

Knowledge, Approval and Communication About Family Planning as Correlates of Desired Fertility Among Spouses in Pakistan

By Naushin Mahmood and Karin Ringheim

The responses of a matched sample of husbands and wives who participated in the 1990–1991 Pakistan Demographic and Health Survey are used to identify the factors associated with desired fertility in Pakistan. In urban areas, 40% of men and 50% of women do not want more children, compared with 26% of men and 37% of women in rural areas. Urban men and women are equally likely to approve of family planning, whereas among rural residents, men are significantly more likely than women to approve. In both settings, men are more likely than women to know of a source of supply. Multivariate analyses indicate that a couple's approval of family planning, knowledge of a source of family planning and discussion about family planning are correlated with the desire to have no additional children, and the relationship is particularly strong among rural residents. The influence of the spouse's fertility desire and of communication about family planning suggest that concerted efforts to educate men about reproductive and child health and to facilitate communication between husbands and wives would assist couples in agreeing upon and meeting their reproductive goals.

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A couple's stated family-size preferences are considered important for assessing their demand for children, for measuring their motivation for fertility limitation and for predicting future prospects of fertility change.¹ A recent debate over the relationship between family-size preferences and fertility outcomes has centered on whether family planning plays a significant role in determining outcomes.²

If fertility outcomes are determined almost entirely by desired total fertility, then the role of family planning would be simply to facilitate, through the use of modern contraceptives, the reproductive intentions that couples would meet through less modern means if such services and methods were not available. According to this argument, a decline in the desire for children is a reflection of changing social, economic and cultural influences, and fam-

ily planning services and methods represent only a means to a predetermined end.

It is indeed difficult to demonstrate empirically that family planning programs have played a significant role in reducing desired fertility. Critics have noted the important contribution that the availability of family planning services makes to reducing unwanted fertility,³ but what of the role of family planning programs in creating ideational change, first by bringing about awareness of fertility control and second by promoting the advantages of smaller families—and potentially kindling a desire to have fewer children?

Family planning programs have largely achieved the first precondition to family planning use* by fostering an awareness of the individual's power to control what was previously considered destiny, fate or "up to God."⁴ In addition to increasing knowledge of and access to methods, programs typically stress the advantages of family planning to parents, children and society as a whole.

Bangladesh is a case in which the desire to have fewer children is unlikely to have arisen solely from social and economic development.⁵ One should perhaps not conclude that because family planning programs tend to be strongest in countries with low levels of wanted fertility,⁶ such programs are entirely demand-driven.⁷ Many family planning programs do not passively supply services, but actively

seek to create demand. Such activities can change the cultural milieu in which desires for children develop.⁸

Family planning programs promote a small-family norm, through—at the very least—the ubiquitous logo of a small family, as a means of identifying service delivery sites or the program itself. While some country programs limit themselves to this almost subliminal level of promotion, others aggressively strive to change family-size ideals. Strategies have included policy changes to raise the age at first marriage; campaigns to delay the age at first birth and to promote birthspacing and fewer births overall for the improvement of maternal and infant health; efforts to equalize the value parents ascribe to girl children and boy children; and attempts to raise awareness of the impact of rapid population growth on the environment. Family planning programs may recommend that couples have the number of children that they can reasonably afford and educate, or that will be commensurate with the country's self-defined need for sustained development.

Spouses' Fertility Desires

A husband's demand for children is significantly related to his wife's desired fertility, as well as to the couple's fertility outcome.⁹ This compatibility is not surprising, in that the husband's and wife's desires are subject to similar—if not entirely overlapping—familial, religious, socioeconomic and cultural norms and influences. In countries with persistent high fertility and gender inequality, spouses' fertility desires may be less compatible, given low levels of education, the relative confinement of women and societal norms that convey little need or precedent for couples to communicate their desires to each other. In such social settings, husbands' fertility desires may be presumed to be more exposed to influences outside the family, whereas wives' desires are probably shaped to a larger extent by familial norms and pressures.

*Ansley Coale identified three preconditions to contraceptive use: People are aware that fertility can be controlled, methods of family planning are known and available and the use of methods is perceived as advantageous by the individual (see: reference 4).

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With respect to its family structure and fertility behavior, Pakistan is a traditional patriarchal society. According to surveys conducted between 1969 and 1995, changes in total fertility rates and in contraceptive use have been modest,¹⁰ with Pakistan remaining near the onset of fertility transition.¹¹

Pakistan is characterized by an extremely low level of female education and literacy. Nearly 80% of currently married fecund women aged 15–49 who participated in the 1990–1991 Pakistan Demographic and Health Survey (PDHS) had no formal education.¹² The traditional role of women secludes them from contact with people other than family members, especially men.¹³ Only a small minority of women participate in the wage economy. Marriage is early and nearly universal. Although the mean age at marriage has risen considerably and is now nearly age 22,¹⁴ one-third of ever-married women surveyed in the PDHS had married at or before age 15.

The total fertility rate in Pakistan (5.4 lifetime births per woman) exceeded by well over one birth per woman the ideal number of children reported by ever-married women participating in the PDHS. Ideal family size varied widely, from 4.0 children in Punjab (the most developed region) to 6.3 in Baluchistan (the least developed region). Couple data indicate that fewer than 10% of men and women agreed on the exact number of children they would consider ideal,¹⁵ although the correlation between men's and women's desires on future childbearing is much higher.

Evidence of a desire for smaller families and a latent demand to control fertility exists in all groups, particularly among the most educated and urbanized.¹⁶ While 54% of married women in the 1990–1991 PDHS expressed a desire either to cease childbearing or to delay their next birth by at least two years, 72% of women responding to the 1994–1995 Pakistan Contraceptive Prevalence Survey had yet to initiate contraceptive use.¹⁷ Contraceptive prevalence increased slightly, from 14% in 1990–1991 to nearly 18% in 1994–1995, but no accompanying decline in the total fertility rate was noted. A recent reanalysis of demographic surveys suggests, however, that a modest fall in fertility began in the 1980s among women who are now in their 40s, and that fertility-limiting behavior can be expected to spread to younger women.¹⁸

How rapidly this behavior will be adopted depends in part on couples' ability to meet their reproductive goals through access to family planning. Pakistan's official family planning program,

which is aimed at enhancing the availability of services, has had limited success in increasing contraceptive choice and improving access to and quality of services.¹⁹

Neither have the socioeconomic milieu and conditions for women been favorable toward changing traditional norms. Women's subjugated position in society, their low levels of education and their minimal participation in the wage economy all serve to maintain cultural pressure for large families and for sons,²⁰ even when couples would prefer not to have additional births.

This article examines, for a matched set of women and their husbands, the important covariates of the desire to stop having children in a society in which the majority of men and women say that ideal family size is "up to God."^{*} We consider husbands' and wives' fertility desires separately, to examine gender differences in the factors influencing reproductive preferences. After controlling for the effects of age, education, number of living children and urban-rural residence, we match couples' responses to questions on approval of contraception and on spousal communication about family planning and knowledge of a source. Finally, we examine the influence of the spouse's desire for additional children on the respondent's desire.

Methodology

Data

The data for this analysis are drawn from the PDHS, which is based on a stratified, clustered and systematic sample of urban and rural households in the four provinces in which 96% of the Pakistani population lives.²¹ The survey yielded information on 6,611 ever-married women aged 15–49 and a subsample of 1,354 of their husbands. We have selected for analysis a matched set of currently married, fecund women aged 15–44[†] and their husbands (of any age). The sample size of 1,260 couples is weighted to better represent the actual urban-rural distribution of the population sampled,[‡] yielding 887 rural and 373 urban couples.

Analytic Approach

The dependent variable, a measure of desired additional fertility, is taken directly from a survey question asking fecund women and their husbands whether the respondent would like to have a child (or another child) or would prefer not to have any more children. The variable has four categories of responses, indicating "have a (or another) child," "have no more (or none)," "it is up to God" and "undecided." Because our concern is with the de-

mand for additional children, we measure the dependent variable as dichotomous, assigning a value of one for respondents who do not want any more children and a value of zero for all other responses. (The respondents who replied "up to God" or "undecided" have been included among "all others," under the assumption that they did not have a clear wish to stop childbearing and could be counted as effectively wanting more children.²²)

For the multivariate analysis, we used logistic regression, an appropriate functional form for the analysis of dichotomous variables.²³ The logit analysis provides the natural logarithm of the odds of desiring not to have more children (the dependent variable) as a function of a set of predictor or independent variables. The probability of the desire not to have more children is predicted to be dependent on (or to be correlated with) the characteristics of women and men, and the coefficients represent the magnitude of the increase in the log-odds of desiring no more children when there is a unit increase in the predictor variables. Three sets of equations were estimated, based on the separate samples of husbands and wives for total, urban and rural areas.

The PDHS offered only limited choices for measures of the impact of the family planning program on the desire for additional children. We included whether the respondent knew of a source of supply for contraceptives, whether he or she approved of family planning and whether he or she had discussed family planning with his or her spouse in the last year.

To capture the influence or awareness of couples and the compatibility of their views, couple variables were created in order to compare the responses of husbands and wives to these three questions. In each case, the reference category in the logistic regression is the category that is predicted to have the largest negative association with the desire to have no more children—e.g., both partners disapproved of family planning, neither had discussed it and neither knew of a source of supply.

*About 60% of both husbands and wives surveyed in the 1990–1991 PDHS said that it was "up to God" in response to the question on ideal family size, a number with no precedent in all previous Demographic and Health Surveys (see: reference 12, p. 104).

†Excluding women older than 44, those who were sterilized or whose husband was sterilized, or those who otherwise defined themselves as unable to become pregnant. A few others were excluded because of missing data, reducing the sample to 1,260.

‡Further information on the sample weights is provided on p. 12 and pp. 201–213 of the 1990–1991 Pakistan Demographic and Health Survey (see: reference 12).

Table 1. Percentage distributions of fecund wives aged 15-44 and of their husbands, by selected demographic and family planning characteristics, according to urban-rural residence, Pakistan Demographic and Health Survey, 1990-1991

Characteristic	Wives			Husbands		
	Total (N=1,260)	Urban (N=373)	Rural (N=887)	Total (N=1,260)	Urban (N=373)	Rural (N=887)
Wants more children						
Yes	59.1	49.8	63.1	69.7	59.2	74.1
No	40.9	50.2	36.9	30.3	40.8	25.9
Current age						
<30	46.5	44.5	47.4	24.6	22.6	25.4
30-39	31.3	35.1	29.6	34.4	36.0	33.7
40-44†	22.2	20.4	23.0	41.0	41.4	40.9
Education						
None	82.0	61.1	91.4	51.0	30.3	59.9
Primary/middle	10.5	18.0	7.3	28.6	27.2	29.1
Higher	7.5	20.9	1.3	20.4	42.4	11.1
Attitude toward family planning						
Approves	54.6	74.3	46.2	66.4	74.6	62.9
Disapproves	45.4	25.7	53.8	33.6	25.4	37.1
Discussed family planning with spouse						
None	57.7	42.1	63.6	58.6	42.4	65.5
Some	42.3	57.9	36.4	41.4	57.6	34.5
Knows source of family planning						
Yes	42.3	68.4	31.3	63.2	81.0	55.8
No	57.7	31.6	68.7	36.8	19.0	44.2
Total	100.0	100.0	100.0	100.0	100.0	100.0

†Age-group is ≥40 among men.

The association of each couple variable with the desire to have no additional children is thus always expected to be positive.

Communication was liberally interpreted in the "communication about family planning" variable, by including whether the couple had discussed the number of children they would like to have. If either family planning or desired family size had been discussed, the communication variable took the value of one.

A number of control variables were also used in the regression. Current age and the number of living sons and daughters represented the life-cycle stage of either partner and were expected to be positively related to the desire to have no more children. Anticipated son preference was addressed by comparing the size of the effect of number of living sons and number of living daughters on the desire for no more children. Wife's or husband's education was measured as a three-category dummy variable, representing "no education," "primary and middle schooling" and "secondary or higher education." We expected that respondents who had attained some level of schooling—higher

education in particular—may be more able to articulate a desire not to have more children. For the total sample, residence was categorized as urban or rural.* We expected that urban residence would increase the likelihood that a respondent would want no additional children.

In this article, we present separately for wives and husbands three logistic regression models of the effect of selected predictor variables. The first model includes the control variables only—age, number of living sons and daughters, and education. The second model adds in variables that serve as proxies for awareness of and attitude toward the family planning program: their approval of family planning, discussion with their spouse about family planning and knowledge of a source. In the final model, we add the measure of the spouse's desire to have no more children. (The variable was coded as 1 if no more children were desired by the spouse, and was coded as 0 otherwise.) We also show results for urban and rural respondents separately.

Results

Bivariate Findings

Table 1 provides a distribution of the individual characteristics—including the measures of family planning attitudes and knowledge—of wives and husbands for the total, urban and rural samples. Half of urban women and 41% of urban men do

not want more children, compared with 37% of rural women and 26% of rural men. As expected, rural respondents are much more likely than urban men and women to have no formal schooling, and the proportions with a secondary or higher education were much higher among urban residents than among rural respondents.

Although men in rural areas want more children than their wives, they are also considerably more likely than their wives to approve of family planning (63% vs. 46%) and to know of a source of supply (56% vs. 31%). Two-thirds of rural spouses had never discussed family planning or the number of children they would like to have with their counterpart, whereas a majority of urban men and women said they had some communication with their spouse about these topics in the past year.

Table 2 gives percentage distributions of selected joint characteristics for couples. About half of responding couples had four or more children, and among half of all couples, neither husband nor wife had any education. Distributions of couple variables in which the responses of husbands and wives regarding family planning can be compared indicate that in only 20% of couples did both husband and wife disapprove of family planning, while in 41%, both approved.

The data also indicate substantial disagreement in reported discussion about family planning, with only 63% of couples in agreement about whether family planning had been discussed in the last year

Table 2. Percentage distributions of couples, by selected joint characteristics, according to urban-rural residence

Characteristic	Total	Urban	Rural
No. of children			
0-3	49.3	51.5	48.5
4-5	26.3	23.0	27.6
≥6	24.4	25.5	23.9
Education			
Both none	49.0	25.9	58.7
Other	51.0	74.1	41.3
Attitude toward family planning			
Both approve	41.2	59.2	33.5
Only husband approves	25.2	15.3	29.4
Only wife approves	13.4	15.0	12.7
Both disapprove	20.2	10.5	24.4
Discussed family planning			
Both report discussion	23.6	38.9	17.1
Either reports discussion	37.0	37.8	36.9
Neither reports discussion	39.4	23.3	46.1
Knows of source of family planning			
Both know	31.4	60.9	19.2
Only husband knows	31.7	20.1	36.6
Only wife knows	10.9	7.5	12.3
Neither knows	26.0	11.5	31.9
Total	100.0	100.0	100.0

*Previous models including region of residence consistently found that residents of Sindh, Northwest Frontier Province and especially Baluchistan had higher fertility desires when compared to the reference category of the Punjab, the most developed of the four regions. Excluding region of residence did not significantly alter the results.

and the majority of these reporting that it had not been. Rural couples were twice as likely as urban couples to report having never discussed family planning (46% vs. 23%). In only a small minority of rural couples did both husband and wife know of a source of family planning. Urban couples were three times as likely as rural couples to respond that both spouses knew of a source (61% vs. 19%).

Table 3 shows the percentage of currently married, fecund women and their husbands who express a desire to have no more children, according to age, number of living children, level of education and family planning knowledge and attitudes. Among 30–39-year-old women, the proportion indicating that they would prefer to have no additional children is substantial—50% overall, 46% in rural regions and 57% in urban areas, whereas a lesser but still substantial proportion of men older than 40* prefer not to have more children (40% of rural men and 49% of urban men).

By and large, urban-rural differences are smaller among men and women who both approve of family planning, who have discussed it with one another and who know of a source than they are among other couples. For example, 54% of urban women and 49% of rural women who approve of family planning say they want to end childbearing; in contrast, among women who with their partner disapprove of family planning, the proportion wanting no more children is much greater among urban women than among rural respondents (51% vs. 23%). Within the rural sample, the percentage of women and their husbands wanting no more children is twice as high in instances in which both spouses approve of family planning as in cases where both disapprove.

Perhaps the most striking finding in Table 3 is the substantial gap in the desire to have no more children among couples in which only the woman approved of family planning. If their own preferences could be served, nearly 60% of rural women who approved of family planning would have no more children, but only 16% of their husbands are in agreement.

Multivariate Findings

Results for the total samples of women and their husbands show that across all models, current age has a small but highly significant effect on the desire for additional children among both men and women (Table 4, page 126). As predicted, the older men and women are, the more likely they are to want no more children.

Urban residence is significantly related

Table 3. Percentage of wives and their husbands who desire no more children, by selected characteristics, according to urban-rural residence

Characteristic	Wives			Husbands		
	Total	Urban	Rural	Total	Urban	Rural
All	40.9	50.2	36.9	30.3	40.8	25.9
Current age						
15–29	20.2	30.5	16.1	9.7	21.4	5.3
30–39	49.8	56.7	46.4	30.1	43.5	21.4
≥40	71.8	82.0	67.9	42.8	48.9	40.2
No. of living sons						
0–3	33.9	43.1	30.1	24.8	34.4	20.8
≥4	76.2	84.4	72.4	58.0	72.0	52.4
No. of living daughters						
0–3	37.1	46.5	33.2	28.1	39.4	23.5
≥4	65.0	70.0	61.5	44.0	53.4	42.0
Education						
None	39.3	49.3	36.4	25.9	28.7	25.3
Primary	44.0	47.0	41.0	32.6	47.5	26.7
Secondary	55.8	56.0	56.2	38.2	45.2	27.0
Attitude toward family planning						
Both approve	51.4	54.3	49.3	40.5	46.2	36.2
Only husband approves	26.2	33.3	24.6	27.4	33.5	26.0
Only wife approves	56.6	51.1	59.3	21.9	33.7	16.0
Both disapprove	27.6	50.8	23.4	18.8	30.8	16.7
Discussed family planning						
Both report discussion	57.4	54.2	60.4	46.4	49.2	44.3
Only husband reports	37.8	46.4	33.9	37.8	43.8	35.1
Only wife reports	41.1	46.7	38.7	22.0	31.5	18.0
Neither reports	32.4	49.6	28.8	21.2	31.9	18.9
Knows source of family planning						
Both know source	52.1	53.6	48.9	43.6	46.7	39.6
Only husband knows source	36.3	48.4	33.6	28.0	39.9	25.2
Only wife knows source	46.9	49.4	46.3	34.7	31.5	35.5
Neither knows source	30.4	34.9	29.8	15.2	17.6	14.8

to desired fertility, at least until family planning variables are taken into account. Similarly, in the husband's model, except for the small effect of wife's secondary education, the net predictive power of either partner's education is reduced to nonsignificance when couple views of family planning are added. Education may act on the desire for more children through partner communication, with educated couples better able and more likely to converse about sensitive topics such as family planning.

Gender Differences

Men and women differ in the degree to which having living sons and living daughters is important in formulating a desire not to have more children. In this analysis, a significant, positive coefficient for living daughters indicates that having at least one daughter is important to the decision not to have more children. If the coefficient is not significant, the number of daughters is not relevant to the individual's fertility desires. For both women and men, in all three models, number of living sons and number of living daughters are positively related to the desire not to have more children. For daughters, the size of the coefficient among wives remains constant

and significant from the initial to the final model, whereas among husbands, the coefficient for daughters is smaller initially and diminishes to nonsignificance in the final model, which includes both family planning variables and spouse's fertility desires. Among the husbands, the coefficient for living sons is nearly four times that for daughters, and among wives, it is approximately twice as great as that for daughters. This reinforces the primary importance of having sons in the Pakistan context.

For both men and women, nearly all of the couples' family planning variables proved to be significant when they were introduced in the second model. However, while shared approval is a strong and significant correlate of the desire to have no more children, approval only by the other partner is negatively related to the desire for no more children. Approval of family planning only by one's spouse implies either a negative attitude toward or uncertainty about family planning on the part of the respondent that is correlated with the desire for more children.

For the remaining family planning–

*In Pakistan, husbands are on average 6.7 years older than their wives. (see: reference 12, p. 171.)

Table 4. Logistic regression coefficients of the effect of selected demographic and family planning variables on the desire to have no more children among wives and husbands, by set of variables included in regression

Variable	Wives			Husbands		
	Control variables only	Plus family planning	Plus spouse's fertility desire	Control variables only	Plus family planning	Plus spouse's fertility desire
Age	0.07***	0.09***	0.07***	0.04***	0.06***	0.06***
Residence						
Urban	0.43**	0.06	-0.01	0.51***	0.29	0.29
Rural	†	†	†	†	†	†
Wife's education						
None	†	†	†	†	†	†
Primary/middle	0.34	-0.11	-0.14	0.68**	0.28	0.27
≥secondary	0.93***	0.41	0.43	0.47*	0.07*	-0.17
Husband's education						
None	†	†	†	†	†	†
Primary/middle	0.24	-0.03	-0.03	0.42**	0.28	0.21
≥secondary	0.41*	0.04	0.03	0.62***	0.17	0.15
Children						
No. of living sons	0.59***	0.66***	0.56***	0.53***	0.59***	0.45***
No. of living daughters	0.27***	0.27***	0.26***	0.18***	0.13**	0.05
Attitude toward family planning						
Both disapprove	na	†	†	na	†	†
Both approve	na	1.15***	1.05***	na	0.63**	0.44*
Only husband approves	na	-0.56**	-0.62**	na	0.12	0.27
Only wife approves	na	1.18***	1.36***	na	-0.68**	-0.86**
Discussed family planning						
No discussion	na	†	†	na	†	†
Both report discussion	na	0.99***	0.78***	na	1.05**	0.79***
Either reports discussion	na	0.31*	0.23	na	0.41**	0.31*
Knowledge of source of family planning						
Neither knows	na	†	†	na	†	†
Both know	na	0.38*	0.19	na	1.11***	1.06***
One knows	na	0.41**	0.26	na	0.96***	0.86***
Spouse's fertility desire						
Wants no more children	na	na	1.11***	na	na	1.18***
Wants more	na	na	†	na	na	†
Constant	-4.63***	-6.27***	5.80***	-4.42***	6.43***	-6.08***
-2 Log Likelihood	1226.6	1089.9	1050.3	1214.9	1100.3	1055.9
Model Chi Square (df)	477.9(8)	614.5(15)	654.1(16)	330.4(8)	445.1(15)	489.5(16)
% of desire correctly predicted	76.2	79.7	80.9	75.4	79.7	81.3

*p<.10. **p<.05. ***p<.01. †Reference category.

related variables, even if only one partner knows of a source or states that family planning has been discussed, the relationship with the desire to have no more children is significant and positive when compared with the reference groups. Adding the spouse's fertility desire to the model reduces the effects of reported communication by either partner and knowledge of a source of supply to nonsignificance only in the wives' model.

Among urban women especially (Table 5), few variables outside of the control variables had any explanatory power, except in the final model, where the substantial impact of the husband's desired fertility can be seen. Theoretically, we would not

expect that the fertility desires of urban couples would be shaped by the availability and knowledge of family planning, to the extent that they may be in the more traditional rural areas. Differentials in the effect of the numbers of sons and daughters are greater between urban husbands and wives than for the total sample.

For urban husbands, the number of daughters appears not to be relevant to their future fertility desires. This may imply that in the urban environment, a desire to limit births is emerging among younger men with smaller families, such that if the desired number of sons has been achieved, men are willing to forgo having additional children, even if they have no daughters. For husbands, their own level of education, communication with their wives about family planning and whether one spouse knew of a source of family

planning are all strongly associated with the desire not to have more children.

Findings for the rural sample (Table 6, page 128) are more consistent with those for the sample as a whole, indicating a greater impact of number of living daughters on desired future fertility for rural men than for urban men. The implication is that although the number of living daughters is not nearly as important to future fertility desires as the number of sons, both men and women in rural areas take the former into account when deciding whether to have more children. (This finding is consistent with research in Nepal documenting the desire for at least one daughter.²⁴) It also may be critical not only to have one daughter, but also not to have too many, given the expense of dowry.*

In the second model, for both men and women, there is a strong association between fertility desires and couples' attitudes toward and communication about family planning, as well as between their desires and their knowledge of a source of supply. As was the case in the urban sample, knowledge of a source by either or both partners is a stronger correlate of men's desired fertility than of women's. For rural men, this is the largest coefficient in the analysis, whereas for rural women, the largest coefficients in predicting the desire to have no more children are a woman's own approval of family planning (which was more important than the approval of both spouses) and the fact that both partners communicated about family planning.

When family planning is approved only by the spouse, the respondent is more likely to want additional children (as indicated by the negative coefficient). This effect becomes even stronger when the spouse's fertility desire is added to the regression in the final model, although the size and significance of the spousal communication variables are diminished. This result may also be interpreted as representing (especially for men) the strong association between the respondent's disapproval of or uncertainty about family planning and his or her own desire to have more children.

Desired Fertility of Husbands and Wives

To examine the effect of a spouse's desires on the fertility desires of either partner, in the final model we added the spouse's desired fertility as one of the predictors of the desire not to have additional children. The fertility desires of the spouse were strongly and positively related to those of the respondent across all models. For example,

*Evidence that too many daughters are considered a handicap is implied by the 60% higher rates of child mortality among 1-5-year-old girls than among comparable boys in Pakistan (see: J. Rosen and S. Conly, reference 19).

among urban women (Table 5), the final model shows that the husband's fertility desires are the strongest predictor of a woman's own desires. However, adding this variable does not greatly diminish the strong effect of family planning approval by both spouses in the models for the total sample (Table 4) and the rural sample (Table 6). Doing so does eliminate the significance of knowledge of a source of family planning for women in these two models (although not for their husbands).

In the overall analysis and in the rural analysis, adding the spouse's fertility desire only somewhat dampened the strong effect of husband-wife communication about family planning as reported by both partners (Tables 4 and 6). Although correlations between these variables were significant, the strong effects seen here do not result from colinearity.

Discussion

Researchers have experienced difficulty in demonstrating convincingly that family planning programs influence the demand for children. Available indicators of family planning program outreach have shortcomings, and our analysis cannot establish the direction of causation between fertility desires and program variables. Controlling for other factors, our results suggest a strong association between both joint approval and discussion of family planning by couples and desire to have no more children, particularly in rural areas of Pakistan. Knowledge on the part of either or both spouses of a source of supply contributes substantially, particularly to the husband's desire to have no more children.

There is little doubt that seeking information about family planning and discussing it are logical steps for couples to take when they want to stop having children. Neither is it implausible that in Pakistan the family planning program may have quietly contributed to a revolution in thinking about fertility.

Improving the status of women, particularly through education, and maintaining a strong national commitment to family planning are presumed to be essential to achieving a sustainable level of fertility. Women's educational attainment and status have risen very slowly in Pakistan, and the government's decades-old family planning program has suffered from wavering political commitment and commensurately weak program effort over time.²⁵ It may be that the program has been instrumental in creating nascent social awareness that fertility can be controlled (Coale's first precondition) and that fer-

Table 5. Logistic regression coefficients of the effect of selected demographic and family planning variables on the desire to have no more children among urban wives and husbands, by set of variables included in regression

Variable	Urban wives			Urban husbands		
	Control variables only	Plus family planning	Plus spouse's fertility desire	Control variables only	Plus family planning	Plus spouse's fertility desire
Age	0.04**	0.05**	0.04**	0.02**	0.04**	0.05**
Wife's education						
None	†	†	†	†	†	†
Primary/middle	-0.07	-0.25	0.36	0.66**	0.33	0.36
≥secondary	0.86**	0.55	0.58	0.39	-0.12	0.37
Husband's education						
None	†	†	†	†	†	†
Primary/middle	0.29	0.14	-0.02	0.96***	0.81**	0.78**
≥secondary	0.15	-0.01	-0.16	1.01***	0.71**	0.76**
Children						
No. of living sons	0.64***	0.66***	0.51***	0.61***	0.62***	0.43***
No. of living daughters	0.37***	0.39***	0.41***	0.07	0.06	0.07
Attitude toward family planning						
Both disapprove	na	†	†	na	†	†
Both approve	na	0.75	0.68	na	0.53	0.32
Only husband approves	na	-0.73	-0.77	na	0.02	0.19
Only wife approves	na	0.36	0.45	na	-0.14	-0.16
Discussed family planning						
No discussion	na	†	†	na	†	†
Both report discussion	na	0.09	0.09	na	0.87**	0.98**
Either reports discussion	na	0.35	-0.42	na	0.28	0.42
Knowledge of source of family planning						
Neither knows	na	†	†	na	†	†
Both know	na	0.29	0.10	na	1.01**	0.93*
One knows	na	0.54	0.38	na	0.95*	0.85*
Spouse's fertility desire						
Wants no more children	na	na	1.27***	na	na	1.36***
Wants more	na	na	†	na	na	†
<i>Constant</i>	-3.43***	-4.32***	-3.83***	3.51***	-5.46***	-5.65***
<i>-2 Log Likelihood</i>	378.0	361.2	343.2	403.9	384.4	361.8
<i>Model Chi Square (df)</i>	138.8(7)	155.6(14)	173.6(15)	100.2(7)	119.7(14)	142.3(15)
<i>% of desire correctly predicted</i>	76.9%	78.1%	79.6%	75.1%	75.6%	78.2%

*p<.10. **p<.05. ***p<.001. †Reference category.

tility control is not incompatible with Islam. Coale's second and third preconditions—that family planning methods be known and available, and that fertility control be viewed as advantageous²⁶—appear to have been less widely met, as reflected in the wide gap between the proportion of men and women who want to stop having children and the proportion of those who have ever tried practicing contraception, as well as in the small percentage of women who have heard about the importance of childspacing.²⁷

Our findings may not be generalizable to other countries, where traditional values often are being assaulted on many fronts simultaneously, by rapid social change and economic growth. We trust that future research will test the relationship between fertility desires and family planning with data and proxies more suited to that purpose. Given these caveats, we base our policy implications for the future

direction of Pakistan's family planning program on the assumption that a focused, accessible and high-quality program can both further ideational change and address unmet need, and by doing so help couples to agree upon and meet their reproductive goals.

Programmatic Implications

Approval of family planning by either or both partners, knowledge of a source and communication with the spouse about family planning are shown in this article to be covariates of the desire to have no more children among both husbands and wives, particularly in rural areas. The inability of couples to protect themselves from unwanted pregnancy points to the need to expand awareness and improve the family planning service delivery system, especially in rural areas, where the majority of the population lives.

Our analysis suggests that a lack of at-

Table 6. Logistic regression coefficients of the effect of selected demographic and family planning variables on the desire to have no more children among rural wives and husbands, by set of variables included in regression

Variable	Rural wives			Rural husbands		
	Control variables only	Plus family planning	Plus spouse's fertility desire	Control variables only	Plus family planning	Plus spouse's fertility desire
Age	0.08***	0.11**	0.09**	0.05***	0.07***	0.07***
Wife's education						
None	†	†	†	†	†	†
Primary/middle	0.64**	0.06	0.05	0.72***	0.34	0.32
≥secondary	1.45**	1.01	1.07	0.21**	0.09	-0.09
Husband's education						
None	†	†	†	†	†	†
Primary/middle	0.19	-0.13	-0.09	0.29	0.17	0.08
≥secondary	0.66**	0.16	0.20	0.48*	-0.15	-0.23
Children						
No. of living sons	0.57***	0.67***	0.57***	0.49***	0.60***	0.46***
No. of living daughters	0.23***	0.21***	0.19***	0.25***	0.17***	0.11*
Attitude toward family planning						
Both disapprove	na	†	†	na	†	†
Both approve	na	1.27**	1.16***	na	0.68**	0.52*
Only husband approves	na	-0.52***	-0.58***	na	0.13	0.25
Only wife approves	na	1.49***	1.69***	na	-1.02***	-1.27***
Discussed family planning						
No discussion	na	†	†	na	†	†
Both report discussion	na	1.39***	1.18***	na	1.03***	0.56*
Either reports discussion	na	0.42**	-0.35	na	0.43**	0.25
Knowledge of source of family planning						
Neither knows	na	†	†	na	†	†
Both know	na	0.44*	0.24	na	1.21***	1.28***
One knows	na	0.36*	0.22	na	1.01***	0.96***
Spouse's fertility desire						
Wants no more children	na	na	1.09***	na	na	1.19***
Wants more	na	na	†	na	na	†
<i>Constant</i>	-5.02***	-6.97***	-6.51***	-4.67***	-6.82***	-6.42***
<i>-2 Log Likelihood</i>	838.9	708.1	684.7	799.4	703.1	676.7
<i>Model Chi Square (df)</i>	329.8(7)	460.7(14)	484.1(15)	215.1(7)	311.4(14)	337.7(15)
<i>% of desire correctly predicted</i>	76.6%	81.9%	81.4%	76.7%	82.3%	82.1%

*p<.10. **p<.05. ***p<.001. †Reference category.

tention to men's role in fertility decisions is a shortcoming of the program.* Previous research concluded that fundamental to a lack of demand for contraception in Pakistan was the dynamic of a male-dominated society—in which women who bear the children may desire to have fewer but men who reap the benefits want more.²⁸ Our findings, with few exceptions, also show that the desire to have no more children is greater among women than among men. Among rural couples in which only the wife approved of family planning, women were nearly four times as likely as their husband to want no more children.

Although the majority of men want

*An exception is the Family Planning Association of Pakistan, which has recognized for years that "in the cultural context of Pakistan, ... all efforts in promoting family planning require involving men." (See: AVSC International, *The Family Planning Association of Pakistan's Faisalabad Program for Men: A Case Study*, New York, 1997, p. 13.) The program's efforts, although small in scale, have made headway in generating demand for services among men.

more children, the majority also approve of family planning, and men are more likely to know of a source of contraceptive supply than are women. This favorable attitude and knowledge implies an opportunity to reach men with reproductive health messages that has not been maximized in a program focused largely on women. In a strongly patriarchal society where a small proportion of women are literate, ignoring the influence of husbands on family decision-making by failing to involve men in family planning program could hamper program efforts.

Women who have little or no education and who are secluded from interaction outside the home are not easily reached with health education messages. While the education of women and the expansion and improvement of services are clearly necessary, the importance of raising the reproductive health awareness of husbands and of informing men about the advantages of childspacing for the child, for the mother

and for the family should not be overlooked.

Our analysis also shows that although women are more likely to want no more births, a substantial minority of men also express such a desire. When this proportion is combined with that of men who say they would like to delay the next birth, latent demand for family planning among men exceeds 50%. Thus far, contraceptive accessibility remains a serious problem, particularly in rural areas, where only a minority of men know of a source of family planning. Similarly, the use of mass media to raise awareness has not taken advantage of the growing percentage of Pakistani households with a radio or television: Only a minority of men said they had heard a family planning message in the last month.²⁹

Communication about family planning and family size was a significant covariate of the desire to have no more children. The direction of causation in this relationship is plausibly two-way, occurring when already-established fertility desires are articulated to the partner and when a discussion of advantages of childspacing or birth limitation is translated into lower fertility desires, for one or both partners. Our analysis reveals that the fertility desires of wives and husbands are shaped by the partner's desires, whether or not these are explicitly communicated. (Sixty-three percent of women and 67% of men said they had not discussed the number of children they would like to have with each other.)

Undoubtedly, fertility desires are influenced to a large extent by socioeconomic, religious and health factors, which forge a mutual set of interests even in the absence of overt communication. Communication between husband and wife about the desire for additional children may be nonverbal, or it may occur indirectly, perhaps through family members. Developing interventions to improve the unfortunate situation of spouses who may each want no more children but who have never broached the subject with one another is a challenge to religious leaders and policy makers, as well as to educators and communications experts.

Within the same household, evidence of latent demand for fertility control by one partner is an indication that the family planning program might be more successful if a consensus on fertility desires among discordant couples could be reached. Research is needed regarding the best approaches for reaching men and women in traditional settings, for attempting to legitimize communication between them about family and reproduc-

tive health issues, and for resolving differences in their fertility desires.

By promoting child quality over quantity, counteracting son preference, encouraging couples to consider the health, educational and economic futures of their children, and promoting increased male responsibility for family and reproductive health, Pakistan's family planning program may have a greater impact on fostering ideational change and on helping couples meet their own reproductive goals.

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Resumen

Las respuestas de una muestra apareada de cónyuges que participaron en la Encuesta Demográfica y de Salud de Paquistán de 1990-1991 fueron utilizadas para identificar los factores relacionados con la fecundidad deseada en Paquistán. En áreas urbanas, el 40% de los hombres y el 50% de las mujeres no deseaban tener más hijos, en comparación con el 26% de los hombres y 37% de las mujeres residentes en zonas rurales. Los hombres y mujeres en zonas urbanas son igualmente propensos de aprobar la planificación familiar, mientras entre los residentes rurales, los hombres son significativamente más proclives que las mujeres a aprobar la planificación familiar. En ambas áreas, urbanas y rurales, los hombres son más propensos que las mujeres a conocer una fuente de suministro de anticonceptivos. Análisis multivariados indican que la aprobación de la pareja de la planificación familiar, el conocimiento de una fuente de suministro de estos servicios y la discusión sobre cuestiones de planificación familiar están correlacionados con su deseo de no tener más hijos, y esta relación es particularmente sólida entre los participantes residentes en zonas rurales. La influencia del deseo de fecundidad del cónyuge y de la comunicación relacionada con la planificación familiar sugieren que un esfuerzo concertado con miras a educar a los hombres con respecto a la salud reproductiva e infantil y facilitar la comunicación entre los cónyuges podrían asistir a las parejas a ponerse de acuerdo y a satisfacer sus metas reproductivas.

Résumé

Les réponses d'un échantillon apparié de maris et de femmes ayant participé à l'Enquête démographique et de santé au Pakistan en 1990-1991 sont utilisées pour identifier les fac-

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teurs liés à la fécondité désirée au Pakistan. Dans les milieux urbains, 40% des hommes et 50% des femmes ne veulent plus d'enfants, par rapport à 26% des hommes et 37% des femmes de zones rurales. Dans les zones urbaines, les hommes sont aussi susceptibles que les femmes d'approuver le planning familial,

mais dans les zones rurales, ils sont significativement plus susceptibles que les femmes de l'approuver. Cependant, dans les deux milieux, les hommes sont beaucoup plus susceptibles que les femmes de connaître une source d'approvisionnement. Les analyses multivariées indiquent que l'approbation, par le couple, du planning familial, la connaissance d'une source de planning familial et la discussion du planning familial sont liées au désir de ne plus avoir

d'enfants, et ce lien est particulièrement fort parmi des enquêtés de zones rurales. L'influence du désir de fécondité du conjoint et de la communication concernant le planning familial suggèrent que les efforts concertés visant à éduquer les hommes au sujet de la santé reproductive et infantile et à faciliter les communications entre les maris et les femmes aideraient les couples à s'entendre sur leurs objectifs en matière de reproduction et à les atteindre.