

Traditional Roles, Modern Behavior: Intergenerational Intervention and Contraception in Rural Bangladesh

Akiko Nosaka and Radheshyam Bairagi

Although rural Bangladesh retains many traditional socioeconomic characteristics, the use of contraceptives has increased over the past three decades. This paper examines the influence a mother-in-law has on her young daughter-in-law's use of contraceptives in the rural community of Matlab, Bangladesh. The study uses data from 413 interviews conducted in two areas of the community with different family planning programs, which have affected differing levels of contraceptive prevalence. Results demonstrate that the mother-in-law does influence the daughter-in-law's use of contraceptives, particularly in social contexts where they are relatively limited in availability. This finding has important implications for enhancing the effectiveness of family planning programs in many areas of the developing world.

Key words: South Asia, Bangladesh, intergenerational relationship, women, fertility, contraception

Introduction

The Bangladeshi family planning programs that began during the 1970s have led to the widespread use of modern contraceptives by women of reproductive age resulting in a remarkable fertility decline (Cleland et al. 1994:1-2; Islam and Islam 1993:3). This drastic reproductive transition is relatively unexpected considering Bangladesh maintains a traditional social organization and is one of the least developed, predominantly rural, and poverty-stricken countries in the world. In addition, most of its people have a minimal level of education, and women generally have a

lower socioeconomic status than men.¹ These characteristics are typically associated with high fertility (Freedman 1995:13).

This study focuses on the intergenerational relationships among women in two distinct zones of Matlab, a rural community in Bangladesh.² Specifically, it examines whether mothers-in-law influence their daughters-in-law's use of modern contraceptives, and if so, how such influence is exerted. For the purposes of this discussion, we define influence as the ability to regulate other people and to place them in a dependent position (Bourque and Warren 1981:55; Dubisch 1986:16). Modern contraceptives used by the study subjects included pills, condoms, injectables, IUD, tubectomy, and vasectomy.

Since 1973, some of the residents of Matlab have been subjected to an intensive family planning program administered by the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B). The ICDDR,B is an independent, non-profit institution supported by the Bangladeshi government and several other countries and international agencies. Households subject to this intensive program are situated in the *treatment area*, and they are associated with an exceptionally high prevalence of contraceptive use. In contrast, the adjacent *comparison area* has a markedly lower prevalence of contraceptive use, due in part to a less intensive government sponsored family planning program. Comparing the behavior in both areas is important for examining modern contraceptive practices in traditional societies, and the potential for increasing their use in high fertility social settings.

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The policy implications of this study are relevant to areas where population control is a serious concern and funds for family planning are relatively limited. Particularly, when people suffer from poverty, having many children will not only aggravate their economic situation, but it will also endanger the survival, health, and well-being of their children if the family cannot provision them sufficiently with food, health care, and education. In such cases, having fewer children is advantageous. In traditional communities where older people continue to be influential, intergenerational relationships such as those between a mother-in-law and her daughter-in-law may provide a means for implementing a greater degree of fertility reduction. Understanding the dynamics of this particular intergenerational relationship can potentially aid in the formation of less costly and more effective family planning programs, not only in Bangladesh, but also in other rural areas of the developing world.

The following discussion is divided into five sections. The first section discusses the social characteristics associated with the Matlab community. The second section describes the traditional, ideal characteristics of the mother-in-law/daughter-in-law relationship in rural Bangladesh. The third methodological section outlines the differences between the family planning programs in Matlab's treatment and comparison areas. It also reviews how the sample was selected, the study hypotheses and variables, and how the variables were measured and coded. The fourth section summarizes the results of the probit analyses used to evaluate the data. The final section considers the implications the study has for enhancing the effectiveness of family planning programs in Bangladesh and other traditional communities where fertility rates are dangerously high.

Background

Matlab is a relatively isolated and inaccessible sub-district of Bangladesh located about 50 kilometers southeast of the country's capital city of Dhaka. Although the capital is a large urban center tied to the global market, the economies of many rural sub-districts like Matlab are relatively local. In general, Matlab is typical of most of the Bangladeshi countryside, with an economy largely based on agriculture, although fishing is important in some villages (Aziz 1994:14). Most farmers own little land and produce only a limited surplus, so many households suffer from food scarcity, especially just prior to harvest season (Bhuiya and Streatfield 1991:254). Most landless people make ends meet by doing agricultural labor, but these employment opportunities vary seasonally. The Matlab market is also an important source of livelihood for some citizens, although opportunities are temporary and intermittent. The market provides jobs such as rickshaw pullers, boatmen, carpenters, barbers, factory workers, and vendors. In addition, some people are now migrating to larger communities to find employment in construction, factories, or household service work. These people occasionally return to visit their family members and give them a portion of their meager earnings.

While most of the people are poor, there are a few local elites who own relatively large tracts of agricultural land. Other well-to-do people include wealthy merchants and employees of the ICDDR,B, the government, banks, and schools. It is important to point out, however, that even though these elite families are wealthy in comparison to their lower-class counterparts, in many cases their resources including land and inherited capital are barely enough to support the household and maintain their elite status.

These generally poor characteristics associated with rural Bangladeshi communities like Matlab, and the fact that many of them remain relatively isolated from the outside world, are precisely what makes the country's recent fertility revolution so noteworthy. Population control is a serious issue to which the Bangladeshi people have overwhelmingly responded by adopting the use of modern contraceptives. It is still necessary, however, to explore how family planning programs in Bangladesh can achieve even greater effectiveness. This study targets this issue by looking at the traditional interactions characterizing the mother-in-law/daughter-in-law relationship.

Relationship between Mother-in-law and Daughter-in-law³

The lives of rural Bangladeshi women like those in Matlab continue to be regulated by traditional institutions such as virilocality, sexual division of labor, and *purdah*, a social tradition that shields women from the public sphere. In accordance with a virilocal residential pattern, a woman usually forfeits the security of her natal family by moving to her husband's household at marriage. Thereafter, she is socially immersed in her husband's *bari*, a household compound typically shared by the nuclear families of extended patrilineal kin groups (Cain, Khanam, and Nahar 1979:408).

An adherence to a rigid traditional framework distinguishing male and female roles, and the institution of *purdah*, confine most young women to the immediate vicinity of their *baris* where they perform the household's basic domestic activities (Amin and Mariam 1987:221; Arthur and McNicoll 1978:25). Strict observation of *purdah* reduces a woman's mobility and visibility and comes with the expectation that she be obedient and refrain from expressing her opinions and desires (Aziz and Maloney 1985:62-68). A proper young wife, therefore, is passive, submissive (Kabeer 1988:101-102), and rarely involved in the household decision-making process (Chowdhury 1995:38). Instead, she works diligently, satisfies the wishes of her new family members, especially her mother-in-law who constantly evaluates her behavior (Ellickson 1988:59; Feldman and McCarthy 1983:952), and obeys the directives of her husband (Aziz and Maloney 1985:62-68). Traditionally, her mother-in-law maintains a strong, absolute measure of authority over her behavior when she is young (Aziz 1979:52; Ellickson 1988:64; Foner 1984:77). This is particularly true when her mother-in-law's husband is still alive.

A daughter-in-law is usually responsible for all household chores including meal preparation, sweeping rooms and patios, and washing clothes, although her mother-in-law may help on a voluntary basis. She is also expected to bear children, especially sons (Nosaka 2000:486-487). Traditionally, there is a strong preference for sons because they will ensure the perpetuity of the family name and support the family economically when they are adults (see Chowdhury and Bairagi 1990; Mannan 1989; Rahman and DaVanzo 1993; Rahman et al. 1992). By bearing sons, therefore, a woman can establish a successful position of respect in her husband's household (Nosaka and Andrews 2004:156). Sons will bring her mother-in-law status in the future and represent a source of economic insurance that she will need when her husband becomes frail or dies (Cain 1993:45).

The relationship between a mother-in-law and her daughter-in-law usually changes as the latter gains experience in the household and bears her own children (Nosaka and Andrews 2004:157-160). Indeed, as time goes on a mother-in-law may become dependent on her daughter-in-law, especially if and when she becomes frail and in need of physical assistance (Maxwell 1986:81). Moreover, a mother-in-law will lose her status as spouse of the household head when her husband dies. In most cases, her son will take charge of the household and his wife will inherit the status of spouse of the household head. At this time, a mother-in-law also becomes formally dependent of the economic wherewithal of her son(s) (Elickson 1988:67; Rahman 1993:28). The death of her husband does not completely nullify her power and influence, but it certainly undermines the potency of her household authority (Cain, Khanam, and Nahar 1979:423).

While the social structure in rural Bangladesh remains largely traditional, increasingly more married women of reproductive age have begun to use modern contraceptives. It is meaningful to examine how this modern incursion articulates with customary family relationships. This must be examined by looking at young reproductively active women whose behavior is greatly influenced by their mothers-in-law. For this reason we focus on mother-in-law/young daughter-in-law dyads.

Methodology

Data Sources

This study is based on data collected from the treatment and comparison areas of Matlab in 1995 and 1996. The ICDDR,B maintains an extremely intensive family planning program in the treatment area. This program is structured around the use of village-level female workers called Community Health Workers (CHWs) who are hired and trained by the ICDDR,B to introduce the use of modern contraceptives, to teach the advantages of small family size and well-spaced births, and to motivate their clients to continue using contraceptives. The CHWs visit the households assigned to them once every 15 days, providing family planning services and

giving advice about maternal health and childcare. All of the available types of contraceptives are free of cost. Clients receive in-home services for birth control pills, condoms, foam tablets, injectable contraceptives, clinical services for IUDs, and sterilization (Fauveau and Chakraborty 1994:90-92; Nag 1992:3-4). This intensive ICDDR,B program requires a relatively high level of funding.

In contrast, a less intensive family planning program in the comparison area is regulated by the Bangladeshi government, which also provides free contraceptive services. It is structured around the use of female Family Welfare Assistants (FWAs) who periodically distribute pills, condoms, and foam tablets (Nag 1992:5). These assistants visit the households they are assigned to once every three months. The insertion of IUDs and other health services including sterilization and menstrual regulation can be acquired from the union-based health and family welfare center. Moreover, the injectable *depo-provera* contraceptive introduced in 1978 is administered in any health facility throughout the region, although its use remains extremely limited (Nag 1992:5). Besides the services provided by the government, pills and condoms are also readily available from pharmacies and shops (Larson and Mitra 1992:124).

The retail costs of contraceptives are very low in Bangladesh. In 1992, the average price for a condom was about 0.2 taka (around 0.5 cents in United States currency) and a single cycle of pills one taka (Ciszewski and Harvey 1995:151). Compared to women in the treatment area, those in the comparison area are more likely to use pills (Koenig et al. 1994:288).⁴ This variation may reflect the difference in the types of in-home services available in both areas (Campbell 2006:242).

To emphasize, the fertility behavior in the treatment area differs from that in the comparison area. In 1977, the prevalence of modern contraceptive use in both areas was only five percent. In 1990, however, the rate in the treatment area had risen to almost 60 percent, whereas in the comparison area it had risen to only 30 percent (Cleland et al. 1994:95). Considering Bangladeshi communities with similar socioeconomic characteristics, the prevalence of modern contraceptives in the treatment area is exceptionally high (Nag 1992:1).⁵

This study is based on a sample of 273 mother-in-law/daughter-in-law pairs from the treatment area and 140 from the comparison area. Each mother-in-law and daughter-in-law pair resided in the same household, and all daughters-in-law were 30 years of age or younger. Women typically marry between the ages of 18 and 19 years in the Matlab area (Aziz and Maloney 1985:76; Mostafa et al. 1996:48). Wives older than 30 were excluded, therefore, because they are no longer inexperienced, having established their own positions in their respective households (Nosaka and Andrews 2004:156-157). These sampling criteria insured the selection of daughters-in-law under significant levels of mother-in-law influence.

Data were mainly collected with questionnaire interviews conducted by two female field assistants. These assistants were trained in the interview process prior to carrying out the fieldwork. Each interview took place during the day in the

Table 1. Frequencies of Variables According to Residential Area

Variables	Treatment Area (n=273)	Comparison Area (n = 140)
1) Daughter-in-law's Contraceptive Use		
0: not currently using	140 (51.3%)	99 (70.7%)
1: currently using	133 (48.7%)	41 (29.3%)
2) Mother-in-law's Attitude toward Modern Contraceptives		
0: not positive	97 (35.5%)	57 (40.7%)
1: fairly positive	78 (28.6%)	43 (30.7%)
2: strongly positive	98 (35.9%)	40 (28.6%)
3) Mother-in-law's Experience with Modern Contraceptives		
0: no experience	162 (59.3%)	118 (84.3%)
1: experience	111 (40.7%)	22 (15.7%)
4) Mother-in-law's View on Additional Children		
Case-1: no human intervention	33 (12.1%)	14 (10%)
Case-2: respect for younger generation's decisions	43 (15.8%)	27 (19.3%)
Case-3a: no additional children preferred	13 (4.8%)	24 (17.1%)
Case-3b: at least one additional child preferred	184 (67.4%)	75 (53.6%)
5) Father-in-law's Presence		
0: absent	109 (39.9%)	56 (40%)
1: present	164 (60.1%)	84 (60%)
6) Husband's Attitude toward Contraception		
0: not positive	47 (17.2%)	35 (25%)
1: positive	226 (82.8%)	105 (75%)
7) Number of Surviving Children		
0	62 (22.7%)	24 (17.1%)
1	129 (47.3%)	50 (35.7%)
2	53 (19.4%)	48 (34.3%)
3	27 (9.9%)	13 (9.3%)
4 or more	2 (0.7%)	5 (3.6%)
8) Child Death Experience		
0: no experience	261 (95.6%)	124 (88.6%)
1: experience	12 (4.4%)	16 (11.4%)
9) Daughter-in-law's Educational Level		
0: no formal education	65 (23.8%)	45 (32.1%)
1: 1-5 years (the primary school level)	121 (44.3%)	60 (42.9%)
2: 6-9 years (the secondary school level)	75 (27.5%)	32 (22.9%)
3: more than 9 years	12 (4.4%)	3 (2.1%)
10) House Type		
0	33 (12.1%)	5 (3.6%)
1	205 (75.1%)	81 (57.9%)
2	35 (12.8%)	54 (38.6%)
11) Husband's Occupation		
0	7 (2.6%)	2 (1.4%)
1	30 (11.0%)	21 (15.0%)
2	132 (48.4%)	25 (17.9%)
3	104 (38.1%)	92 (65.7%)

bari of the interviewees; these sessions were only conducted if both the daughter-in-law and her mother-in-law in the target sample were simultaneously present in the bari. They were, however, interviewed in separate locations of the bari to help ensure the acquisition of objective responses free from third

party influence. Although some women were focused only on answering the questions, many of them were also doing household activities such as cooking or nursing at the time.

During data collection, there were cases of interview noncompliance. Some women either simply refused or had

husbands who would not permit them to be interviewed. Also, some women were incapable of answering questions because they were either physically or mentally ill. Moreover, there were a number of women who were absent from their baris when interviews were attempted. Within several weeks to a few months later, the field assistants revisited those baris with the interviewees that were physically ill or absent during the first visit. If the revisit also proved unsuccessful, no further attempts were made to interview these target subjects.⁶

Hypotheses

Three hypotheses are examined in this study. The first two include (1) a mother-in-law's positive attitude toward modern contraceptives will positively influence her daughter-in-law's contraceptive use, and (2) a mother-in-law who has used modern contraceptives is also more likely to have a daughter-in-law who is using them. These hypotheses address the mother-in-law's general attitude toward and experience with contraceptives. A daughter-in-law whose mother-in-law appreciates the benefits of contraceptive use (i.e., wide birth spacing) is more likely to be a contraceptive.

The third hypothesis is (3) a mother-in-law's general perspective on whether her daughter-in-law should have additional children will influence the latter's use of contraceptives. If a mother-in-law does not believe in the conscious regulation of conception, she may not encourage her daughter-in-law to use them. Alternatively, if a mother-in-law respects the fertility preferences of the younger generation, she may support her daughter-in-law's decision to use them. Finally, a mother-in-law who wants additional grandchildren is more likely to discourage her daughter-in-law's contraceptive use.

Variables

Eleven variables are accounted for in this study (Table 1). *The daughter-in-law's current use of modern contraceptives* was the dependent variable; it was determined by asking a daughter-in-law whether she was currently using any modern contraceptives. Three variables were independent. The first one assessed *the mother-in-law's attitude toward modern contraceptives*.⁷ It was quantified with three numeric categories (0, 1, or 2) based on whether she supported her daughter-in-law's contraceptive use and whether she preferred that her daughter-in-law use a particular method: the higher the score, the more positive the attitude.

The second independent variable assessed *the mother-in-law's experience with modern contraceptives*; it was quantified according to whether she was a previous or current contraceptive. The third independent variable assessed *the mother-in-law's view on whether her daughter-in-law should have additional children*; mothers-in-law were classified into three categories (case-1, case-2, or case-3) based on their responses to questions addressing this issue.⁸ Case-1 and case-2 were qualitatively distinct non-numerical answers. Case-1 included responses such as "It is up to God" or "I do

Table 2. Classification of House Type

Score	Roof	Wall
2	Brick/Concrete Tin	Brick Tin
1	Tin	Bamboo Jute/Mixed
0	Straw/Bamboo Mixed (Tin, Straw/Other)	Jute/Straw/Thatch/Bamboo Mixed (Tin, Straw/Thatch)
	No residence Residing in other house	

not know," reflecting limited support or belief in the conscious control (no human intervention) of fertility behavior, whereas case-2 included responses such as "It is up to my son and/or daughter-in-law," implying a general respect for the younger generation's fertility decisions. Case-3 included numerical answers categorized as either "wanting" (3a) or "not wanting" (3b) her daughter-in-law to have additional children.

The analysis accounted for seven control variables. A variable for *the father-in-law's presence* was included because his wife's position in the family is likely to change at his death. Moreover, *the husband's attitude toward contraception* might be important because he could influence his wife's behavior more than her mother-in-law (Khan 1996).⁹ In addition, two variables exploring a woman's child survival were addressed; these variables include *the number of her surviving children* (see Kamal 1996; Khan 1996; Ullah and Chakraborty 1993), and whether she had undergone a *child death experience* (see Chowdhury, Fauveau, and Aziz 1992; Cleland et al. 1994).¹⁰ *A daughter-in-law's level of education* was also considered an important control variable because educated women are more likely to be contraceptors (see Kamal 1996; Khan 1996; Saha 1994; Ullah and Chakraborty 1993). Finally, two variables were used to evaluate household socioeconomic status: *house type* and *the husband's occupation*. House building materials, consisting of a house's roof and walls, are considered one of the few good indicators of social status in rural Bangladesh (see Table 2). Occupation was evaluated based on four ranked categories established by the ICDDR,B (see Table 3). The frequencies of responses by the study subjects according to variable are shown in Table 1.

Results

Probit statistical analyses were used to examine the influence of a mother-in-law on her young daughter-in-law's use of modern contraceptives (see Table 4).¹¹ For the analyses, the treatment and comparison areas were coded by assigning the former a score of 1 and the latter a score of 0. Two different models (Model-1 and Model-2) were also considered. Besides the variables included in Model-1, Model-2 differed

Table 3. Classification of Husband's Occupation

Score	Occupations
3	Farmer/Agriculturist, Fisherman/Fish business, Business-owner, Shop-owner, Student
2	Skilled labor (Examples: Barber, Carpenter, Tailor, Rickshaw-puller), Boatman, Cottage industry, Service (Examples: Salesman, Cook, Rent collector, Teacher)
1	Agricultural labor/Daily labor, Domestic labor, Factory worker, Unskilled labor (Examples: Tea-stall boy, Shop-helper)
0	Unemployed

because it also incorporated the socioeconomic variables (daughter-in-law's educational level, house type, and her husband's occupation). Both models included the three variables examining the interaction between residential area (treatment vs. comparison) and a mother-in-law's attitude towards contraceptives, experience with contraceptives, and her respect for the younger generation's decisions about having additional children (Variable 4, Case-2 in Table 1). Only case-2 responses were used to compute the interaction between area and the mother-in-law's view on additional children because they probably represent most directly her influence on her daughter-in-law's contraceptive use.

Table 4. Results (probit analyses)

Variables	Model-1	Model-2
Constant	-1.607**	-1.938**
Mother-in-law attitude	0.402**	0.408**
Mother-in-law experience	0.248	0.312
Mother-in-law view case-1	0.111	0.040
Mother-in-law view case-2	0.705	0.561
Mother-in-law view case-3	0.115	0.039
Father-in-law presence	-0.252	-0.274
Husband attitude	0.237	0.175
Number of children	0.304**	0.335**
Child death	-0.740*	-0.771*
Daughter-in-law education		0.185*
House type		-0.071
Husband occupation		0.129
Area	0.868**	0.843**
Attitude x Area	-0.432*	-0.408*
Experience x Area	0.256	0.190
Case-2 x Area	-0.334	-0.266
Chi-Sq. p-value	0.000	0.000
Deg. of freedom	12	15
N	413	413

Notes: **p-value<0.01, *p-value <0.05

The Model-1 results demonstrate that the mother-in-law's attitude toward modern contraceptives has a strong influence on her daughter-in-law's use of contraceptives ($p<0.01$). The results also reveal that the interaction between a mother-in-law's attitude and residential area is significant ($p<0.05$), indicating that a mother-in-law's influence differs according to where she lives; her attitude toward contraceptives appears to have a more pronounced influence in the comparison area than the treatment area. The remaining mother-in-law variables are not significant. Among the control variables, the total number of surviving children, experience with child death, and the area of residence manifest significant influences.¹² The Model-1 results were similar to the Model-2 results; the variables do not reflect levels of significance that are meaningfully different between Model-1 and Model-2. Among the socioeconomic variables in Model-2, only a daughter-in-law's educational level demonstrated a significant positive influence on her contraceptive use.

These results support one of the three hypotheses examined by this study. Both the Model-1 and Model-2 results are consistent with the first hypothesis suggesting that a mother-in-law's attitude towards modern contraceptives positively influences her daughter-in-law's contraceptive use. Neither model is consistent with the other hypotheses.

Discussion and Policy Implications

The preceding analyses have examined the variation in intergenerational interactions associated with family planning concerns in both the treatment and comparison areas. While these areas share a similar socioeconomic and cultural environment, the intensity of their family planning programs is markedly different. Focusing on how these programs co-vary with traditional familial relationships puts us in a position to explore implications for formulating effective family planning policies. In particular, these results permit a consideration of how the use of modern contraceptives can be effectively introduced or further promoted in areas where traditional intergenerational relationships are largely maintained.

The results suggest that mothers-in-law who feel positively about contraceptive use are more likely to have

daughters-in-law who are current users; this association is more significant in the comparison area than the treatment area. We suggest that this pattern relates in large part to the different family planning programs in the Matlab community. In the treatment area, the female Community Health Workers (CHWs) have the greatest level of influence on contraceptive use. They appear to exert considerable influence on the fertility decisions of village women by means of extremely frequent home visits and intensive client interactions that have been tremendously instrumental in establishing a high level of contraceptive prevalence. This influence is partially related to the level of trust and respect given to them by influential older family members like the mother-in-law (Simmons, Mita, and Koenig 1994:331).

During interviews, some daughters-in-law in the treatment area said that their choice of contraceptive method was primarily based on the recommendations of their CHWs. This was particularly the case for daughters-in-law seeking CHW advice about the side effects they had experienced using various types of contraceptives. Furthermore, some mothers-in-law even admitted that they would use the contraceptive methods recommended by CHWs if they were still reproductively active. Overall, the treatment area reflects a high level of respect for, and dependency on the family planning mandates of the community's CHWs.

In contrast, people in the comparison area have relatively limited access to trusted family planning specialists and the prevalence of contraceptives is notably lower. While women of reproductive age in this area receive contraceptive services through FWAs, their relationships to these specialists are not as strong as the client-CHW relationships in the treatment area. Comparison area women are also generally less familiar with modern contraceptives because they live in a social environment with a relatively low contraceptive prevalence; as such, the exchange of information about contraceptive use is limited. In this social setting, it appears that the acceptance of modern family planning technology is more likely to be determined by whether traditionally influential older family members approve of them. Consequently, although mothers-in-law may know little about contraceptives, they still can exert a significant influence on their young daughters-in-law's use of contraceptives. Compared to treatment area mothers-in-law, those in the comparison area are likely to have more authority over fertility issues, and some of them may even intervene as mediators between FWAs and their daughters-in-law.

It is clear from this study that mothers-in-law have a lower level of influence on their daughters-in-law's fertility behavior in settings with extremely costly and intensive family planning programs. We must emphasize, however, that the implementation of intensive programs like the one in the Matlab treatment area is unrealistic for most developing countries. Given the typical economic conditions in these countries, it is simply not possible to fund programs in which contraceptive specialists interact with their clients frequently enough to establish strong and trustful relationships with

them. Hence, these results do not directly imply that family planning programs in the developing world should ignore the role that mothers-in-law or other traditionally influential individuals play in fertility decisions. To the contrary, for many developing countries where older family members do influence the behavior of younger adults, such programs may realize greater success if all adults are educated about the benefits of birth spacing and fewer children. Tapping into the influence that the older generation has on fertility behavior could prove to be a vital strategy for successfully increasing the use of modern contraceptives by the younger generation.

Moreover, regardless of the level of available funding, any family planning program may benefit from harnessing the influence of older adults, especially during the early stages of implementation. In many traditional communities, the attitudes and opinions of older family members carry weight. It makes sense, therefore, that contraceptive specialists should initially endeavor to establish relationships of trust and respect with both young, prospective contraceptive users and their older family members.

Finally, there are areas in the developing world where family planning programs have been established, but contraceptive prevalence is no longer substantially increasing. In such cases, focusing on instructing the older generation about the benefits of modern contraceptives may bring about an increase in contraceptive use (see Fikree et al. 2001).

Conclusion

Further investigation is needed to evaluate how the changes brought about by the introduction of modern contraceptives are affecting the roles of older family members in traditional societies. It is clear, however, that in these societies intergenerational interactions are a prominent instructional feature of the family institution. As a consequence, the older members of a traditional community do tend to influence the behavior of the younger generation. In rural Bangladesh, a woman traditionally moves to her husband's house at marriage and learns from her mother-in-law how to behave properly as a wife and mother. The mother-in-law, therefore, closely regulates the young daughter-in-law's behavior. Within this setting, the use of modern contraceptives has been recently introduced to women of reproductive age. This study has explored how the potency of the traditionally influential Bangladeshi mother-in-law is affected by this new development and the social changes that have accompanied it.

The results have shown that a mother-in-law does influence the young daughter-in-law's use of contraceptives. In addition, this influence appears to be especially strong in Matlab's comparison area where funding is minimal and the family planning program is consequently less intensive. We wish to underscore that less intensive types of programs like the one in Matlab's comparison area are common in most areas of the developing world with limited economic resources. These findings suggest, therefore, that simply educating the

younger generation partially limits the effectiveness of these programs if the ultimate goal is to maximize the acceptance of modern fertility intervention. In rural Bangladesh, family planning specialists should invest effort in educating both the younger and older generation about the benefits of contraceptives. This strategy is imperative because older influential family members, who may adhere to traditional cultural values, such as large family size, can seriously discourage contraceptive use by younger relatives.

For the older generation, emphasis should be placed on encouraging them to promote modern family planning. Besides increasing contraceptive prevalence, this focus will allow older family members to maintain traditionally influential roles in the society; it allows for such maintenance despite the external incursion of modern values, a phenomenon that oftentimes alienates older people in traditional social settings. This strategy is applicable not only to rural Bangladesh, but also to other societies where older family members continue to be influential. Given the present global population crisis, especially in developing countries, incorporating such a focus should be nothing less than a primary component of any program oriented towards bringing spiraling fertility rates under control.

Notes

¹When the prevalence of contraceptive use in Bangladesh was rapidly expanding during the 1980s and 1990s, 80 percent of the country's population lived in rural areas. Moreover, the school enrollment rates for children between the ages of five and nine years were about 42 percent for males and 40 percent for females (Cleland et al. 1994:62, 70). Although rice cultivation had been the dominant economic strategy for centuries, the non-farming population in rural areas was steadily increasing coincident with an increasing scarcity of cultivable land. This shift, however, was not associated with any significant economic development because most of the rural people remained poor (Osmani 1990a, 1990b). Also, without the development of any system of social welfare, the family continued to be the primary source of protection and security (Mannan 1989:71); its function was ensured by having sons. Men were expected to generate the family income, while women were expected to carry out domestic activities and maintain limited public visibility. Hence, Bangladeshi women are economically dependent on men throughout their lives (fathers, husbands, and sons), and their social status is generally low (Nosaka and Andrews 2004).

²There have been previous studies conducted in other parts of South Asia that demonstrate familial influence on contraceptive behavior (see Casterline, Sathar, and ul Haque 2001; Karra, Stark, and Wolf 1997, for examples). In particular, a study by Fikree et al. (2001) finds that Pakistani women who discuss family planning with their mothers-in-law are more likely to use contraceptives.

³This section emphasizes the formal relationship between mother-in-law and daughter-in-law. It should be noted that ideal and actual cultural behaviors typically differ to varying degrees. There are cases in which a Bangladeshi daughter-in-law will behave contrary to the cultural norms, and act in defiance of her mother-in-law's authority (see Nosaka and Andrews 2004, for examples).

⁴While the pill is the most popular contraceptive method in Bangladesh, studies have shown that this method is associated with very high rates of failure (see Bairagi and Rahman 1996; Saha et al. 2004, for detailed discussions).

⁵Today, people in the treatment area continue to receive more inclusive and intensive family planning services than those residing in other areas of Bangladesh. Accordingly, contraceptive prevalence in the treatment area is exceptionally high. In 2005, the rate of contraceptive use in the treatment area was 71.4 percent compared to only 47.4 percent in the comparison area (Mostafa and Rahman 2007).

⁶The issue of possible bias resulting from interview refusal or interviews deemed unsuccessful is discussed elsewhere (see Nosaka 1997:98-100).

⁷This variable was assessed based on responses to two questions, both of which were rated as either "support" (given a score of 1) or "otherwise" (given a score of 0), respectively. These scores were summed to provide an overall representation of a mother-in-law's attitude that ranged from not positive (0) to strongly positive (2).

The first question asked whether a mother-in-law supported her daughter-in-law's use of contraceptives, which garnered responses consisting of "support" (1), "no support" (0), or "no opinion/don't know" (0). Responses of "no opinion/don't know" were regarded as indicative of women who did not have a definite, assertive opinion on the issue. These women were probably neither strongly opposed to or particularly in support of their daughter-in-law's contraceptive use. These responses were not included in the "support" category because this study is most concerned with whether a mother-in-law supports her daughter-in-law's contraceptive use.

The second question asked whether a mother-in-law preferred that her daughter-in-law use a particular method, which prompted a variety of responses. Women who responded with a specific method(s) of contraception were given a score of 1. Those who responded with "no preference as to method" or "non-modern method" were given a score of 0. Other responses included "any method comfortable to my daughter-in-law," "any method chosen by the daughter-in-law (and/or the son)," and "any method recommended by a doctor or a community contraceptive distributor," which were given a score of 1 even though no particular method was mentioned. Although these answers could imply a limited familiarity with modern contraceptives, they were considered to be either indicative of a mother-in-law's respect for her daughter-in-law's decisions or respect for the suggestions of a specialist. Accordingly, these responses imply support for a daughter-in-law's use of contraceptives.

⁸This variable was determined on the basis of responses to two questions. The first question was "How many additional sons/daughters do you think your daughter-in-law should have?" The second question was "If your daughter-in-law does not currently have the number of sons/daughters you desire, how many additional sons/daughters would you like her to have?" Given that the reserved, polite manners of some mothers-in-law might have garnered responses such as "no opinion" or "God's will," it was important to ask both questions to ensure respondent accuracy about this issue. Most mothers-in-law answered both questions with the same response. Some of them, however, provided a non-numerical answer (either case-1 or case-2) to one question and a numerical answer to the other. In these instances, numerical answers were given priority because they indicate a conscious concern about whether a daughter-in-law should have additional children. Also, case-2 answers were given priority for those mothers-in-law who answered one question with a case-1 response and the other with a case-2 response.

⁹This variable was evaluated by asking the daughter-in-law, "What does your husband think about your use of contraceptives?" Responses were classified as either not positive or positive. Husband responses of "he does not approve" or "he does not think anything/I don't know" were considered not positive, whereas responses of "good" were considered positive.

¹⁰Instances of miscarriage or stillbirth were not considered child death experiences.

¹¹Probit analysis is suitable for conditions in which the dependent variable is binary (i.e., using or not using contraceptives), and the independent and controlling variables include both qualitative and quantitative responses.

¹²Although the statistical results do not show that the husband's attitude significantly influences his wife's use of contraceptives, qualitative information collected by the first author does reflect husband involvement in issues related to fertility regulation. In some cases, women follow their husbands' opinions and suggestions (either to use or not to use); in other cases, women appear to be able to convince their husbands of the benefits of regulating one's fertility (see Nosaka and Andrews 2004:155-156).

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