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Is Son Preference Constraining Contraceptive Use in India?

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Abstract

The paper uses the National Family Health Survey (NFHS, 1992-93) data to examine the extent to which sex preferences have constrained the success of the family planning programme and inhibited the acceptance of contraception in the different states of the country. Analysis of data reveals a particulars strong preference for sons in the northern states. It was estimated that if son preference was completely eliminated, contraceptive acceptance would increase by approximately 4 per cent and sterilization by 5 per cent for the country as a whole. However, there were marked state and regional differences. It was concluded that desire for male children has exerted a substantial depressing effect on family planning acceptance, particularly in the northern states.

Parental preferences for sons over daughters has been documented in several countries throughout the world (Freedman and Coombs, 1974; Williamson, 1976; Cleland, Verrall, and Vaessen, 1981). Preference for sons is especially salient in South Asia, East Asia, North Africa, and some parts of Middle East. There is very little preference for sons in the developed countries or in Latin America where a preference for a balanced number of sons and daughters is more common. In India in particular, son preference is very strong and pervasive (Bhatia, 1978; Nag, 1992; Mutharayappa, Choe, Arnold, and Roy, 1997). In fact, several investigators have argued that preference for male children helps to substain high fertility and is likely to act as a potential obstacle to rapid fertility decline.

Previous research on sex preferences for children reveals that couples who have more sons among their surviving children are more likely not to desire additional children (Knodel and Prachuabmoh, 1976; Park, 1978; Malhi, 1993; Rahman and Da Vanzo, 1993; Pong, 1994; Malhi and Singh, 1995). When couples have had one or more son/s they are more likely to accept contraception (Bairagi and Langsten, 1986; Amin and Mariam, 1987; Malhi and Singh, 1994; Malhi, 1995). Having sons not only motivates parents to accept contraception but also reinforces its continuation (Gadalla, McCarthy, and Campbell, 1985; Rajaretnam and Deshpande, 1994) and is also related to the use of more effective birth control methods and acceptance of sterilization (Robey, 1985; Rahman, Akbar, Phillips, and Becker, 1992). Moreover, couples with sons have longer birth intervals and fewer subsequent births (Bairagi and Langsten, 1986; Chowdhury

and Bairagi, 1990). Son preference has also been reported to be an important reason for use of prenatal sex identification tests and sex specific abortions (Pandhya, 1988; Yi et al., 1993).

Although most studies conducted in South and East Asian countries indicate a general preference for sons over daughters, many investigators have noted a co-existing preference for a daughter among couples with several sons. For example, Chowdhury and Bairagi (1990) found in Bangladesh among couples with three or four living children, those with no living daughter were more likely to have an additional birth than those who had a living daughter. Moderate preference for a daughter in India has also been noted (Nag, 1992; Jerath and Malhi, communicated).

The literature suggests that in a society with a strong preference for boys, couples with more girls would continue childbearing till they have achieved their desired number of male children. In the past, however, not much empirical evidence was available to support this contention. Arnold (1985, 1987) developed a quantitative method to estimate the impact of sex preferences on fertility behaviour and applied the method to data collected during 1965-84 from 22 countries all over the world. Arnold (1987) found that the proportion of respondents who did not want more children would increase on an average by 4.5 percentage points in the absence of gender preferences. According to Arnold, this difference would translate into a very small increase in the average number of children wanted. The author argued that the relatively small effect was due to the random biological process, which ensures that most couples would achieve their goal for a minimum desired number of sons and daughters early in their reproductive career by sheer biological chance. Therefore, at any given time there would be only a small proportion of couples who would be motivated to have more children than they would have had without sex preferences. It is noteworthy, however, that the estimated effect were found to be the highest in countries known to have strong son preference, i.e., India, Nepal, and Korea. Evidence further indicates that despite strong preference for male children, several Asian countries like Taiwan, South Korea, and China have experienced substantial fertility declines (Arnold and Liu, 1986; Chang, Freedman, and Sun, 1981).

There is surprisingly little empirical evidence on sex preferences from India, a country where a preference for sons has been often cited as an important factor sustaining high fertility. Yet this proposition has not been subjected to rigorous testing mainly because to date there has been no uniform and reliable data on sex preferences for all the states of the country. Most of the available evidence is based on anecdotal information or on the results of small sample surveys conducted in a few states of the country. The recently conducted National Family

Health Survey (NFHS, 1992-93) covering 89,777 ever married women in the age range of 13-49 offers a unique opportunity to analyze gender preferences in the country. The present paper uses the NFHS data to examine the extent to which sex preferences have constrained the success of family planning programme and inhibited the acceptance of birth control methods in the different states of the country.

Sources of Data and Method

The present paper utilizes data from the National Family Health Survey (NFHS, 1992-93) conducted in all the major states and Union Territories, of the country. The NFHS was a nationally representative survey and covered 89,777 ever married women from 88,562 households. The NFHS was conducted by the International Institute of Population Sciences (IIPS), the Population Research Centres (PRCs) and the USAID. The NFHS asked all the currently married women whether they were currently using any method of birth control. Use of family planning by sex composition and number of living children and method are presented for all the states. The present paper utilizes this data for 16 major states of the country. The states are categorized into North, South, East, and North East regions following Dyson and Moore's (1983) categorization.

Sex Preferences were analyzed by examining the current use of contraception by sex and number of living children for the 16 major states of the country. Arnold's (1985), method was applied to this data to estimate the extent to which overall contraceptive use rate and sterilization acceptance would increase in the absence of sex preferences in the different states of the country. This techniques assumes that in the complete absence of sex preferences, at any parity, all the couples would behave in a similar manner as those who are most satisfied with their existing sex composition i.e., at the maximum rate within that parity. The observed rate of contraceptive acceptance is compared with the expected rate in order to quantify the overall impact of sex preferences on family planning acceptance. Greater the difference between these two rates, higher the impact of sex preferences on family planning practice.

Impact of Sex Preferences on Contraceptive Use

One method of investigating the impact of sex preferences on fertility behaviour is by examining data related to sex composition of living children of couples who are currently practicing contraception. If son preference is important then, within any parity, those with one or more son/s would be more likely to be currently using some method of family planning as compared to those who have no son. Conversely, if the desire for a balanced sex composition affects fertility behaviour then within a given parity, couples who have had either all sons or daughters

would be less likely to accept contraception, particularly sterilization, as compared to those who have had children of both sexes.

In the NFHS, all currently married women, age 13-49, were asked if they were currently using any contraceptive method, traditional or modern. Tables 1 and 2 present the percentage of currently married women who were currently using some (traditional and modern) method of family planning and sterilization by number and sex of living children and state, respectively.

Table 1 reveals that for the country as a whole, at each parity the acceptance of contraception was found to be higher among women who had one or more living son. For instance, at parity two, the use of contraception increased from 32 per cent for women who had no son to 46 per cent for women with one son and to 55 per cent for women with two surviving sons. Similarly, among women with three living children, only 32 per cent of women with no living son were found to be practicing some method of birth control while twice as many with three sons (65 per cent) had accepted contraception.

Table 1: Percentage of Currently Married Women Who Are Currently Practicing Contraception, by Number and Sex Composition of Children States of India 1992-93 (NFHS)

Number and sex of living children													
Region/State	**1 child**			**2 children**			**3 children**				**4 and above children**		
	0	**No son**	**1 son**	**No son**	**1 son**	**2 son**	**No son**	**1 son**	**2 sons**	**3 sons**	**No son**	**1 son**	**2+ sons**
NORTH													
Punjab	2	26	31	35	62	70	(30)	66	82	86	*	62	81
Haryana	3	19	21	26	43	65	(13)	51	82	85	*	56	71
Uttar Pradesh	2	6	9	10	17	27	15	19	35	36	11	21	30
Madhya Pradesh	2	10	9	16	32	53	16	39	70	57	33	48	61
Rajasthan	2	7	7	6	31	34	12	27	57	64	(27)	36	52
Himachanl Pradesh	7	17	23	32	63	78	(19)	66	87	89	*	68	80
Gujarat	3	12	23	26	55	70	18	53	82	84	(11)	57	74
SOUTH													
Kerala	9	36	38	73	80	78	74	82	87	85	(66)	77	67
Karnataka	2	18	19	35	55	67	39	70	80	76	(47)	63	65
Tamil Nadu	3	24	25	49	62	63	51	70	80	74	(60)	68	64
Andhra Pradesh	2	14	16	46	55	56	52	71	80	77	(59)	71	70
Maharashtra	3	18	27	28	48	66	31	64	85	86	(49)	70	80
EAST													
Orissa	3	10	14	20	40	52	22	43	62	60	(43)	51	56

Bihar	2	8	8	15	23	35	4	25	47	38	9	24	36
West Bengal	20	45	54	53	67	75	53	72	78	82	(47)	67	61
NORTH EAST													
Assam	18	24	33	35	47	54	28	48	59	51	(43)	47	51
INDIA	4	17	21	32	46	55	32	51	68	65	35	50	54

* Percentage not shown, based on fewer than 25 cases.

( ) Based on 25-49 cases

List of Sources at the end of article.

These results are even more marked if one examines the data presented in Table 2. Sterilization is by far the most common method of contraception in all the states of the country. Since sterilization is an irreversible method a couple's decision to accept a permanent method of contraception precludes the birth of additional children. Therefore, the family size and sex composition which exists when couples decide to accept sterilization provide some indication that both the desired family size and desired sex composition of children has been achieved.

Table 2: Percentage of Currently Married Women Who Have Accepted Sterilization, by Number and Sex Composition of Children States of India 1992-93 (NFHS)

Number and sex of living children													
Region/State	**1 child**			**2 children**			**3 children**				**4 and above children**		
	0	**No son**	**1 son**	**No son**	**1 son**	**2 son**	**No son**	**1 son**	**2 sons**	**3 sons**	**No son**	**1 son**	**2+ sons**
NORTH													
Punjab	*	2	2	4	16	35	4	26	63	69	+	31	66
Haryana	--	--	2	1	16	46	5	26	70	76	*	32	63
Uttar Pradesh	*	*	2	2	6	17	2	10	28	29	7	13	24
Madhya Pradesh	*	4	2	7	24	45	13	35	65	53	25	43	57
Rajasthan	*	2	2	1	18	30	4	22	54	61	(15)	32	50
Himachal Pradesh	*	2	8	4	33	67	(6)	50	80	84	*	59	73
Gujarat	*	2	8	15	35	57	17	44	79	80	(11)	46	72
SOUTH													
Kerala	2	7	4	53	63	59	61	76	78	82	(59)	71	62
Karnataka	1	6	6	17	45	57	31	66	76	70	(39)	59	62
Tamil Nadu	2	8	8	33	49	51	38	61	71	67	(57)	60	57
Andhra Pradesh	1	10	11	42	52	52	52	70	79	77	(57)	70	68
Maharashtra	*	3	9	9	35	55	20	56	83	85	(43)	66	78

EAST													
Orissa	2	6	6	14	32	45	14	40	57	55	(34)	45	53
Bihar	*	1	2	4	14	24	2	20	43	37	6	19	34
West Bengal	*	4	6	16	30	45	14	52	66	69	(24)	49	45
NORTH EAST													
Assam	3	1	3	2	10	14	4	14	29	31	(13)	17	23
INDIA	1	4	5	16	30	41	20	41	61	59	27	40	48

* Percentage not shown, based on fewer than 25 cases. ( ) Based on 25-49 cases
List of Sources at the end of article.

Table 2 reveals that in the country, sterilization acceptance increased from 16 per cent for women with no living son to 41 per cent with two living sons at parity two, and from 20 per cent for women with no living son to 61 per cent for women with three living sons at parity three. It is noteworthy that a large majority of women with no living son who had accepted some method of contraception were using only temporary methods of family planning, while an overwhelming majority of women with one or more son who had accepted family planning were acceptors of a permanent method of birth control. Overall, the data reveal that women desire at least two living sons, as at all parities those with two surviving sons were the most likely to have accepted contraception (also see Ramesh, Gulati, and Retherford, 1996).

State wise analysis of data reveals three major trends. First, there is a strong preference for sons prevalent in all the states of the country. With no exception, for all parities, women with no son were the least likely to practice contraception. Moreover, within any parity, with few exceptions, the percentage of women accepting contraception or sterilization increased monotonically with the number of living sons. These differences were fairly marked at lower parities, though they tended to decrease with larger family size. However, preference for sons was stronger in the northern and eastern states than in the southern states. The ratio of percentage of women with all sons and no son practicing contraception was higher in the northern and eastern states than in the southern states. According to this measure, son preference emerged particularly strong in the northern states of Rajasthan, Madhya Pradesh, Uttar Pradesh, and Haryana and relatively weak in the Southern states of Kerala, Andhra Pradesh, and Tamil Nadu (also see Bhatia, 1978; Khan and Prasad 1983; Basu, 1992; Mutharayappa et. al., 1997; Jerath and Malhi, communicated).

Second, there is very little desire in the northern states of the country to have a balanced sex composition of children, or at least one daughter. Women with all boys were more likely or almost as likely to have accepted sterilization as compared to those with at least one daughter, except in the state of Madhya

Pradesh. In the state of Madhya Pradesh, a modest preference for a daughter is evident but only at parity three, wherein a substantially lower percentage of couples with all living sons were noted to have accepted sterilization than those with a daughter. It is especially noteworthy that in all the states of north, again except in the state of Madhya Pradesh, sterilization peaks at three living sons. This highlights that most couples in the northern states accept a permanent method of birth control only after they have had several sons. It seems that fertility behaviour is largely determined by number of surviving sons and there is little desire to have a girl, even after several boys. On the other hand, in the southern states and to some extent in the eastern states as well, there is a moderate preference to have at least one daughter after two or more sons. In the south, among women with three living children those with a living daughter were a little more likely to have accepted contraception than those who had no daughter.

Finally, evidence indicates that women in the northern and eastern states consider it important to have not one but least two or more sons. At every parity, a higher percentage of women with two or three sons were likely to have accepted sterilization as compared to women with one son. For example, in the state of Rajasthan, at parity three, only 27 per cent of women with one son and two daughters had accepted some method of birth control, while 57 per cent of women with two sons and one daughter and 64 per cent of women with three sons had accepted some method of family planning. Similar trends are apparent for sterilization acceptance. In contrast in the southern states, except for the states of Maharashtra and Karnataka, women with two sons are either as likely or a little more likely to have accepted contraception, including sterilization, as compared to women with one son. This trend is especially marked at parity two, though not at parity three and above.

Table 3: Effect of Sex Preference on Contraceptive Use, by State (NFHS 1992-93)

% age Practicing Contraception				
Region/State	**Actual**	**In absence of Sex Preferences**	**Difference**	**Number of Responses**
	1	**2**	**Col. 2 - Col. 1**	
NORTH				
Punjab	58.7	65.6	0.9	2879
Haryana	49.7	57.7	8.0	2743
Uttar Pradesh	19.8	23.4	3.6	11014
Madhya Pradesh	36.5	43.8	7.3	5969
Rajasthan	31.8	37.2	5.4	5058
Himachal Pradesh	58.4	66.2	7.8	2819
Gujarat	49.3	58.5	9.2	3636

SOUTH				
Kerala	63.3	66.3	3.0	3978
Karnataka	49.1	54.0	4.9	4076
Tamil Nadu	49.8	53.1	3.3	3636
Andhra Pradesh	47.0	49.3	2.3	3970
Maharashtra	53.7	61.7	8.0	3818
EAST				
Orissa	36.3	41.5	5.2	4025
Bihar	23.1	28.1	5.0	5687
West Bengal	57.4	62.9	5.5	4004
NORTH EAST				
Assam	42.8	46.4	3.6	2741
INDIA	40.6	45.0	4.4	84678

Table 4: Effect of Sex Preference of Sterilization, by State (NFHS 1992-93)

% age Practicing Contraception				
Region/State	**Actual**	**In absence of Sex Preferences**	**Difference**	**Number of Responses**
	1	2	Col.2 -Col. 1	
NORTH				
Punjab	34.0	44.9	10.9	2879
Haryana	34.7	45.9	11.2	2743
Uttar Pradesh	13.1	17.0	3.9	11014
Madhya Pradesh	31.5	39.0	7.5	5969
Rajasthan	27.7	34.0	6.3	5058
Himachal Pradesh	45.8	57.9	12.1	2819
Gujarat	41.0	51.2	10.2	3636
SOUTH				
Kerala	48.3	52.1	3.8	3978
Karnataka	42.5	47.7	5.2	4076
Tamil Nadu	39.5	42.9	3.4	3636
Andhra Pradesh	44.7	47.1	2.4	3970
Maharashtra	46.2	55.4	9.2	3818
EAST				
Orissa	31.6	36.8	5.2	4025
Bihar	18.6	23.4	4.8	5687
West Bengal	30.6	37.1	6.5	4004

NORTH EAST				
Assam	14.4	17.5	3.1	2741
INDIA	30.7	35.7	5.0	84678

Table 3 and Table 4 present the estimates of percentage of couples who would have accepted contraception and sterilization, respectively in the absence of sex preferences following the procedure outlined by Arnold (1985). Using this technique, it is estimated that for the country as a whole, in the complete absence of any sex preference, the proportion of couples accepting contraception would increase from the current 40.6 per cent to 45.0 per cent a modest increase of 4.4 per cent and the percentage of couples accepting sterilization operations would increase from the current 30.7 per cent to 35.7 percent, again a modest increase of 5 per cent.

Again there are marked state and regional variations. The effect of sex preferences on contraceptive use rate is the northern states followed by the eastern states and least in the southern states. The increase in the per cent of women practicing contraception in the northern states ranges from a high of 9.2 per cent (Gujarat) to 3.6 per cent (Uttar Pradesh). It is noteworthy that the increment in contraception acceptance is more in those states with relatively higher overall contraceptive acceptance. The increase in sterilization acceptance in the northern states would be even more marked and ranges from a high of 12 per cent (Himachal Pradesh) to 3.9 per cent (Uttar Pradesh). It seems then that the preference for male children has exerted a substantial depressing effect on the practice of family, planning, and particularly sterilization, in the northern part of the counter. In the east, the effect of sex preferences on family planning acceptance is, however, moderate and does not vary by method of contraception or state. In the absence of sex preferences contraceptive acceptance would increase by approximately 5 per cent a modest increase.

In the southern states, except for the state of Maharashtra, the impact of sex preferences on acceptance of family planning is relatively weak and ranges from a low of 2.3 per cent (Andhra Pradesh) to 4.9 per cent (Karnataka). The increment in the acceptance of sterilization operations in the absence of sex preferences is also not very substantial, again except for Maharashtra and is in the range of 2.4 per cent (Andhra Pradesh) to 5.2 per cent (Karnataka). This is not surprising since son preference is relatively less strong in the southern states of the country.
Several theoretical formulations are available in the literature to account for the relatively stronger desire for sons in the northern states of the country (e.g., Dyson and Moore, 1983; Das Gupta, 1987; Basu, 1992). In the most significant conceptualization, Dyson and Moore (1983) related stronger son preference in the north to relatively lower social status and limited autonomy of women in the

northern part of the country. According to the authors, north and south India differ in kinship and cultural practices. Under the north Indian kinship system, the preferred pattern of marriage is exogamous and post marital residence is typically patrilocal. The practice of marrying into an extended-kin household of strangers physically as well as psychologically isolates the women from her natal kin and hence makes them powerless in their husbands' home. The only source of power for the young brides in the north is their ability to produce children, especially sons. In contrast, under the south Indian kinship system marriages are endogamous and this accords women greater autonomy. Women may inherit property and bride wealth practice is common. Daughters, like sons, can and do render old age support to their parents. Although sons are still favoured in the south a women's position in the family is not determined by her ability to bear sons.

In sum, it seems that women's future decisions to accept contraception are clearly linked to the number of living sons among her surviving children. In a society experiencing fertility transition the preference for at least two surviving sons is going to emerge as a major constraint for the family planning program, especially in the north. In the light of these findings it appears that further increase in the contraceptive prevalence rates in the country may become increasingly more difficult unless there is a decline in the desire for male children. Thus, it is important that the Indian Government instead of propagating the two-child family norm across the board, emphasize those policies that actively enhance women's status and change attitudes towards female children.

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