisphere [1]. The complications that contribute to maternal deaths may not be predictable or preventable, but the unintended pregnancies that lead to these complications are. The high rates of unintended pregnancy in Haiti are largely due to low rates of modern contraceptive use—with only 25% of women of reproductive age in unions using a modern method of contraception [2]—resulting in short birth intervals and larger-than-intended family size.

The integration of family-planning services into immediate postpartum care may effectively promote the use of contraception among women who want to space or limit their childbearing, and who may otherwise not have the opportunity to seek such services [3]. Because postpartum contraception is not widely used in Haiti, the aim of the present study was to assess the knowledge of, attitudes toward, and practices regarding such contraception among healthcare providers and postpartum women in northern Haiti.

2. Materials and methods

The study took place (in collaboration with Emory University, Atlanta, USA) at Justinian University Hospital, Cap Haitien, Haiti, between March 1 and October 31, 2008. Institutional Review Board approval was obtained from both sites, and written informed consent was obtained from all participants.

Patient focus groups were designed to evaluate reproductive goals, knowledge/acceptance of, and desire for contraception among Haitian postpartum women who delivered in a public hospital setting. There were 6 patient focus groups, each containing 4–6 participants. The groups were conducted until information saturation was reached (i.e. the information obtained in focus groups became repetitive and no new information was obtained). Inclusion criteria were: immediate postpartum status (defined as any time from delivery to hospital discharge); at least 18 years of age; and more than 20 weeks of pregnancy at delivery. All postpartum women were identified via patient roster and notified of the study through direct recruitment by the research team.

Provider focus groups were conducted among healthcare providers at the study hospital to assess their knowledge of, attitudes toward, and practices regarding postpartum contraception. There were 3 provider focus groups: 1 each for faculty, residents, and nurses. All 36 providers at the study hospital were invited to participate in the study. Those who declined cited work responsibilities. All focus groups were conducted between March 1 and March 31, 2008.

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Discussion guides consisted of a series of open-ended questions and set probes for facilitators. The questions were reviewed by the local research team and modified to incorporate cultural context. The focus groups took place in a private setting on-site and were conducted in Haitian Creole and French. Each focus group was facilitated by a member of the research team. To ensure accuracy, the discussion guides were written in English, translated into Haitian Creole, and back-translated into English by experienced translators fluent in Creole, French, and English. All focus groups were audiotaped and notes were taken to capture non-verbal responses. Audio recordings and notes were transcribed and translated from Creole or French into English. Transcriptions and translations were spot-checked for accuracy against audio recordings and notes.

Prior to each phase of data collection, a training session was conducted to familiarize research assistants with the study tools and to refresh researchers with regard to the constructs of conducting ethical research. Validated training tools were used [4,5].

Data were analyzed using MAXqda software (VERBI, Marburg, Germany). A content analysis approach was used to determine common themes related to the categories addressed in the discussion guides. Codes were developed based on themes and applied to the text by the primary analyst. Selected transcripts were coded by a second analyst to assess intercoder reliability. Codes were compared, code definitions adjusted, and discrepancies resolved when merited.

The focus group findings were used to generate survey questions. The survey was piloted among 28 participants and changes were incorporated into the final survey, which was written in English and translated into Haitian Creole. The final survey was given to a convenience sample of 250 patients between August 1 and October 31, 2008. The sample size was chosen as an estimate of how many women could be surveyed in the available time frame. The delivery log for the time period of the survey phase was reviewed, indicating 377 eligible postpartum patients during that time, of whom 276 were invited to participate. The inclusion criteria were identical to those for the focus groups.

Survey data were analyzed with STATA version 9.0 (StataCorp, College Station, TX, USA). The 2 outcomes of interest were unplanned pregnancy and mistimed pregnancy. Patients who reported the incident pregnancy as unplanned were defined as having an unplanned pregnancy. If women did not achieve their stated desired spacing interval between deliveries, the pregnancy was classified as mistimed. Unadjusted and adjusted odds ratios (ORs) and 95% confidence intervals (CIs) were calculated to identify predictors of unplanned and mistimed pregnancies.

3. Results

The 33 participants in the patient focus groups articulated ambiguities they experienced regarding the use of family-planning methods, family size, and the influences of cultural norms. Economic hardship was a theme present across all patient focus groups. Some participants discussed economic hardship as a motivator to use family planning, whereas others viewed financial struggles as a reason to have more children. Women were acutely aware of the cost of raising children, the risk of children dying before the age of 5, the immediate economic benefit of spacing or limiting their number of children, and the conflicting pressures they faced regarding reproductive decisions within both a cultural and an economic context.

Fear of adverse effects associated with family-planning methods was discussed across all patient focus groups. The most common adverse effect mentioned was irregular bleeding. Long-term consequences of family planning were discussed, including fear of permanent infertility and death. Women expressed concern about exposing their breastfed infants to family-planning methods postpartum.

Several participants stated that, although they were interested in starting family planning after delivery, they would need their husbands' permission before doing so.

The 22 participants in the provider focus groups also discussed economic hardship and the importance of relationship stability. Providers expressed concern about the volume of induced abortions and maternal deaths within the hospital. They also expressed frustrations with their work environment, and the lack of human resources and training in family planning. Most residents had received intrauterine device (IUD) training using pelvic models, but only 1 had placed an IUD. Providers felt strongly that their knowledge, and patient access to family-planning methods and counseling were key components affecting patients' use of family planning.

Providers discussed economic difficulties as both barriers to patients accessing family planning and motivators for patients to use family planning. They referred to the cultural belief that, rather than contributing to economic challenges, children may be the solution to economic hardships, given their potential as future providers of economic support. There was also discussion that seeking economic security often leads to seeking relationship security, including having another child despite profound economic difficulties; it was felt that, once a union is stabilized with the birth of a child, male partners will often begin providing for the mother and her other children. Unions, power sharing within relationships, and how these influence family-planning choices were also discussed.

There was agreement across all provider strata that family-planning counseling and method initiation was not prioritized as a systematic service postpartum. It was felt that those receiving postpartum family-planning counseling were often multiparous women who were counseled to choose a permanent method.

Among the 249 (99.6%) women who completed the survey (1 survey was incomplete and not included in the analysis), 124 (49.8%) of the incident pregnancies were reported as unplanned (Table 1). Compared with women in other age groups, those aged 40–44 years most frequently reported their pregnancy as being unplanned (7/10 [70.0%]). Among the 50 women with 4 or more deliveries, 35 (70.0%) reported that the incident pregnancy was unplanned. Women with 4 or more deliveries were more likely than those with 1 child to report an unplanned pregnancy in both the univariate (OR 3.3; 95% CI, 1.6–6.8) and the multivariate (adjusted OR 5.8; 95% CI, 2.3–14.6) analyses. Age, education, socioeconomic status, and previous use of family planning were not significantly associated with unplanned pregnancy.

Among women aged 18–24 years, 79/96 (82.3%) reported a shorter interval than desired between children. Women who were at least 30 years of age were less likely than their younger counterparts to have a mistimed pregnancy (Table 2). Most women (56/95 [58.9%]) with 2 or 3 deliveries reported mistimed pregnancies. Among the women who did not use family planning after their previous delivery, 29/41 (70.7%) reported a mistimed pregnancy; mistimed pregnancies were more likely among these women than among those who used family planning after their previous delivery (adjusted OR 3.4; 95% CI, 1.3–9.1) (Table 2). Women who felt that their partners were not supportive of family planning were more likely than those whose partners were very supportive to have a mistimed pregnancy: 16/21 (76.2%) versus 51/100 (51.0%) (OR 3.1; 95% CI, 1.1–9.0); however, this was not significant in the multivariate analysis (adjusted OR 3.1; 95% CI, 0.9–10.0) (Table 2).

Women expressed a strong interest in postpartum family planning, with 229/234 (97.9%) interested in receiving relevant counseling before discharge from the hospital and 198/248 (79.8%) interested in deciding on a method before discharge (Table 1). There were no significant associations among potential predictors for interest in postpartum family planning.

4. Discussion

Haiti's maternal mortality ratio remains unacceptably high, in part because of a high rate of unintended pregnancy linked to a low rate of contraceptive use. Therefore, progress in improving maternal

Table 1
Demographic characteristics of hospitalized postpartum Haitian women.

| Characteristic | No. (%) |
|--|-------------|
| All women surveyed and included in analysis | 249 (100.0) |
| Age, y | |
| 18–24 | 96 (38.6) |
| 25–29 | 63 (25.3) |
| 30–34 | 44 (17.7) |
| 35–39 | 36 (14.5) |
| 40–44 | 10 (4.0) |
| Education | |
| None | 20 (8.0) |
| Some primary | 77 (30.9) |
| Some secondary | 141 (56.6) |
| Some higher | 11 (4.4) |
| People in household ^a | |
| ≤4 | 83 (33.5) |
| 5–8 | 136 (54.8) |
| >8 | 29 (11.7) |
| Socioeconomic status ^a | |
| 1st quintile (poorest) | 22 (11.2) |
| 2nd quintile | 38 (15.5) |
| 3rd quintile | 60 (24.5) |
| 4th quintile | 58 (23.7) |
| 5th quintile | 61 (25.3) |
| Relationship status | |
| Monogamous | 120 (48.2) |
| Partner has/may have other partners | 125 (50.2) |
| Not currently sexually active | 4 (1.6) |
| Parity | |
| 1 | 104 (41.8) |
| 2–3 | 95 (38.2) |
| ≥4 | 50 (20.1) |
| Ideal child spacing ^a | |
| <12 months | 1 (0.4) |
| 12–23 months | 36 (15.8) |
| 2–3 years | 26 (11.4) |
| >3 years | 165 (72.4) |
| Planned pregnancy (current) | |
| Yes | 125 (50.2) |
| No | 124 (49.8) |
| Desire for more children ^a | |
| Yes | 68 (27.4) |
| No/unsure | 180 (72.6) |
| Previous use of family planning | |
| Yes | 174 (69.9) |
| No | 75 (30.1) |
| Methods used ^b | |
| Abstinence | 8 (4.6) |
| Combined pills | 24 (13.7) |
| Progestin injection | 77 (44.0) |
| Male condom | 63 (36.0) |
| Intrauterine device | 0 (0.0) |
| Progestin implant | 4 (2.3) |
| Fertility awareness | 52 (29.7) |
| Lactational amenorrhea method | 9 (9.0) |
| Family planning discussed during current hospitalization | |
| Yes | 15 (6.0) |
| No | 234 (94.0) |
| Interest in discussing family planning before discharge ^c | |
| Yes | 229 (97.9) |
| No | 5 (2.1) |
| Planning to use family planning ^a | |
| Yes | 223 (90.0) |
| No/unsure | 25 (10.0) |
| Desire to choose a method before discharge ^a | |
| Yes | 198 (79.8) |
| No/unsure | 50 (20.2) |
| Multiparous women | 145 (100.0) |
| Birth spacing (current and previous) ^d | |
| <12 months | 19 (14.1) |
| 12–23 months | 21 (15.5) |
| 2–3 years | 20 (14.8) |
| >3 years | 75 (55.6) |
| Achieved ideal spacing ^d | |
| Yes | 59 (45.0) |
| No | 72 (55.0) |

Table 1 (continued)

| Characteristic | No. (%) |
|--|-----------|
| Attended postpartum visit after previous delivery ^d | |
| Yes | 88 (63.8) |
| No | 50 (36.2) |

^a Sample size <249 owing to missing data.^b Sample size >249 owing to multiple methods per participant accepted.^c n = 234 (women eligible to answer question).^d Sample size <145 owing to missing data.

health outcomes may be made by decreasing Haiti's unmet need for family planning.

Lack of contraceptive use by participants after their previous delivery was a significant risk factor for mistimed pregnancy. Several barriers to contraceptive use were highlighted. Patients' perception of their eligibility for family planning postpartum was affected by their concerns for method safety in breastfed infants. However, although breastfeeding is common in Haiti, exclusive breastfeeding is not—and decreases to 24% after 4 months [6]. At least three-quarters of women in Haiti return to sexual activity 4–6 months after delivery, leaving postpartum women vulnerable and at risk of unintended pregnancy [6].

The demand for family-planning knowledge and method initiation was high across all subgroups in the present postpartum population. Coupled with the substantial literature supporting adequate child spacing as a strategy for maternal mortality reduction, this indicates the importance of focusing an initiative on this population [7]. However, provider biases toward family-planning eligibility limit postpartum counseling and method provision. The majority of women who did not return for postpartum visits after previous deliveries reported the current pregnancy as mistimed. Delaying family-planning counseling and method provision until the postpartum visit is not as effective as providing services immediately postpartum [8].

The desire to limit childbearing or to space subsequent pregnancies by at least 3 years was expressed by most participants; this is consistent with results from Haiti's 2005 household survey, in which 67% of single-parity women expressed a desire to wait at least 2 years before their next pregnancy, and only 2% of women in the first year postpartum desired a subsequent birth within 2 years [6]. Demand for birth spacing is the most common reason for interest in family planning among married women, including young nulliparous women, participating in household surveys [9]. As reflected by the providers in the present study, family-planning programs often impose parity-based barriers on clients by limiting services provided [10]. All provider focus groups in the present study reported targeting for family-planning counseling women who had delivered 4 or more

Table 2
Predictors of mistimed pregnancies.^a

| Variable | Total (n = 72) | Unadjusted OR (95% CI) | Adjusted OR (95% CI) ^b |
|--|----------------|------------------------|-----------------------------------|
| Age, y | | | |
| 18–24 | 19/23 (82.6) | 1.0 | 2.2 (0.6–8.4) |
| 25–29 | 24/39 (61.5) | 0.3 (0.9–1.2) | 1.0 |
| 30–34 | 14/32 (43.8) | 0.2 (0.0–0.6) | 0.3 (0.1–0.9) |
| 35–39 | 11/28 (39.3) | 0.1 (0.0–0.5) | 0.28 (0.1–0.9) |
| 40–44 | 4/9 (44.4) | 0.2 (0.0–0.9) | 0.2 (0.0–0.9) |
| Family planning use after previous delivery | | | |
| Yes | 43/90 (47.8) | 1.0 | |
| No | 29/41 (70.7) | 2.6 (1.2–5.8) | 3.4 (1.3–9.1) |
| Partner supportive of family-planning use ^c | | | |
| Very supportive | 51/100 (51.0) | 1.0 | |
| Somewhat supportive | 3/5 (60.0) | 1.4 (0.2–8.9) | 1.7 (0.2–13.8) |
| Not supportive | 16/21 (76.2) | 3.1 (1.1–9.0) | 3.1 (0.9–10.0) |

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

^a Values are given as number (percentage) unless otherwise indicated.^b In addition to variables listed, education was included in the multivariate model as a demographic characteristic thought to influence outcome.^c n = 70 owing to missing data.

children, although nearly all groups reported smaller families as being the ideal.

The majority of survey participants reported an interest in discussing family planning before discharge from hospital; however, few actually received the relevant counseling. Providers expressed a lack of time/privacy and insufficient knowledge as barriers to service provision, thus indicating an area of focus to increase postpartum family-planning services in this setting. These barriers probably exist in other hospitals in the country because household surveys show that only 23% of Haitian women use a family-planning method in the first year postpartum [6].

The present study highlights the particularly vulnerable groups within the postpartum period: young women; women with 4 or more children; women who did not use family planning after their previous delivery; and women whose partners are not supportive. An effective postpartum family-planning intervention that includes comprehensive counseling and method provision for all patients would ensure that such groups are strategically targeted. Including families and partners in an education component addressing myths and fears may increase effective use of family planning.

The strengths of the present study were its contribution to the small body of literature addressing postpartum family planning in Haiti, its mixed-methodology approach, and the insight that it offers into the current standards of care and practice patterns for postpartum family-planning provision in a public teaching hospital in Haiti. The small sample size, convenience sample design, and restriction to women who delivered in an urban public hospital contribute to the study limitations.

The present study complements existing analyses of household survey data by providing specific information from women who were within the first week of delivery and receiving care in a setting in which a program could be implemented. Half of the women in Haiti live in a rural setting and 25% of deliveries countrywide take place in healthcare settings [2]. Therefore, programming suggestions were limited to an urban hospital setting. The patient demographics of the study population were similar to those in other urban centers in Haiti, and established urban healthcare settings are often the easiest in

which to implement new interventions. An intervention in such a setting to reduce unplanned and mistimed pregnancies could contribute to Haiti's efforts to attain the Millennium Development Goal on maternal health, which is to reduce the maternal mortality ratio by 75% by 2015 [11].

Conflict of interest

The authors have no conflicts of interest.

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