"Having Another Child Would Be a Life or Death Situation for Her": Understanding Pregnancy Termination Among Couples in Rural Bangladesh

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Objectives. We conducted a mixed-method study in rural southwestern Bangladesh, a country in which an estimated 730 000 elective pregnancy terminations occur each year, to explore women's and couples' motivations to terminate pregnancies.

Methods. Quantitative data derived from a 1998 cross-sectional survey and a longitudinal demographic surveillance system (1998–2003) were combined with qualitative data gathered through 84 in-depth interviews conducted with 19 couples during 2004–2005.

Results. Quantitative results indicated that 11% of couples reported a pregnancy termination in the study period; the rate was highest among couples who reported in 1998 that they wanted no more children (29%). Both wives' and husbands' fertility preferences independently and significantly predicted pregnancy termination. Qualitative findings showed that more than half of the participants had attempted to terminate a pregnancy at least once in their lifetime.

Conclusions. Our results highlight the importance of collecting data from both partners and the influence of husbands' fertility preferences on reproductive decisionmaking. The prevalence of reported pregnancy terminations in our population, along with the use of informal methods in termination attempts, highlights the need for continued provision of contraceptives and access to safe and affordable pregnancy termination services in this setting. (*Am J Public Health.* 2008;98:1827–1832. doi:10.2105/AJPH.2007.129262)

Globally, 20% of pregnancies are terminated via induced abortion each year.[1] In developing countries, most induced abortions are unsafe. They are performed by individuals without the necessary skills or in an environment that does not conform to minimum medical standards, or both.[1] Unsafe abortion is a significant public health concern, with an estimated 68 000 women dying every year and millions more suffering from abortion-related complications.[2]

In Bangladesh, 18% of all pregnancies are voluntarily terminated (730 000 terminations each year).[3] Induced abortion is illegal in Bangladesh except to save the life of the mother. However, menstrual regulation (MR), a procedure in which vacuum aspiration is used to evacuate the uterus during the first 12 weeks after a delayed menses, is not prohibited because it is considered to be an interim method of establishing nonpregnancy. The MR program in Bangladesh has existed since 1979, when the Bangladeshi Ministry of Health and Population Control trained government doctors and paramedics to provide MR services throughout the country. MR accounts for approximately two thirds of all voluntary pregnancy terminations in Bangladesh.[3–6]

Because MR services are provided by trained personnel, Bangladesh has lower hospitalization rates stemming from unsafe abortion than do many other developing countries.[3,7] However, despite the availability and relative safety of MR, unsafe abortions (e.g., abortions performed by untrained providers or by women themselves) still occur, and as a result more than 71 000 women are admitted to the hospital each year with MR- and abortion-related complications.[7,8]

It is estimated that 41% of Bangladesh's 138 million inhabitants are illiterate and that nearly one half of its population lives below the poverty line.[9,10] Bangladesh, a predominantly Muslim country, is characterized by patriarchal practices that include seclusion of women and restriction of their mobility. Such practices hinder women's educational and employment opportunities and leave them with limited societal roles beyond reproduction.[11]

Despite persistent poverty and stagnation with respect to several social development indicators, the total fertility rate in Bangladesh has declined from just under 7 children per woman in the 1970s to a current average of 3 children, with concurrent increases in contraceptive use.[10,12] Even with the decline in fertility, however, nearly one third of births are unintended (16% mistimed, 14% unwanted), and the current fertility rate still exceeds the calculated ideal family size of 2.3 children.[10]

Numerous studies have highlighted the continuing role of induced abortion and MR in regulating fertility.[3,13,14] An analysis conducted in the Matlab project area in Bangladesh showed that higher percentages of pregnancies were aborted in 1990 through 1995 than in 1984 through 1989.[13] However, as revealed in a recent analysis of Matlab data from 1976 to 2005, access to family planning and the availability of safe abortion services have led to steep declines in abortion-related mortality since 1990.[15]

Given the persistent role of pregnancy termination in regulating fertility, we sought to gain a more holistic understanding of reproductive decisionmaking by conducting a mixed-method study with couples residing in rural southwestern Bangladesh. We used quantitative surveillance data and in-depth interview data to examine the prevalence of pregnancy terminations as well as the contextual factors associated with decisions to terminate pregnancies.

METHODS

Quantitative Analyses

The quantitative data for this study were abstracted from the Sample Registration System (SRS), a demographic surveillance system operated by the International Centre for Health and Population Research in the Jessore district of southwestern Bangladesh. We extracted data for 3052 husband and wife couples who participated in the 1998 Combined Baseline Survey (CBS) and were part of the SRS from 1998 through 2003. Women (n=231) and men (n=71) who reported using a permanent contraceptive method, women who were pregnant at the time of the survey (n=187), and participants who reported that their spouse lived in a separate residence (n=3) were excluded from the analysis.

As a means of ascertaining pregnancy status, women were asked, during SRS quarterly surveillance visits, to report the date of their most recent menstrual period. Women who were determined to be fertile, to not be lactating, and to have had at least one missed period were considered to be pregnant. During our study period (1998–2003), there were a total of 1066 pregnancies among the study couples (Table 1). The outcome of each pregnancy was registered in subsequent quarterly surveillance visits.

To investigate factors associated with intentional pregnancy terminations, we gathered data on sociodemographic characteristics (wife's age, wife's education, family composition, and sum of household assets [e.g., owning such items as a fishnet, cart, and sewing machine]) from the women's 1998 CBS responses. The family composition variable was constructed according to the number and sex of children reported by the woman in the 1998 CBS. Categories for this variable were based on quantitative and qualitative data indicating that fertility preferences are determined by not only number but also sex of children.

Walking distance to the nearest health center, ascertained from husbands' survey responses, was used as a proxy for access to health services. Information on fertility preferences was gathered separately from husbands and wives in the 1998 CBS with the question, "Do you want to have any more children?" (We also conducted analyses including women's status variables and household structure [joint vs nuclear] in our analysis but found that these variables had no effects.)

We used cross-tabulations, the χ^2 test, and bivariate logistic regression to assess frequencies and relationships between pregnancy termination and the covariates of interest. We then used multivariate logistic regression to test the effects of the women's preferences on pregnancy termination, after we controlled for sociodemographic and household characteristics. A log-likelihood ratio test was conducted to assess whether the addition of the husband's preferences significantly improved the explanatory power of the model. All models accounted for possible clustering of responses at the administrative unit level (comprising approximately 20 000 people).

Qualitative Analyses

Qualitative data were collected during 84 semistructured, in-depth interviews conducted with 19 Muslim couples of reproductive age who participated in the 1998 CBS and were part of the SRS until September 30, 2004. Husbands and wives, selected according to their marital status and stated fertility preferences,[16] were interviewed separately and confidentially 2 or 3 times. Interviews were conducted in Bangla by same-gender Bangladeshi interviewers using a life history approach (interviewers asked informants to talk about several stages of their life chronologically rather than focusing on specific episodes or periods of time).

Interviews were digitally recorded, and transcripts were transcribed, translated, and then reviewed by J.D.G. NVivo software version 2 (QSR International, Cambridge, MA) was used in analyzing the interview data. A focused coding process was used in which phrases and concepts that appeared throughout the data were identified and combined into larger, overarching categories.[17] The categories pertaining to and including descriptions of pregnancy termination were reviewed by J.D.G. to highlight key themes and to identify narratives illustrating these themes.

RESULTS

Reported Levels and Methods of Pregnancy Termination

Table 1 presents data on pregnancy outcomes, including termination frequencies, according to husbands' and wives' fertility preferences (as reported in the 1998 CBS). Eighty percent of pregnancies resulted in live births, whereas 11% of pregnancies were terminated. The percentage of terminated pregnancies was lowest among couples in which both spouses reported wanting more

TABLE 1—Pregnancy Outcomes Among Study Couples, by Fertility Preferences: Rural Bangladesh, 1998–2003

Pregnancy Outcome	Both Husband and Wife Want More Children (n = 584), %	Neither Husband nor Wife Wants More Children (n = 319), %	Wife Wants More Children, Husband Does Not (n = 120), %	Husband Wants More Children, Wife Does Not (n = 43), %	Total Pregnancies (n = 1066), %
Live birth (including multiple births)	88	64	81	84	80
Non–live birth					
Induced abortion/pregnancy termination	2	29	6	7	11
Spontaneous miscarriage	8	5	7	7	7
Stillbirth	2	2	7	2	3

Note. Information on fertility preferences was gathered in 1998. Pregnancy outcomes were measured prospectively from 1998 to 2003. Column percentages may not total 100 because of rounding.

children (2%). The percentage of terminated pregnancies was higher among couples in which the wife wanted more children and the husband did not (6%) and couples in which the husband wanted more children and the wife did not (7%). Many more pregnancies (29%) were terminated by couples in which neither spouse reported wanting more children than by couples in the other categories.

More than half of the participants who completed the in-depth interviews had attempted to terminate at least 1 pregnancy in their lifetime. Many participants reported initial attempts to use informal or traditional methods to terminate a pregnancy, including allopathic or homeopathic medicines, plant roots, "bottles of yellow liquid" obtained from traditional healers, and oral contraceptives. Some women reported that after they had attempted one of these methods and it had failed, they would opt for another method:

> Once I felt movement in my womb, I went to the doctor with my mother-in-law. After some tests the doctor told me that I was 7 months' pregnant. I tried to take the child out from my womb. I spent 7 to 8 thousand taka [approximately $120] to buy different kinds of medicine to take it out. I took herbal medicine; whatever herbal medicine my neighbors told me to take, I did that. I also tried to go to the hospital to take it out, but my mother-in-law did not let me go. She told me that I would die if I aborted this mature baby. (21-year-old woman with 2 sons)

Several women reported that when faced with an unintended pregnancy they would initially turn to readily available, inexpensive methods such as ingesting plant roots or drinking hot salt water. When these techniques proved unsuccessful, however, they would seek out methods that they perceived as more effective but that were often more costly (e.g., clinic-based MR).

Influence of Family Members on Pregnancy Termination Decisionmaking

The cross-tabulations in Table 1 suggest that both husbands' and wives' 1998 fertility preferences were predictive of subsequent pregnancy terminations (i.e., during 1998–2003). Table 2 shows the results of the multivariate analyses. Model 1 indicates that, after we controlled for sociodemographic variables, women who reported in 1998 that they did not want to have any more children were more than 5 times as likely as women who reported that they did want another child to have a subsequent pregnancy termination (adjusted odds ratio [AOR]=5.25; 95% confidence interval [CI]=2.89, 9.55).

When husbands' fertility preferences were added (model 2), the explanatory power of the model improved (log-likelihood ratio $\chi^2=9.28$; $P=.002$). The inclusion of husbands' preferences somewhat attenuated the effect of wives' preferences; however, model 2 indicates that both wives' (AOR=4.25; 95% CI=2.26, 7.99) and husbands' (AOR=3.35; 95% CI=1.72, 6.54) preferences independently and significantly predicted subsequent pregnancy termination after control for sociodemographic characteristics.

During their interviews, women described the influence of their husbands in determining number and timing of children. Husbands were often integrally involved in the process of deciding whether to terminate a pregnancy, deciding where to obtain necessary services, and facilitating their wives' access to both traditional forms of pregnancy termination and clinic-based MR services. Women often relied on their husbands for permission to leave the house; moreover, husbands frequently accompanied their wives to health care visits, paid for the services provided, and negotiated with resistant family members to gain support for terminating the pregnancy:

> After my 3 daughters were born I told my husband that I did not want more babies. I was so weak. And we were poor. But he insisted on having a son. After this son I again got pregnant. When my menstruation stopped, I told my husband that I did not want more babies and that I wanted to wash my uterus ["washing of the uterus" refers to MR]. Then he said that he did not want any more babies, either. Then he gave me money and I went to the hospital to wash my uterus when I was 3 to 4 months' pregnant. (41-year-old woman with 1 son and 3 daughters)

The interviews conducted with the husbands and wives provided additional insight into the concerns of each spouse with respect to the pregnancy in question and its potential effects on their family. Furthermore, these interviews provided a unique opportunity to learn more about how the decision was made to resolve the pregnancy and who participated in the decision. For example, consider the following interview excerpt involving a 36-year-old wife with 2 sons and 1 daughter):

> *Wife:* When it came to my womb I was afraid; my first child was sick, and my second child was only 9 months old. When I asked my husband what we should do, he said, "It is not possible to have a child now. We have to wash this." Then we both went to the hospital and washed my womb.
> *Interviewer:* So who decides on this [terminating the pregnancy]?
> *Wife:* I tell my husband, then he manages everything. He will go with me to the hospital for the wash. Actually he always takes me. I never go anywhere alone except my father's house. In fact, in this topic we will both discuss it and decide together.

Her 37-year-old husband added his perspective in a separate interview:

> *Husband:* We did not know that she was pregnant. I was using methods [condom], but we didn't know how she got pregnant again. I took her to the doctor and he told her that she was pregnant. Then I talked with her.
> *Interviewer:* What did your wife say?
> *Husband:* She never speaks against my decision.
> *Interviewer:* So how did you decide that you would abort?
> *Husband:* She had gotten an operation [appendectomy] and was still thin. For that, I decided to abort that child. We went to the hospital and they washed the womb.

Similar to findings from this same population in a study of contraceptive use,[16] some women were both willing and able to act independently and reported that they would not inform their husbands of their intention to prevent or terminate a pregnancy. One of the female informants was particularly candid about not following her husband's wishes if she were to become pregnant again:

> If Allah gives us another child, I will not keep it. I will try to make my husband understand that we are poor. . . . What will we do with another baby? I will try to convince him to wash my uterus, and if he does not listen to me, I will not listen to him. I do not want any more children, and he does. If I conceive now, and my husband wants to keep it and does not listen to me, then I will certainly do MR without informing my husband. (30-year-old wife with 2 daughters)

Other women reported clandestine use of readily available pregnancy termination methods such as herbs, roots, and oral contraceptive pills. Several women commented that oral contraceptive pills, available in local pharmacies and government health clinics, could be ingested at a high dosage to induce an abortion without their husband's knowledge:

TABLE 2—Adjusted Odds of Pregnancy Termination Among Study Couples (n = 1066): Rural Bangladesh, 1998–2003

Sociodemographic Characteristics (1998)	Bivariate Model, Unadjusted OR (95% CI)	Multivariate Model 1, Adjusted OR (95% CI)	Multivariate Model 2, Adjusted OR (95% CI)
Wife's age, y			
<25 (Ref)	1.00	1.00	1.00
25–35	3.07† (1.99, 4.75)	1.25 (0.73, 2.13)	1.14 (0.67, 1.95)
>35	19.47† (10.94, 34.66)	4.92† (2.38, 10.17)	4.59† (2.19, 9.62)
Wife's educational level			
No education (Ref)	1.00	1.00	1.00
Any education (≥1 year)	0.73 (0.49, 1.07)	1.25 (0.74, 2.13)	1.29 (0.76, 2.21)
No. of household assets[a]			
0	1.00	1.00	1.00
1	1.09 (0.66, 1.81)	0.85 (0.50, 1.45)	0.84 (0.49, 1.43)
≥2	1.09 (0.68, 1.76)	1.35 (0.77, 2.36)	1.29 (0.73, 2.26)
Family composition (1998)			
<2 children, either male or female (Ref)	1.00	1.00	1.00
≥2 daughters and no sons	2.43** (1.14, 5.14)	0.80 (0.33, 1.92)	0.51 (0.20, 1.31)
≥2 children with at least 1 son	10.38† (6.36, 16.93)	1.99* (0.94, 4.23)	1.00 (0.41, 2.42)
Distance to nearest health center, min (access to services)			
0–5 (Ref)	1.00	1.00	1.00
6–10	1.16 (0.70, 1.93)	1.39 (0.74, 2.60)	1.35 (0.74, 2.48)
>10	0.48*** (0.30, 0.79)	0.54* (0.29, 1.03)	0.53** (0.28, 1.00)
Wife's fertility preferences			
Wants more children (Ref)	1.00	1.00	1.00
Does not want more children	11.41† (7.25, 17.95)	5.25† (2.89, 9.55)	4.25† (2.26, 7.99)
Husband's fertility preferences			
Wants more children (Ref)	1.00		1.00
Does not want more children	10.31† (6.29, 16.92)		3.35† (1.72, 6.54)
Log-likelihood		–281.04	–276.40
Log-likelihood ratio χ^2 [b]			9.28**

Note. OR = odds ratio; CI = confidence interval. Model 1 was controlled for sociodemographic characteristics and wives' fertility preferences. Model 2 was additionally controlled for husbands' fertility preferences.
[a]These included owning such items as a fishnet, cart, or sewing machine.
[b]Comparing models 1 and 2.
*$P \le .10$; **$P \le .05$; ***$P \le .01$; †$P \le .001$.

> If I conceive a baby again because of my irregularity in taking pills, then I may take it [the baby] out. My neighbor told me that if someone takes the red tablets [from the contraceptive pill package] regularly, then a baby comes out. So, I'll take the red ones regularly, and my husband will not know about the pregnancy. (33-year-old wife with 1 son and 1 daughter)

Situational Acceptance of Pregnancy Termination

Although many husbands and wives voiced their discomfort with terminating a pregnancy, because of personal or religious reasons, many believed that in certain circumstances it was justified and could prevent further harm to the woman and the family:

> People here do not like this [abortion]. As this is a Muslim country, people sometimes do not want to use contraception. Nowadays, some people agree with contraception, but they never like abortion. I also dislike abortion, but sometimes you have to do something even if you do not want to do it. (45-year-old husband with 4 sons)

Both our quantitative and qualitative data suggested that a wife's age had a strong influence on pregnancy termination decisions. Married women 35 years or older were more than 4 times as likely as married women younger than 25 years to terminate their pregnancy during the study period (AOR=4.59; 95% CI=2.19, 9.62). In the interviews, both husbands and wives described the stigma of becoming pregnant—and, particularly, of having another child—when their older children were nearing marital age. Older parents' childbearing was perceived to be detrimental to their children's marital prospects and extremely shameful if their older children were already married and of childbearing age.

Women's health and their ability to carry a pregnancy were also mentioned frequently in the interviews. There was particular concern regarding women who were recovering from a recent pregnancy. In addition, informants were acutely aware of the difficulties that pregnancy may pose for women with existing health conditions:

> If she were pregnant, then I would abort that child. I do not have any other choice. Her physical condition is bad; she had low [blood] pressure before having the third child [who subsequently died], and now she has high blood pressure. Having another child would be a life or death situation for her, so it would be better to abort. (40-year-old husband with 1 son and 1 daughter)

Acceptance of abortion also depended on how far the pregnancy had progressed. Similar to the concerns raised by the 21-year-old wife in the earlier excerpt, pregnancy terminations at advanced gestational ages were considered to be more dangerous and less socially acceptable. An unsuccessful initial attempt to abort prompted some women to reconsider, especially when they were faced with the decision of whether to terminate a more advanced pregnancy:

> So we went to the doctor and took medicine to abort the child, but that medicine didn't work. The doctor told us that we had to do a cesarean [referring to a surgical procedure] if we wanted to abort the child. We had no other way. But we didn't agree to do that, and my in-laws' family also told us to not do that. Then I talked to my wife and she said, "Let us give birth to the child, let's see what Allah will do." (36-year-old husband discussing a second pregnancy immediately after the birth of a first child)

However, terminations of early-term pregnancies were characterized differently. For example, according to a 41-year-old woman with 1 son and 3 daughters: "I washed my uterus when I was only 1 or 2 months' pregnant. So it was not a baby. I believe that if we wash our uterus when we are 1 or 2 months' pregnant it is not a sin."

DISCUSSION

Pregnancy terminations were prevalent in our sample, with 11% of all pregnancies terminated in the 5-year study period. Unlike cross-sectional surveys in which women are asked to recall and report on sensitive events such as pregnancy termination, SRS households were visited on a quarterly basis. Such longitudinal surveillance data collection methods likely reduce recall bias given that participants are followed over time and specifically queried as to their menstrual and pregnancy status at each visit. Even when longitudinal, quantitative data are available, however, gathering in-depth information on the various methods, terminology, and decisionmaking surrounding pregnancy termination necessitates the use of qualitative methods.

Descriptions of abortion attempts from our qualitative interviews indicate that quantitative estimates, which take into account only completed abortions, may severely underestimate individuals' and couples' desires to terminate an unwanted or mistimed pregnancy. Bangladeshi women may rely on untrained providers and unsafe methods (e.g., homeopathic tablets and syrups, insertion of roots into the vagina) for their initial abortion attempts because these methods are often less expensive and more confidential than other options; in addition, they may seek clinic-based services only once these initial attempts prove ineffective.[8,18]

Although the effects related to access to health care services were somewhat inconsistent, having to walk more than 10 minutes to a health facility was associated with lower odds of pregnancy termination, suggesting that the women in our sample may have faced barriers in accessing MR services. From a public health perspective, an understanding of the larger population of women who are actively attempting to terminate their pregnancies and are using informal and often ineffective methods to do so highlights the need for continued provision of contraceptives and access to safe and affordable MR services.

Pregnancy termination was particularly common among older women and couples who agreed that they did not want more children. From a programmatic perspective, this finding indicates that identifying older, reproductive-aged women and taking into account reports of fertility preferences may be effective in targeting family planning intervention efforts to the segments of the population most at risk for unintended pregnancies and subsequent pregnancy termination. From a research perspective, this result indicates the importance of ascertaining both husbands' and wives' fertility preferences. Reproductive health surveys have traditionally gathered fertility-related information only from women; however, our quantitative analysis indicated that fertility preferences of husbands and wives were independently and highly predictive of subsequent pregnancy terminations during the 5-year study period.

Our qualitative data also indicated that although some wives acted autonomously according to their fertility preferences, most engaged in joint decisionmaking with their husbands. Other studies conducted in Bangladesh have produced similar findings[18,19]; however, our couple narratives helped to illustrate how this decisionmaking process occurred and the factors involved in each spouse's decisionmaking. Although pregnancy terminations were common in our study population, the qualitative interviews illustrated the complexities and unique situations that precipitated the decision to terminate a pregnancy.

Overall, this study provides a more holistic understanding of pregnancy termination in rural Bangladesh. The prevalence of reported induced abortions in our sample, combined with the narratives of women who attempted unsuccessfully to terminate their pregnancies, indicates that unintended pregnancies and the resolution of these pregnancies continue to be salient issues in our study setting.

Efforts to ensure access to safe and effective contraceptive methods and MR services in Bangladesh are imperative, especially in light of evidence from other Bangladeshi studies demonstrating the importance of family planning in reducing maternal mortality[20] and child mortality[21] and the availability of safe MR services as a means of reducing abortion-related maternal mortality.[15] Our quantitative and qualitative data highlight the need to ascertain the perspectives of both men and women to gain a better understanding of how reproductive decisions, including those involving pregnancy termination, are negotiated and realized in this setting and others. ■

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Contributors

J.D. Gipson originated and conducted the study, contributed to the data analysis, and was the primary author of the article. M.J. Hindin originated the study and contributed to the writing of the article.

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Human Participant Protection

The institutional review boards of the Johns Hopkins Bloomberg School of Public Health and the International Centre for Health and Population Research approved this study. Participants provided verbal informed consent.

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Perspectives on Minority Participation in Health Studies

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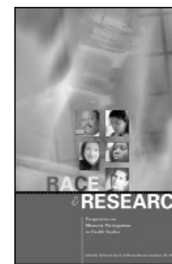

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