Effect of Son Preference on Contraceptive Use in Madhya Pradesh

A strong preference for sons may be an obstacle to fertility decline if couples continue having children after reaching their overall family-size goal because they are not satisfied with the sex composition of their children. The present study tries to explore the association between son preference and contraceptive use in the state of Madhya Pradesh, where son preference has been consistently higher and the overall fertility level is quite high. The dataset of National Family Health Survey (NFHS-III) 2005-2006 has been used for the present study. In order to understand the extent of son preference, an index has been computed using information on the sex composition of the ideal number of children. Further, an index called Arnold's index has been computed to measure the influence of son preference on contraceptive use. The study reveals that the main factors affecting contraceptive use are found to be age, number of living children, marital duration, education level, standard of living, mass media exposure and son preference. At each parity, contraceptive acceptance is higher among women, who have one or more living sons and the practice of contraceptive is found to be less among couples with no sons. Acceptance of contraceptive is found to increase monotonically as the number of living sons in the family increased. The Arnold's index depicts that, if gender preferences could be eliminated entirely, contraceptive use would increase by about nine percent. An increase of this magnitude would have a substantial impact on the population growth rate of the state.

INTRODUCTION

India claims to be the first country in world to launch a national programme to limit population growth by making contraceptive services available. The programme has since undergone many changes in the approach and thrust areas including the period during emergency, which is widely regarded as a period of "Coercion" in family planning (Agarwala, 2006). With the creation of separate department of family planning in the mid-1960s, greater emphasis was attached to this programme and since then contraceptive use rate increased steadily. For example, at the end of the first 20 years of the programme the contraceptive prevalence rate (CPR) for all India was just 10 percent but by the end of the next 20 years the CPR increased to 43 percent.

Besides programme factor, number of socio-economic, demographic and cultural factors contribute to the level of contraceptive use rates (Rajaretanam *et al*, 1995). Contraceptive use is higher in urban areas than in rural areas because urban women are more educated than rural

women. Not only urban residence, educational level, and regular media exposure have independent, positive effects on contraceptive use but also husband's education too matters. In all states, Muslims have lower use rates than Hindus (Ramesh *et al*, 1996). Religion has a substantial effect on contraceptive use; it is also observed that members of scheduled tribes have lower contraceptive use than other women.

Prevalence of son preference has been cited as one of the reasons for high fertility and skewed sex ratio in India. It has a powerful influence on the use of contraceptive. Interaction within a culture and society play an important role in shaping the attitude of people towards family and children, and just as culture varies from one region to another, so do the attitudes of the people towards the size and composition of their family. In high-fertility societies, most couples continue to have children regardless of the number of sons and daughters they already have. In low-fertility societies, the influence of son preference is also weak because few couples want to have more than one or two children even if they do not achieve their ideal number of sons and daughters. The effect of son preference on fertility is thought to be most pronounced in countries like India that are in the middle of the fertility transition (Mutharayappa *et al*, 1997).

In India, son derive utility from the fact that in a patrilineal-patriarchal family system, a son is considered essential to perform a number of important social, cultural and religious functions like continuing the family name, providing support to parents in their old age also to perform religious duties like *Pind Daan*. On the other hand a daughter is considered a burden who has to be provided with a heavy dowry and who belongs to her husband's family after marriage. Son preference is quite strong in the northern plains and central upland regions of India (Sinha, 2006)

REVIEW OF LITERATURE

Roy *et .al*, 2003**,** based on study in rural Madhya Pradesh concluded that, reproductive intentions and actual behavior among women show considerable discrepancies and are influenced not only by certain background factors, but also by programmatic factors. A better-quality program that emphasizes expanded and informed choice of methods may reduce the discrepancy.

The most powerful predictors of contraceptive prevalence and total fertility are the percentage of women who receive antenatal care and the percentage of girls age 6-14 who is attending school. A study by Retherford and Ramesh, 1996 shows that antenatal care services are an important means of reaching women with contraceptive services**.** The age of trained dai was also observed to be negatively correlated with contraceptive prevalence. Thus village, which had trained dais between 30-35 years of age, were better motivators and had promoted family planning in their village as compared to those who were above the age of 50 years (Pattanaik and Kaur, 1999).

Dey, 2008, found that women belonging to primary health centre area having better 'infrastructural facilities' use contraceptives in more proportion. Further they mention that in the middle cohort (10-20 years of marital duration) the most important variable is 'son preference' followed by 'age' and 'education'. The contraceptive use is found low among scheduled tribes, Muslims, illiterates, young age 15-24 years, or women having 'no' living children or 'no' living sons. India as a whole and in almost every state, women with two sons and one daughter are least likely to have a fourth child and women with no sons have very high parity progression ratios in all states (Mutharayappa, 1997; Malhi, 1999**)**

Moreover, the use of contraceptive increases with increase in parity, within each parity, it increased with the number of sons, except for a slight decrease among women at parities greater than two who had only sons (Bairagi, 2001).

NEED OF THE STUDY

In India decision making and program implementation are largely decentralized therefore it is necessary to have state-specific study especially on contraceptive behavior. The strength of son preference varies considerably from one part of the country to another, as do socioeconomic conditions and levels of fertility. Madhya Pradesh is one of the EAG (Empowered Action Group) states. It has highest tribal population of India (census, 2001) and the total fertility rate is 3.6 (SRS, 2006), which is higher than the national average. The sex ratio in the state is 919 and about half of the female population is illiterate. There are a number of studies conducted in varies part of India which explain the relation between fertility contraceptive use and son preference (Bairagi, 2001; Bhat and Zavier, 2001; Malhi,1999; Mutharayappa,1997; Rajaretnam,1995;

Reretto,1972; Sinha,2006). However, few studies have been focused on son preference and contraceptive use in Madhya Pradesh. Moreover, recently conducted NFHS survey shows that son preference has consistently higher in Madhya Pradesh. In this context, the present study tries to explore the association between son preference and contraceptive use in Madhya Pradesh**.**

OBJECTIVES

The main objectives of the study are,

1. To understand the socio-economic determinants of contraceptive use and son preference.
2. To examine the effect of son preference on contraceptive use.

DATA AND METHODOLOGY

Data

The data from National Family Health Survey (NFHS-III) 2005-2006 has been used for the present study. The NFHS was a nationally representative sample survey of 99260 ever-married women, ages 15-49. It was conducted in 29 states. This study analyzes data of 7225 ever-married and 5643 currently married women of Madhya Pradesh.

Index for Son Preference

In the NFHS-III, all ever married women were asked about the number of children she would like to have if she could start childbearing all over again, and choose the number exactly. The question was intended to capture preferences regarding ideal family size rather than the desired family size. In the NFHS-III, about 97.3 percent women of Madhya Pradesh gave a numeric answer to the question on ideal family size. They were further asked to report how many of these children they would like to be boys and how many they would like to be girls.

In order to understand the extent of son preference an index has been computed using information on the sex composition of the ideal number of children. If a woman reports that ideal number of sons is grater than the ideal number of daughters for women she is regarded as having a preference for sons.

Arnold's index to measure the influence of son preference on contraceptive use

Further, an index called Arnold's index has computed to measure the influence of son preference on contraceptive use. The critical assumption of this measure is that couples who use contraceptives are satisfied with the sex composition of their children it means all couples at each parity will act in the same manner as those couples at the same parity who are currently most satisfied with the sex composition of their children.

The overall impact of son preference on contraceptive using a 'parity specified contraceptive use approach' as proposed by Arnold is defined as

$$\frac{\sum Ci * Pi}{\sum Pi}$$

Where, Ci = maximum contraceptive use rate at each parity 'i'

Pi = number of women at each parity 'i'

The extent of son preference on contraceptive use = contraceptive use in absence of sex preference (in %) – actual contraceptive use (in %) (Sinha et al, 2005).

Method use

Both bivariate and multivariate analysis has been used for the analysis. In order to examine effect of socio-economic factors on son preference a logistic regression analysis was carried out in which dependent variable is son preference and independent variables are age, number of living children, ideal number of children, desire for more child, household structure, residence, education, religion, caste, standard of living and mass media exposure taken. Another logistic was done in order to understand association between socio-economic factors and contraceptive use in which dependent variable is use of contraceptive. In the analysis users has been coded as 1 and non-users as 0.

FINDINGS AND DISCUSSIONS

Women's socio-economic and demographic characteristics and Son Preference

Table 1 shows that the percentage of women who reported more boys than girls in their ideal family size by background characteristics. In age group 30-39 son preference is high and for 15-19 age group is low but son preference was decline for age 45-49 (23.7%) not because of son preference is lower among higher age women but because of the response of ideal family size and ideal number of sons in ideal family size was influenced by women actual fertility performance. Son preference is also affected by number of living children and desire for additional child, the number of living children increases son preferences also increases but after achieving three children son preference decline. For instant, son preference increases from 15.8 percent for women have no children to 45.6 percent for women having three children. Son preference also higher for those women who do not decided for additional child as compared to women who want and women who do not want additional child.

The proportion of women wanting more boys than girls is substantially higher among women who reported their ideal family size in odd numbers compared with women who reported this in even numbers. This naturally happens because an even number can be divided into two equal integers, while an odd number cannot be so divided. Women who belonging to nuclear family are having a high son preference as compared to those women who belonging non-nuclear family because in nuclear family women depend on husband and she want old age security that's why they want more sons. Chin et .al also argued that in area where women are economically dependent on their male family members, women will be motivated to want a greater number of children, especially sons who are valued as an insurance against the risk of divorce, widowhood and old age.

Place of residence is also playing important role in son preference. The analysis shows that son preference is higher among rural women (34.3%) as compared to urban women (21.9%). The level of education of respondent makes difference in the extent of preference for sons. The extent of son preference was lower among women have higher education than the illiterate

women that is nearly 41 percent illiterate women having son preference followed by 31 percent primary educated women and nearly 6 percent higher educated women have son preference. Hindu women have higher son preference than the Muslims and others. The extent of son preference is slightly higher among the schedule tribe (37.3%) compared with schedule caste (32.3%) and other backward class (30.8%) but the difference is higher among schedule tribes (37.3%) and others (23%). Women with the higher level of living were found to have lesser degree of so preference compared to those with lower standard of living.

Logistic regression for son preference

In this study we apply three models. In the first model only demographic variables are taken, in second model social-economic variables, in third model all demographic, social and economic variables. After comparing three models with respect to -2 log likelihood value it was found that third model is best in all three and therefore only third model has been considered. In this model dependent variable is son preference, calculated by if a women had reported higher number of sons than daughter in her ideal family size value of one was assigned and zero otherwise.

Logistic regression analysis shows that age and marital duration has positive effect on son preference but this relation is not statistically significant. Desire for additional child is most important factor for son preference. The odds of women who do not want additional child to son preference is likely to be 34 percent lower than those women who want additional child, this relation is more significant. Urban women are less likely to have son preference as compared to rural women. Religion and caste have no significant relation with son preference. The result shows that education and mass media exposure have strong negative effect on son preference. For example among women educated upto secondary level 46 percent and higher educated women 68 percent are less likely to have son preference as compared to illiterate women. Women who have full mass media exposure are 44 percent less likely to have son preference as compared to women having no exposure.

Socio-economic and demographic determinants of contraceptive use

The current use of contraceptive is almost 56 percent in Madhya Pradesh. Age was found to be one of the important factors. Contraceptive prevalence rate increases with the increases of age and reaches its peak at the age group 35-39 than declines. However, peak of using modern spacing method is found at age group 25-29. Use of permanent method is higher for the age group 45-49.

Urban women usually have better access than rural women to contraceptive, to information about contraceptive and to healthcare providers in case they have problem using contraception. For these reasons, urban/rural residence is likely to affect contraceptive use. For example, 61 percent women of urban area are using contraception with respect to 54.1 percent in rural area. Use of spacing method is high in urban area but use of permanent method is high in rural area. Respondent's education influences the use and type of contraceptive use. Terminal method is quite popular among illiterates. However, traditional and modern method seems to be more popular among the literates because, it is expected that the education level increase the awareness and understanding among the couples about the different methods improves. That is, use of sterilization is higher for illiterate women (51.1%) then the high educated women (25.6%) and use of other temperature modern method is higher for educated women (33.6%) as compared to illiterate (2.7%) women. Not only women education influence contraceptive use, partner education is also influencing the contraceptive use. Partner education shows same pattern is education level increases use of any method increases. Acceptance of sterilization is decreasing with education level increase.

There exists differences in contraceptive use by education this may be because level of education is likely to affect her knowledge of contraceptive method in side effects, her preconceptions about family planning and a hast of other factors. Among the other social factors religion and caste play a major role especially in a country like India where among different religion and caste group the cultural connotations and taboos vary significantly. Thus these two factors may determine the use of contraceptive (Das, 1997). Present analysis shows that use of spacing method was higher among both the Muslim and others religious groups as compared to Hindu. The prevalence rate for permanent method was higher by 15 percent among the Hindu as compared to the Muslims. Use of permanent method almost same for Schedule Caste (43.7%),

Schedule Tribe (43.8%) and higher class (41.4%) but slightly higher for other backward class (49.3%) but the use of spacing method is higher for higher caste women.

With the increase in standard of living, contraceptive use increases. Almost 67 percent of women who belonging to high SLI are using contraceptive followed by medium SLI (55.5%) and low SLI (51.7%). The use of permanent method is found to be almost same in all SLI, but the use of modern method is higher for high SLI. Partner occupation also plays an important role in use of contraception. Finding shows that if partner is engaged in service sector than the contraceptive use is high. Contraceptive use is almost same for partner working in other sector and not working because of partner engaged in service sector belonging to urban areas. In joint family (Non-nuclear) decision for using contraception is taken by family members but in nuclear family decision is taken either by husband or wife that's why contraceptive use is high in nuclear family (61.3%) that the joint family (53.7%).

The number of living children is one of the major determinants of use and non-use of contraception. Contraceptive prevalence rate increases with increase in number of children, upto three children, their after it declines for example, contraceptive use increases from 7 percent among women with no surviving child to almost 25 percent among women having one child, and it goes to 63 percent among women having two serving children and about 76 percent among women with three surviving children. The use of modern method is high among the women having the two children (14.1%) where as use of sterilization is higher for women having three children (69.2%). Contraceptive use is also influence by desire for additional child and son preference. Analysis shows that 71.6 percent women who do not want additional child use contraceptive in those women dominant method is sterilization almost 61.5 percent women who do not want additional child are using sterilization as compared to women who want additional child (11.5%) using contraceptive mainly modern spacing method (7.5%). Similar for the son preference, women having son preference are using contraception is lower than women not having son preference.

The use of contraceptive, particularly spacing method is more popular in those women having a full mass media exposure in comparison to not exposure where as use of permanent method is higher in those women having a no media exposure because of knowledge of other contraceptive is less. Use of permanent method increases with the increases in marital duration

and use of spacing method decreases the marital duration increases. That is, use of permanent method increase from almost 13 percent to 67 percent when marital duration increase from 0 -10 years to 20+ years where as use of traditional method and modern method decreases .

Logistic regression for contraceptive use

In order to understand the importance of explanatory variable, when taken together, explaining the variation in contraceptive use, the logistic regression analysis is used. In this analysis dependent variable is contraceptive use. The results of logistic regression show that among the demographic variables, women age appears to have a significant and positive effect on contraceptive use, there is clear evidence to show that the sex composition of living children is an important factor motivating women to use contraception. From Table 4 it is seen that the highly significant and positive relation between number of living sons and contraceptive use whereas negative and non-significant effect of number of living daughter. Women with 10-20 years of marital life are more likely 78 percent to use contraceptive as compared to women with 0-10 years of marital life. The likelihood of contraceptive use is 1.2 times for women having son preference as compared to those women having no son preference.

Religious belief and caste play a vital role in determining attitudes towards the desire number and sex of the children and hence to the use of contraceptive. Muslim women are less likely to use contraception than Hindu women. Women belonging to schedule caste and schedule tribe are also less likely to use contraceptive as compared to other caste women. The education also have positive effect on contraceptive use, highly educated women are 31 percent more likely to use contraceptive in comparison with illiterate women but this relation is not significant statistically.

Likelihood of contraceptive use is 1.5 times for women belonging to high SLI as compared to women belonging to low SLI, which is statistically significant. Exposure to media has a strong positive effect on contraceptive use and the relationship is significant. Women have full exposed to media is almost two times more likely to use contraceptive than women who have no exposure to media.

Son Preference and Contraceptive Use

In this study Arnold's index is used to estimate how the sex composition of surviving children affects the contraceptive use. This method is most appropriate in countries where gender preference is fairly homogeneous. This method can therefore be applied to India, with its strong and pervasive bias in favor of sons.

Table 5 present the percentage of women using contraceptive by number and sex of their living children for the state of Madhya Pradesh. The table indicates that at each parity contraceptive acceptance was higher among women, who had one or more living sons and the practice of contraceptive is found to be less among couples with no sons. For example, at parity two, contraceptive use increased from 24 percent for women who had no sons to 64 percent for women with surviving sons to almost 77 percent for women with two surviving sons. Similarly, women with three living children, only one fifth of women who had no living sons were using contraceptive while four times as many women had three sons had accepted contraceptive.
Acceptance of contraceptive was found to increase monotonically as the number of living sons in the family increased but it can be also noticed that among those women (with three children) who do not have any daughter, there is a small drop in total contraceptive prevalence rate. This drop may be due to the urge to have one daughter for social, ritual or psychological reasons. Arnold's index shows that the proportion of women practicing contraception would have increased by nine percent if there had been no preference for children of particular sex.

SUMMARY AND CONCLUSIONS

A strong preference for sons may be an obstacle to fertility decline if couples continue having children after reaching their overall family-size goal because they are not satisfied with the sex composition of their children. An attempt has been made in this study to explore the relationship between son preference and contraceptive use. The study reveals that current use of contraceptive among currently married women in Madhya Pradesh is lower than the national average. The main factors affecting contraceptive use are found to be age, number of living children, marital duration, education level, standard of living mass media exposure and son preference.

Desire for additional child is most important factor for son preference. It plays a significant role to having son preference. Urban women are less likely to have son preference as compared to rural women. The result shows that education and mass media exposure have strong negative effect on son preference. Women who are educated upto secondary level and higher educated women are less likely to have son preference as compared to illiterate women. Women who have full mass media exposure are less likely to have son preference as compared to women having no exposure.

Women age appear to have a significant and positive effect on contraceptive use. There is clear evidence to show that the sex composition of living children is an important factor motivating women to use contraception. Further it has been that there is highly significant and positive relation between number of living sons and contraceptive use. Women with 10-20 years of marital life are more likely to use contraceptive as compared to women with 0-10 years of marital life. The likelihood of contraceptive use is lower for women having son preference as compared to those women having no son preference. Religious belief and caste play a vital role in determining attitudes towards the desired number and sex of the children and hence influencing the use of contraceptive. The odds of Muslim women are less likely to use contraception than Hindu women. Women belonging to schedule caste and schedule tribe are also less likely to use contraceptive as compared to other caste women. Exposures to media and standard of living have a strong positive effect on contraceptive use. The contraceptive use for women having full exposure to media is likely to be more than women who have no exposure to media.

At each parity contraceptive acceptance is higher among women, who have one or more living sons and the practice of contraceptive is found to be less among couples with no sons. Acceptance of contraceptive is found to increase monotonically as the number of living sons in the family increased but it can be also noticed that among those women (with three children) who do not have any daughter, there is a small drop in total CPR. This drop may be due to the urge to have one daughter for social, ritual or psychological reasons. Arnold's index shows that the proportion of women practicing contraception would have increased by nine percent if there had been no preference for children of particular sex.

From the study it can be concluded that there is significant association between son preference and contraceptive use. Hence, due emphasis is required on these emerging issues. As Arnold's index depicts that use of contraceptive can be increased among women if there is no preference for sex composition of their children, well thought steps should be taken in this direction. Apart from policies and programmes, the mass should be educated about the repercussion; the son preference has on the society. All the efforts to educate the people should be started from the grass-root level by reaching out to even the most outreach people. Efforts should be stimulated to fully understand the determinants and antecedents of son preference and non use of contraceptives.

References:

Agarwala D, 2006, Meeting contraceptive needs- emerging family planning priorities in India, Contraception past, present and future.

Banerjee Bratati, 2004, Socioeconomic and cultural determinants on acceptance of permanent method of contraception, Journal of family welfare, vol. 50(1).

Bairagi Radheshyam, 2001, Effects of Sex Preference on Contraceptive Use, Abortion and Fertility in Matlab, Bangladesh, International Family Planning Perspectives Vol. 27(3).

Bhat P.N. Mari, Zavier A.J. Francis, 2003, Fertility decline and gender bias in Northern India, Demography, vol. 40.

Cain M, Khanam SR, Nahar S, 1979, Class patriarchy and women's work in Bangladesh, Population and development review, vol. 5.

Day AS, 2008, Programme Efforts and Contraceptive Use in Madhya Pradesh, Population Research Centre, Ministry of Health and Family Welfare, Government of India.

Malhi Prabhjot, Raina Gayatri, Molhotra Dalip, Jerath Jagat, 1999, Preference for the sex of children and its implication for reproductive behaviour in urban Himachal Pradesh, Journal of family welfare, vol. 45(1).

Mishra Vinod K, Retherford Robert D, Nair PS, Feeney Griffith,1999, Reasons for discontinuing and not intending to use Contraceptive in India**,** NFHS Subject Report No. 13, International Institute for Population Sciences Mumbai, India.

Mutharayappa Rangamuthia, Choe Minja Kim, Arnold Fred, Roy T K,1997, Son Preference and Its Effect on Fertility in India, National Family Health Survey Subject Reports Number 3, International Institute for Population Sciences Mumbai, India

International Institute for Population Sciences (IIPS) and Macro International, 2007, National Family Health Survey- 3 Reports (2005-2006), Mumbai, IIPS.

Pattanaik BK, Kaur Kuldip, 1999, A correlative study of factors associated with contraceptive prevalence differentials in rural Uttar Pradesh, Journal of family welfare, vol.45(1).

Rajaretnam T, 1995, Family size desire, sex preference, socio-economic condition and contraceptive use in rural Karnataka, India, Demography India, vol. 24(2).

Reretto R, 1972, Son preference and fertility behaviour in developing countries, Studies in family planning, vol. 3(4).

Ramesh BM, Gulati SC, Retherford Robert D, 1996, Contraceptive use in India, NFHS Subject Report No. 2, International Institute for Population Sciences Mumbai, India

Roy TK, Ram F, Nangia Parveen, Saha Uma, Khan Nizamuddin, 2003, Can Women's Childbearing and Contraceptive Intentions Predict Contraceptive Demand? Findings from A Longitudinal Study in Central India, International Family Planning Perspectives Vol. 29(1).

Sinha Babita, 2006, Contraceptive use and desire for additional children as indicators of son preference, India and its states, Man and development, vol. 28(3).

Sinha B, Bhat PNM, Gulati,SC,2005, Son Preference and Gender Bias in Demographic Behaviour, Report No.6, Population Research Centre, Institute of Economic Growth, Delhi, India.

Table 1: Percentage distribution of ever married women who want more sons than daughters by background characteristics:

Background characteristics	Percentage	Total number of women
Age		
15-19	17.1	1416
20-24	35.5	1289
25-29	31.7	1187
30-34	40.3	996
35-39	41.2	900
40-44	39.5	690
45-49	23.7	746
No of living children		
0	15.8	1948
1	24.3	798
2	25.8	1293
3	45.6	1427
4	39.4	911
5+	44.8	849
Ideal no of children		
0	0.0	37
1	27.4	343
2	5.6	3976
3	88.9	1814
4	18.7	859
5+	73.2	179
Desire more child		
Don't wanted	31.4	5667
Wanted	28.2	1506
Undecided	37.3	51
Household structure		
Nuclear	32.5	3579
Non-nuclear	29.9	3140
Total	**30.2**	**7225**

Table 1: Contd …

Background characteristics	Percentage	Total number of women
Residence		
Urban	21.9	5160
Rural	34.3	2065
Education		
No education	41.4	3619
Primary	31.5	1229
Secondary	16.0	1963
Higher	5.6	414
Religion		
Hindu	31.6	6531
Muslim	27.7	499
others	10.8	195
Caste		
Schedule caste	32.3	1236
Schedule tribe	37.3	1563
Other backward class	30.8	2873
Others	23.0	1553
Standard of Living Index		
Low	38.0	2179
Medium	35.7	2245
High	20.4	2281
Mass media exposure		
No exposure	38.6	3417
Partial exposure	25.6	3297
Full exposure	11.7	511
Total	**30.2**	**7225**

Table 2: Multivariate analysis of son preference among ever married women

Explanatory Variables	Exp(B)
Age	1.086
Square of women age	0.999
No. of living sons	1.481***
No. of living daughter	1.009
Marital duration	
0-10®	
10-20	1.014
20+	1.138
Desire for Additional Child	
Want®	
Not want	0.665***
Place of Residence	
Rural®	
Urban	0.823**
Religion	
Hindu®	
Muslim	1.212
others	0.59
Caste	
Others®	
schedule caste	0.933
schedule tribe	0.968
other backward class	0.942
Educational	
illiterate®	
Primary	0.838
Secondary	0.548***
Higher	0.325***
Standard of Living	
Low®	
Medium	1.051
High	0.843
Mass Media Exposure	
No exposure®	
Partial exposure	0.883
Full exposure	0.54***
-2 loglikelyhood	5331.297

Note: Dependent Variable: 0-no son preference, 1- son

*** $p<0.01$, ** $p<0.05$

® Reference category

Table 3: Percentage of Currently Married Women Using Contraceptive by background Characteristics

Background characteristics	Not Using	Using Any Method	Permanent method	Traditional method	Modern method	Total Women
Age						
15-19	90.9	9.1	0.5	3.8	4.8	394
20-24	75.6	24.4	12.4	3.4	8.5	1055
25-29	44.0	55.9	41.0	3.1	12.0	1111
30-34	25.8	74.1	62.5	4.4	7.2	952
35-39	23.5	76.5	65.9	3.2	7.4	835
40-44	31.4	68.5	62.7	1.7	4.1	687
45-49	30.3	69.7	66.8	2.0	1.0	611
Residence						
Urban	38.9	61.1	38.4	4.9	17.9	1480
Rural	45.9	54.1	48.1	2.5	3.4	4164
Education						
No education	44.1	55.9	51.1	2.1	2.7	3247
Primary	45.9	54.1	44.7	3.0	6.4	971
Secondary	45.4	54.6	35.1	4.8	14.6	1175
Higher	30.4	69.6	25.6	10.4	33.6	250
Partner's Education						
No education	48.0	52.0	47.9	2.0	2.1	1777
Primary	43.4	56.6	49.6	2.4	4.6	1106
Secondary	44.1	55.9	44.7	3.0	8.2	2142
Higher	33.5	66.6	34.5	8.5	23.5	603
Religion						
Hindu	44.5	55.5	46.4	3.1	6.1	5152
Muslim	45.1	54.9	31.4	3.8	19.7	370
others	24.8	75.2	53.7	4.1	17.4	121
Caste						
Schedule caste	48.4	51.6	43.7	2.1	5.8	975
Schedule tribe	51.8	48.2	43.8	2.8	1.6	1223
other backward class	41.1	58.9	49.3	3.0	6.7	2302
others	38.1	61.9	41.4	5.0	15.4	1146
Standard of Living Index						
Low	48.3	51.7	47.6	2.1	2.1	1785
Medium	44.5	55.5	47.7	2.7	5.1	1808
High	33.4	66.6	47.1	4.4	15.1	1638
Total	**44.1**	**55.9**	**45.6**	**3.2**	**7.2**	**5643**

Table 3: Contd …

Background characteristics	Not Using	Using Any Method	Permanent method	Traditional method	Modern method	Total Women
Partner 's occupation						
Not working	44.7	55.8	43.7	4.9	6.8	103
Agriculture	46.4	53.6	47.7	2.6	3.3	2350
Services	33.7	66.3	42.7	5.8	17.8	686
Labour & others	44.8	55.2	44.3	2.9	8.0	2504
Household structure						
Nuclear	38.7	61.3	52.3	2.8	6.2	2765
Non-nuclear	46.3	53.7	42.0	3.4	8.3	2477
No of living children						
0	93.2	6.8	0.5	3.3	3.0	631
1	75.2	24.9	7.2	4.8	12.8	745
2	37.4	62.6	44.1	4.4	14.1	1226
3	24.2	75.8	69.2	2.3	4.4	1376
4	25.5	74.5	68.4	1.4	4.8	860
5+	41.0	59.0	53.7	3.0	2.4	807
Desire more child						
Don't wanted	28.4	71.6	61.5	2.9	7.2	4180
Wanted	88.5	11.5	0.0	4.0	7.5	1419
Undivided	95.6	4.4	0.0	0.0	4.4	45
Mass media exposure						
No exposure	49.7	50.3	46.6	1.8	1.9	2910
Partial exposure	38.9	61.1	45.4	4.5	11.2	2417
Full exposure	32.0	68.0	37.3	5.1	25.6	316
Son Preference						
No	45.6	54.4	41.8	3.8	8.9	3694
Yes	41.2	58.8	52.7	1.9	4.1	1950
Marital duration						
0-10	71.6	28.4	13.5	3.9	11.1	1969
10-20	31.0	69.0	58.6	2.9	7.6	1851
20+	27.8	72.2	67.0	2.6	2.6	1823
Total	**44.1**	**55.9**	**45.6**	**3.2**	**7.2**	**5643**

Table 4: Multivariate analysis of contraceptive use among currently married women

Explanatory Variables	Exp(B)
Age	1.589***
Square of women age	0.994***
No. of living sons	1.851***
No. of living daughter	0.961
Place of Residence	
Rural®	
Urban	1.073
Marital duration	
0-10®	
10-20	1.789***
20+	1.958***
Son Preference	
Yes®	
No	1.204**
Religion	
Hindu®	
Muslim	0.732**
others	0.966
Caste	
Others®	
schedule caste	0.812
schedule tribe	0.71**
other backward class	1.092
Educational	
illiterate®	
Primary	1.035
Secondary	1.125
Higher	1.317
Standard of Living	
Low®	
Medium	1.083
High	1.485***
Mass Media Exposure	
No exposure®	
Partial exposure	1.596***
Full exposure	1.907***
-2 log likelihood	**4797.297**

Note: Dependent Variable: 0-not use, 1-use

*** $p<0.01$, ** $p<0.05$

® Reference category

Table 5: Percentage of Currently Married Women using Contraceptive by Number and Sex of Living Children

Number and Sex of Living Children	Percent using Contraceptive		Total
	Currently	In absence of sex Preference	
No children	**6.8**	6.8	631
One child	**24.9**	28.9	746
No Son	20.2		
One Son	28.9		
Two child	**62.6**	76.6	1225
No Son	24.1		
One Son	63.8		
Two Son	76.6		
Three child	**75.8**	86.9	1376
No Son	20.0		
One Son	67.9		
Two Son	86.9		
Three Son	83.5		
Four child	**74.5**	79.9	860
No Son	12.1		
One Son	71.1		
Two Son	78.4		
Three Son	79.9		
Four Son	79.3		
Five(Plus) child	**59.0**	70.0	807
No Son	44.3		
One Son	56.0		
Two Son	70.0		
Three Son	67.7		
Four plus Son	33.3		
Total	**55.9**	**64.6**	5645
Impact		**8.7**	

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