

MOHAMMAD AMIRUL ISLAM* - SABU S. PADMADAS*
PETER W.F. SMITH*

Understanding family planning communication between husbands and wives: a multilevel analysis of wives' responses from the Bangladesh DHS

1. INTRODUCTION

Family planning communication between husbands and wives is a prerequisite for better and responsible reproductive health behaviour (Becker, 1996; Davies, 1985; Chaudhury, 1978). Couples can make better reproductive decisions if they discuss family planning matters more openly and frequently (DeSilva, 1994). Whether to practice family planning or not, which methods to choose, when to start contraception, and the choices regarding the number and timing of children are all outcomes of inter-spousal communication (Feyisetan, 2000; Gage, 1995; Oyediran *et al.*, 2002a, 2002b). The frequency of inter-spousal communication is sometimes regarded as an indicator of safe family planning practice, where couples practice contraception appropriately and consistently without experiencing any side effects (Islam, 2008). Couples who discuss family planning matters are likely to discuss and understand the potential advantages and disadvantages of different contraceptive methods (Islam, 2008).

The overall contraceptive prevalence rate in Bangladesh is 58.1%; the most dominant FP method is oral pill (26.2%) and modern male-based methods constitute to 4.8% (NIPORT *et al.*, 2005). Bangladesh family planning programme acknowledges the need for increasing male participation in contraception, and increasing family planning communication between spouses has been one of the strategies of the national programme to increase the levels of modern method use (Islam, 2008). The aim of this research is to investigate the patterns and determinants of family planning communication between husbands and wives in Bangladesh using data from the Demographic and Health Survey (DHS).

2. BACKGROUND

Inter-spousal communication enables husbands and wives to know each other's attitudes toward family planning and contraceptive use. It allows them to

* University of Southampton, UK.

Corresponding author: Sabu S. Padmadas; e-mail : ssp@soton.ac.uk

voice their concerns about reproductive health matters, such as concerns about unintended pregnancies, side effects of a method or STDs (Drennan, 1998). Better communication between husbands and wives can also facilitate joint decision-making and balance gender roles in a family. Evidence show that women's unmet need for family planning could be significantly reduced by better and frequent communication between husbands and wives (Drennan, 1998). However, a study by DeRose et al. using DHS data from 21 sub-Saharan African countries contradicted the idea that discussion between partners helps increase knowledge of a partner's contraceptive attitudes (DeRose *et al.*, 2004). They concluded that the anticipated reductions in unmet need for contraception may not be achieved through improvements in inter-spousal communication.

Previous studies show that men and women who discuss family planning are more likely to use contraception effectively and have fewer children (Lasee and Becker, 1997; DeSilva, 1994). On the other hand, when men and women do not know their partners' fertility preference, attitudes towards family planning or contraceptive preference, the consequences are myriad ranging from unintended pregnancy outcomes, STD transmission and unsafe abortions (Biddlecom *et al.*, 1997; McGinn *et al.*, 1989; Salway, 1994). In some cultural settings where direct spousal communication is not an acceptable norm, partners may communicate their reproductive desires or concerns through nonverbal or indirect means if they need to do so at all (Fort, 1989). This is seen in Uganda where most reproductive health related communication between men and women were expressed through indirect hints, suggestions and even by talking to peers or relatives in the hope that they would convey the information to the sexual partner (Drennan, 1998).

Many obstacles prevent men and women from talking about sexuality, family planning and reproductive issues and a complex web of social and cultural factors hamper such discussions (Islam, 2008). In most societies, discussing sexual matters is a taboo subject for men and women. Also, men and women are often afraid of rejection by a sexual partner, especially if the discussion about sexuality takes place at the beginning of a relationship. Consequently, they may not feel comfortable discussing reproductive health issues, such as sexual history or contraception (Drennan, 1998). Also, men sometimes do not wish to discuss a subject about which they are less informed than their wives (Piotrow *et al.*, 1992). On the other hand, women's inferior position in the household and lack of negotiation power often limit couple communication from either side (Salway, 1994; Dixon-Muller, 1993; Worth, 1989). Furthermore, a husband might suspect his wife being promiscuous or unfaithful if she tries to discuss contraception with him (Fort, 1989). Even when men and women discuss family planning and reproductive health issues, it is not always on equal terms (Drennan, 1998).

It is unclear whether family planning discussion influences method use or whether method use initiates discussion of the topic; probably both propositions

are true (Robey and Drennan, 1998). Traditionally, discussing fertility and family planning related matters in Bangladesh is not culturally accepted (Kincaid *et al.*, 1993), and couples desiring to do so may be impeded by lack of privacy. If discussion does occur, it is not at the very beginning of a marriage, but after a significant period of time has passed, somewhere between five to ten years (Aziz and Maloney, 1985). Several studies conducted in other countries suggest that spousal communication about family planning usually begins only after the birth of one or two children (DeSilva, 1994; Fort, 1989). Because of the lack or absence of couple-communication about family planning, many wives believe that their husbands oppose family planning when in fact the husbands approve (Biddlecom *et al.*, 1997; McGinn *et al.*, 1989; Oni and McCarthy, 1991).

Couples in urban areas are generally more likely to talk about fertility desires than their rural counterparts (Drennan, 1998). Studies suggest that the closer a man and woman are in their levels of education, and more education they have, the more likely they are to discuss and use family planning (DeSilva, 1994; Coombs and Fernandez, 1978). A study on women in Togo showed that if a woman has some control over money then she is more likely to discuss family planning with her husband (Gage, 1995). Another study on Yoruba men found that older women participate more in family planning decision-making than their younger counterparts (Adewuyi and Ogunjuyigbe, 2003).

Inter-spousal communication can be regarded as a crucial step toward increasing men's participation in family planning and reproductive health (Lasee and Becker, 1997; Becker, 1996; Biddlecom *et al.*, 1997; Mahmood and Ringheim, 1997; Omondi-Odhiambo, 1997). Since both men and women play key roles in reproductive health, couple-communication is necessary for making responsible, healthy decisions, especially in a socio-cultural setting where informed choices are not available (Drennan, 1998). However, male involvement does not necessarily refer to use of male methods alone. It also includes supporting female method use which implies that husbands should communicate family planning matters with their wives (Donahoe, 1996).

Most studies that addressed inter-spousal communication regarding family planning and reproductive health issues have used survey responses. However, the use of retrospective survey data to assess spousal communication is not straight forward (Biddlecom *et al.*, 1997; Greene and Biddlecom, 1997). Communication is an on-going process, and surveys can only help to capture information from a cross-sectional point in time. They do not record the progression of a couple's discussion or decision-making (Lasee and Becker, 1997; Salway, 1994; Oni and McCarthy, 1991), unless the same individuals are observed over time. However, for countries such as Bangladesh, the DHSs are the only sources of information on inter-spousal communication. Although the most recently available DHS in Bangladesh collected data on inter-spousal family planning communication (NIPORT *et al.*, 2007), unfortunately, it did not collect data on a few explanatory variables which are deemed important from

the literature, for example, whether husband and wife approve of family planning, either jointly or one of the spouses. Hence, this research makes use of the couple dataset derived from the 1999-2000 DHS in Bangladesh to explore the extent of family planning communication between husbands and wives.

3. DATA

This study uses the couple dataset derived from the 1999-2000 Bangladesh Demographic and Health Survey, hereafter referred to as BDHS (NIPORT *et al.*, 2001). The couple dataset (N=2249) is generated by linking the spouses from the male dataset constituting a sample of 2556 currently married men aged 15-59 years and those from females which has a sample of 10,544 ever married women aged 10-49 years. The BDHS data is nationally representative two-stage sample and covers all the six administrative divisions. In urban strata the primary sampling units (PSUs) are mahallas and in rural strata these are mauzas. BDHS data are hierarchical data in which the individuals are nested into communities (PSUs) and communities are nested into divisions. The PSUs will be referred to as ‘communities’ in the detailed statistical analyses. Since the objective of BDHS was to provide separate estimates for each division as well as for urban and rural areas it was necessary to increase the sampling rate for Barisal and Sylhet divisions, so that the BDHS sample is not self weighting. It has to be noted that the sample weights for the men and women datasets are available separately but not for the couple dataset. Also, the analysis could not incorporate the complex survey design because it was not available for the couple dataset. The results reported are based on unweighted data.

4. METHODS

Two-level random intercept binary logistic regression models were fitted to identify the significant determinants of inter-spousal communication, taking into account of probable community level variation in the data. A significant community effect indicates that individuals from different communities with same set of characteristics will exhibit different influence on response variable (Goldstein, 2003).

The response variable was inter-spousal communication, coded 0 if husbands and wives never discussed family planning and 1 if they discussed family planning during the year preceding the survey. Data on family planning communication were collected only from wives. The response options in the survey were “never”, “once or twice” and “more often”. The advantage of using couple dataset is to control for husbands’ and couples’ characteristics associated with inter-spousal communication. The independent variables considered were different demographic (husband’s age, wife’s age, number of living children, marital

duration), socio-economic (husband's education, wife's education, husband's access to newspaper, husband's access to TV, husband's access to radio, wife's access to newspaper, wife's access to TV, wife's access to radio), attitudinal/behavioural (husband's approval of FP, wife's approval of FP, currently using FP) and spatial (area of residence, division) variables.

The variables significant (chi-square test; p -values are given) in the bi-variate analyses were considered for regression analyses. Most variables associated with individual spouse were based on individual spouse's response, except husband's approval of FP which was reported by the wife. All couple level variables (number of children, area of residence, division, current use of FP) showed concordance between spouses, except current use of FP. About 23.5% of the couples provided inconsistent report of contraception where husbands (65%) reporting higher CPR than wives (59.5%). Current FP use as reported by both the spouses had a significant association with the response variable. However, only husband's access to mass media was significantly associated with the response variable. To examine the impact of FP media campaign on couple communication we considered the husband's access to mass media variables and husband's report of current use of FP in the regression models. It was observed that wife's report of current use has similar effect in the modelling.

The selected socioeconomic, demographic, attitudinal and spatial variables in the regression models were screened for multicollinearity problems as well as confounding effects for some variables. Couple education was created based on responses from individual spouses to overcome multicollinearity problem. The variables significant at the 10% level were considered in the regression analyses. The spatial variables, division and area of residence, were considered in all regression models to control for the problems of over sampling in Barisal and Sylhet divisions. All possible interactions were considered. Regression results were presented and discussed in terms of odds ratio. Multilevel level analyses were carried out using MLwiN v2.0.

5. RESULTS

5.1 Bivariate analysis

Table 1 shows the percentage distribution of the couple's family planning communication pattern by selected characteristics of husbands, wives and couples. Overall, 50.4% of wives reported of having never discussed family planning with their husbands, 41.5% reported family planning communication once or twice and the remaining 8.1% reported frequent family planning communication with their husbands. Discussion of family planning matters with partner seems to decrease with the increase of husband's age. However, the decrease is not linear in nature. About 56.0% of the respondents

whose husbands belonging to the age group 15-19 reported discussing family planning matters. Almost similar results were evident for respondents with husbands aged less than 40 years. Couple communication decreased gradually when the husbands were aged more than 40 years and only 24.1% of the respondents whose husbands aged between 55-59 years reported having any family planning discussion. Similar relationship is evident between wives' ages and discussion of family planning, except for the early age groups. Inter-spousal family planning communication was the highest among the couples from Barisal division (57.3%) and the lowest in Sylhet division (35.8%). No significant association in inter-spousal communication is evident by area of (rural-urban) residence. The better the husbands are educated the greater the level of discussion with their partners. A similar relationship holds in the case of wives' education.

About 34.0% of couples with six or more children discussed family planning issues with their partners when compared to couples with no children (40.3%). On the other hand, couples with one or two children were found to discuss family planning more often. Discussion of family planning was high when the husband in a couple approved of family planning (55.9%). Similar results were evident when the wife in a couple approved of family planning. Couples currently using a FP method discussed family planning (57.4%) more than their non-user counterparts (35.2%). Marital duration had a negative relation with family planning discussion. A husband's access to newspaper and TV had significant association with couple's family planning communication, while a husband's access to radio had no significant association.

5.2 *Regression analyses*

Two-level random intercept binary logistic regression models were fitted to identify the factors that have significant impact on the inter-spousal communication regarding family planning. Table 2 shows the results from the multilevel logistic regression. The variable 'couple education' was constructed from husband's and wife's education because of the strong association between husband's and wife's education levels. We did not consider marital duration in the regression separately due to multicollinearity with husband's and wife's age.

Inter-spousal communication was significantly high among young husbands (less than 40 years) and young wives (less than 35 years). Husbands who have access to newspaper once a week had higher odds (OR=1.40) of family planning communication with their wives. The odds of couple communication were almost five times higher when husband approved of family planning compared to those who did not. A similar result was evident for wives' approval of family planning. The odds of family planning communication were significantly higher (OR=1.98) among current users when compared to their counterparts. Additionally, we explored the interaction between couple education and area of

Table 1 – *Inter-spousal communication by demographic and socio-economic characteristics of husbands, wives and couples, Bangladesh, 1999-2000*

Background characteristics	Discussion of FP with partner (%)			
	Total	Never	Once or twice	More often
<i>Husband's age (p=.0001)</i>				
15-19	16	43.8	56.3	0.0
20-24	110	42.7	48.2	9.1
25-29	295	43.4	46.4	10.2
30-34	366	44.8	43.7	11.5
35-39	458	42.1	49.8	8.1
40-44	363	50.4	41.3	8.3
45-49	304	57.2	35.5	7.2
50-54	195	66.7	29.7	3.6
55-59	141	75.9	22.0	2.1
<i>Wife's age (p=.0001)</i>				
10-14	36	58.3	36.1	5.6
15-19	311	46.3	44.7	9.0
20-24	401	42.4	46.6	11.0
25-29	455	41.5	48.4	10.1
30-34	397	49.6	43.1	7.3
35-39	276	52.9	39.1	8.0
40-44	222	67.1	30.6	2.3
45-49	150	78.0	18.7	3.3
<i>Division (p=.0001)</i>				
Barisal	199	42.7	46.2	11.1
Chittagong	389	54.8	39.6	5.7
Dhaka	582	48.6	41.4	10.0
Khulna	403	49.1	42.9	7.9
Rajshahi	460	47.0	45.0	8.0
Sylhet	215	64.2	31.2	4.6
<i>Area of residence (p=.207)</i>				
Urban	689	50.8	39.8	9.4
Rural	1559	50.2	42.3	7.4
<i>Husband's education (p=.0001)</i>				
No education	740	56.6	38.8	4.6
Primary	666	51.8	41.4	6.8
Secondary	529	45.6	44.4	10.0
Higher	313	40.9	43.5	15.7
<i>Wife's education (p=.0001)</i>				
No education	951	58.4	37.6	4.0
Primary	641	48.8	43.4	7.8
Secondary	526	41.8	45.6	12.5
Higher	130	34.6	44.6	20.8

...Cont'd...

Table 1 - *Cont'd*

Background characteristics	Discussion of FP with partner (%)			
	Total	Never	Once or twice	More often
<i>No. of living children (p=.0001)</i>				
0	201	59.7	31.3	9.0
1	415	40.5	47.5	12.0
2	523	45.7	44.9	9.4
3	410	50.2	42.0	7.8
4	290	54.1	40.3	5.5
5	203	52.7	43.3	3.9
6+	206	66.0	30.1	3.9
<i>Husband approves FP (p=.0001)</i>				
Disapproves	244	82.8	15.6	1.6
Approves	1907	44.1	46.6	9.3
Don't know	96	93.8	6.3	0.0
<i>Wife approves FP (p=.0001)</i>				
Disapproves	120	90.0	10.0	0.0
Approves	2128	48.2	43.3	8.5
<i>Currently using FP (p=.0001)</i>				
Yes	1460	42.6	47.5	9.9
No	788	64.8	30.6	4.6
<i>Marital duration (years) (p=.0001)</i>				
<5	391	43.0	45.3	11.8
5-10	473	43.8	45.2	11.0
11 and above	1384	54.8	39.2	6.0
<i>Husbands' access to newspaper (p=.0001)</i>				
Yes	662	43.2	43.7	13.1
No	1586	53.4	40.7	5.9
<i>Husbands' access to TV (p=.0001)</i>				
Yes	1252	46.7	42.8	10.5
No	996	55.0	40.0	5.0
<i>Husbands' access to radio (p=.112)</i>				
Yes	1168	48.3	43.4	8.3
No	1080	52.7	39.5	7.8
Total (%)		50.4	41.5	8.1

Note: Rows sum to 100%. Since there one or two missing values none of the counts sums to 2249 across the categories of each variable. *p* values are based on chi-square tests.

Table 2 – Odds ratios from two-level random intercept binary logistic regression estimates of the effect of different socio-economic and demographic characteristics on inter-spousal communication

Variables	OR	[95% CI]
Intercept [‡]	0.05 ^{***}	[0.02, 0.10]
<i>Age of husband (r: 40 and above)</i>		
Less than 25	2.03 ^{***}	[1.20, 3.45]
25-39	1.66 ^{***}	[1.28, 2.16]
<i>Age of wife (r: 35 and above)</i>		
Less than 20	2.04 ^{***}	[1.33, 3.12]
20-34	2.11 ^{***}	[1.61, 2.76]
<i>Division (r: Sylhet)</i>		
Barisal	1.46	[0.90, 2.37]
Chittagong	1.07	[0.70, 1.64]
Dhaka	1.29	[0.87, 1.91]
Khulna	1.11	[0.73, 1.70]
Rajshahi	1.29	[0.85, 1.94]
<i>Area of residence (r: Rural)</i>		
Urban	0.33 ^{***}	[0.18, 0.62]
<i>Couple education (r: Both educated)</i>		
Both uneducated	0.61 ^{***}	[0.45, 0.83]
Only husband educated	0.61 ^{***}	[0.45, 0.82]
Only wife educated	0.64 ^{**}	[0.43, 0.94]
<i>Husband's access to newspaper (r: No)</i>		
Yes	1.40 ^{***}	[1.09, 1.79]
<i>Husband approves FP (r: No)</i>		
Yes	5.31 ^{***}	[3.70, 7.62]
<i>Wife approves FP (r: No)</i>		
Yes	2.45 ^{**}	[1.23, 4.91]
<i>Currently using FP[†] (r: No)</i>		
Yes	1.98 ^{***}	[1.60, 2.44]
<i>Number of living children (r: 5 and more)</i>		
0	0.36 ^{***}	[0.20, 0.63]
1-2	0.57 ^{***}	[0.39, 0.82]
3-4	0.61 ^{***}	[0.43, 0.85]

...Cont'd...

Table 2 - *Cont'd*

Variables	OR	[95% CI]
Interaction [‡]		
Urban * no children	1.58	[0.66, 3.74]
Urban * 1-2 children	2.09**	[1.10, 3.96]
Urban * 3-4 children	2.05**	[1.06, 3.98]
Urban * both uneducated	1.81**	[1.00, 3.28]
Urban * only husband educated	1.36	[0.76, 2.46]
Urban * only wife educated	1.72	[0.86, 3.44]
Random effect variance [§]	.136**	.065

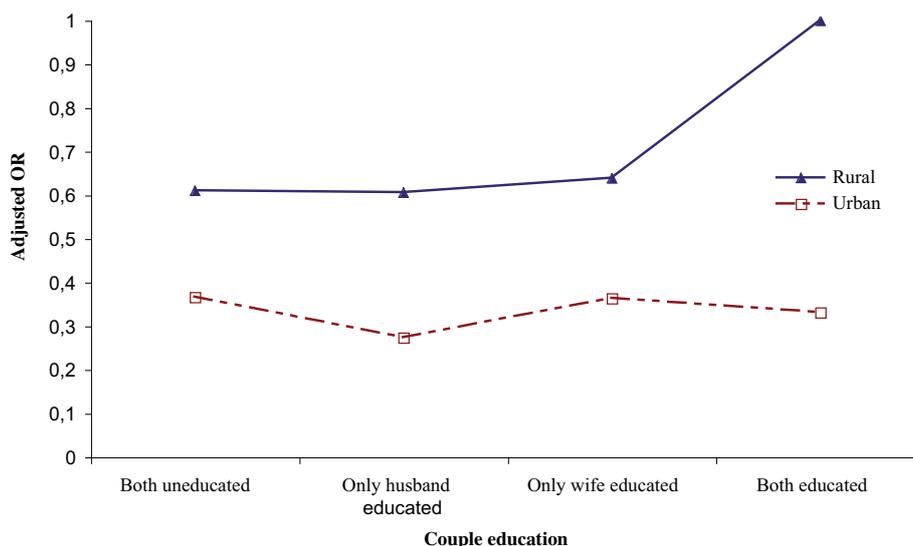
Note: Level of Significance: * $p < .10$, ** $p < .05$, *** $p < .01$. SE= Standard Error; NA=not considered in the model; r = reference category. OR=Odds ratio; CI=Confidence Interval; ‡Odds; †Ratio of ORs; §Coefficient plus SE. †as reported by husbands.

residence. The results were statistically significant (Table 2; Figure 1). The adjusted odds ratios plotted in Figure 1 suggest that the odds of family planning communication were the same for rural couple when both the partners were uneducated and only husband was educated. The odds tend to increase slightly for the category which represents that only wife was educated and substantially higher if both the partners residing in rural areas were educated. The results are less striking for urban couples. Significant interaction effects were also found between number of living children and area of residence (Table 2; Figure 2). As the number of children increases the odds of family planning communication for rural couples increases, which demonstrates a sharp increase if the couple have five or more living children. A similar pattern was evident for urban couples having up to three to four living children, which decreased for couples with five and more children. Community level variation was significant.

6. DISCUSSION

The foregoing analyses showed that about one-half of the Bangladeshi couples had not discussed family planning and in most of the cases the frequency of discussion was limited to once or twice in the past year. This suggests that many couples in Bangladesh do not share their ideas and opinion regarding their contraceptive choices and reproductive preferences. In addition, the present analysis demonstrates evidence of significant community

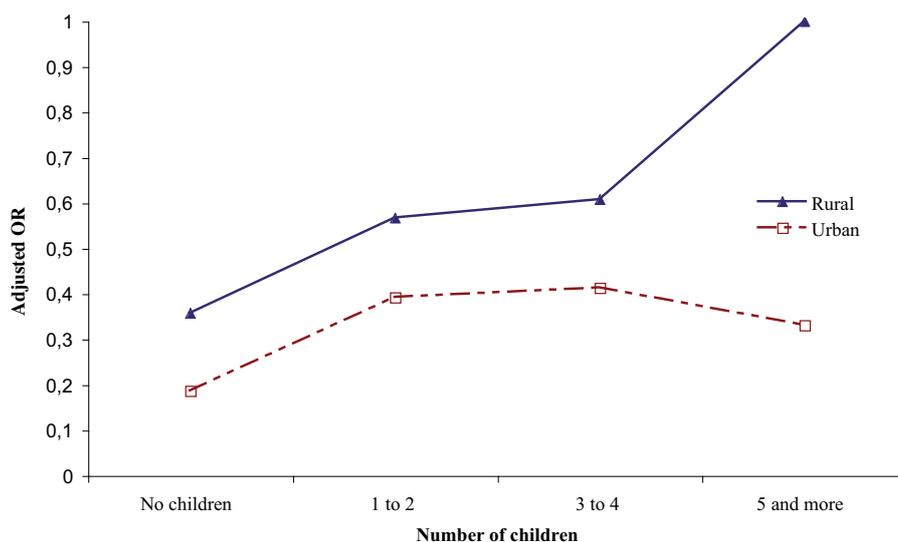
Figure 1 – Interaction effect between couple education and area of residence on inter-spousal communication



level variations in family planning communication. These indicate that inter-spousal communication has not been established as an expected cultural behaviour throughout the country.

Inter-spousal communication was found to be high among couples who had more living children, where both the spouses were educated, both approved of family planning, they were currently using family planning and when the husband had access to newspapers. All of these findings are supportive of previous studies. The bivariate results showed that couples who had spent less time (less than 11 years) in marital relationship discuss family planning more often than their counterparts. This contradicts with the findings from previous research (Aziz and Maloney, 1985). In the Bangladeshi context, young and newly wed couples explore different options of reversible contraceptive methods, which require more couple communication and gradually as they spent more time in conjugal life they settle with a specific method which is more efficient and durable and consequently the frequency of discussion may fall among older couples. As expected, in a separate model that controlled for age suggest that younger couples with husbands aged less than 40 years and wives aged less than 35 years were more likely to discuss FP. The findings in this paper reflect inherent relationships between inter-spousal communication and the socio-economic and demographic background of the respondents. Inter-spousal communication appears to be relatively weaker in urban areas than in rural areas. This could be

Figure 2 – *Interaction effect between number of children and area of residence on inter-spousal communication*



attributed to differences in reporting behaviour of wives in rural and urban areas. This observation cannot be inferred directly from the results due to limited data. Better access to mass media seems to facilitate inter-spousal communication. Couples with more children had better family planning communication than their counterparts which is the result of presumably longer time spent in marital unions and hence better understanding between husband and wife. Unfortunately, the DHSs do not collect any data on the content of FP discussion (Lasee and Becker, 1997; Salway, 1994; Oni and McCarthy, 1991), which restricts the scope of the analysis on couple communication. Qualitative data are needed to understand the effectiveness of FP communication and their subsequent influence on contraceptive behaviour.

Inter-spousal family planning communication is an effective strategy to minimize differences of opinion between husbands and wives regarding family planning method choice and other reproductive preferences. In Bangladesh where family planning and reproductive health programmes are still women-oriented, facilitating better communication between spouses alone can motivate particularly husbands towards a better and responsible family planning and reproductive health practice. Although it is beyond the scope of this paper, further data investigations show that frequent family planning communication between husbands and wives has a positive influence on method choices, particularly male methods (Islam, 2008). Frequent inter-spousal communication

enables husbands to get involved indirectly with the ongoing programme efforts. Reproductive health programmes in Bangladesh should aim to encourage couples for better family planning communication in order to ensure better reproductive decisions and family planning practice, particularly targeting couples from poor communities.

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