RESEARCH ARTICLE

IMPACT OF DIFFERENT DEMOGRAPHIC AND SOCIO-ECONOMIC FACTORS ON SON PREFERENCE IN MANIPUR, INDIA

Gogoi, K., *Hazarika, P. J., Sanu S. and Hazarika, J.

Department of Statistics, Dibrugarh University

ARTICLE INFO	ABSTRACT
	Son preference is the obsession for male child among couples. This obsession is basically seen in Indian society. The couples generally prefer two children. The four probable chronological combinations of having two children are son, son (SS); son, daughter (SD); daughter, son (DS) and daughter, daughter (DD). The preference for son stimulates the couple to go for third child. This mainly happens if the first two children are girls. In the hope for son, a couple goes on expanding their family. However, there are other socio-economic and demographic factors that affect the son preferences. With this background, the investigators carried out an empirical investigation at Manipur, India where it is assumed that son preference means preference for atleast one son in the family. The objective of the study is to trace the determinants of son preference as an indicator of fertility differential. This paper is based on the above investigation. Information are collected through a cross-sectional study using a well structured questionnaire from 530 women of reproductive span. As findings of this study, using a generalized regression model, it is observed that education, religion, income, locality (rural/urban) and communities are determinants of son preference. On the other hand, the place of residence (hill/ plains), caste and age of mother have no role on son preference. In this context, the role of education is noteworthy.

INTRODUCTION

Fertility is the major dynamic element which affects the demographic character of population among the three demographic variables namely fertility, mortality and migration. "To understand fertility is, therefore, to understand not only a major portion of all demographic behaviour, but a fundamental element in social structure and human condition, generally". Understanding fertility behaviour has become a major concern in many countries and, indeed, in the world. Among the various factors of fertility, preference of son is also a factor which is a major concern in the Indian society. Several studies have found that most Indian couples have a strong preference for sons over daughters. Since time immemorial, the preference for male child is prevalent among couples. This preference is mainly shaped by the couple's cultural believes, religious traditions and community norms. Patrilineal societies hold the view that boys are responsible for carrying forth the family traits from one generation to another. Moreover, boys are seen as economic assets for the family. So, couples desire for a son. In an attempt to have sons, many couples continue to have children after achieving their desired family size.

Corresponding author: Hazarika, P. J.
Department of Statistics, Dibrugarh University

Although with changing times a lot have been said and done for gender equality and girls and boys are seen at par with one another but still couples prefer a boy child. It is because of this preference for a boy that couples go on expanding their family. It is seen that a couple with a girl child as their first child is more likely to go for second child than a couple with a boy child as their first child. When the fertility is high there is not much of sex preference for children. When the fertility declines a relatively greater demand for son than daughter is noticed. In case of intentions about 20% of Indian couples want more sons than daughters, but only 2% to 3% of them want more daughters than sons (IIPS, 2007). In Manipur, 31.2% of ever married women who want more sons than daughters according to NHFS-3, 2005-06 which is declining from that of 36.5% in the NFHS-2: 1988-99 and 43.4% in NFHS-1: 1992-93 (IIPS, 2008). Of the three main aspects of demography, fertility is the only way for biological replacement of human being in order to continue its existence on earth. The fertility rate of population is influential by various factors directly or indirectly and the degree of influence differs from population to population or from society to society. Parents' preference for son over daughter is also one of the important factors affecting fertility prevailed in many communities and becomes a key hindrance in controlling populations growth in many under developed and developing

countries like India. The notion of son preference ultimately affects the demographic behaviour. It may reduce the sex ratio or increase the total fertility rate beyond the expectation. Some empirical studies (Rai *et al.*, 2014; Klaus, 2014; Bhat and Zavier 2003: Pande and Astona 2007, Priti *et al.*, 2016) have been carried out to study impact of demographic and socio economic factors on son preference at national and international level. So far as our study area, Manipur is concerned, the works of Nath and Singh (2012), Singh and Singh (2012), Baite and Singh (2013), Ginzamang (2014) and Mohammad *et al.* (2014) are to be noted. In these studies, among others, son preference was found as one of the most important determinants of fertility indices and most important factors among the socio – demographic determinant of fertility differentials in Manipur. Thus, findings of the above studies reveal that son preference is an indicator of fertility differentials. However no attempt has been made to trace the determinants of son preference in this area.

Keeping all these points in mind, in this paper, an attempt has been made to study the impact of different socio-economic and demographic factors on son preference considering all the communities, place of residence, locality and other factors to reverify some earlier findings and to check is there any temporal effect. Also, it is expected that as an outcome of this work, we can suggest Planners/Executors to work on determinants of son preference to reduce intensity of son preference and thereby reduce fertility.

MATERIALS AND METHODS

In this current study, we have considered a sample of 530 respondents (mother) selected by multistage sampling technique considering its suitability. To determine the size of the sample the following formula has been employed:

$$n = \frac{Z^2 pq}{\alpha^2}$$

where,

α = the margin of error
p = No. of women in the age group (15-49)(eligible women)/ Total Population.

Total population = Number of the household taken × Mean household size

$$q = (1 - p).$$

Using this formula in our study the sample size becomes 302. But it is multiplied by design effect (taking the design effect as 2). After multiplying by design effect the calculated sample size is fixed as 604. The design of the study is household based as the required data were collected from the households. A questionnaire has been prepared following the guidelines of National Family Health Survey (NFHS), India. There are altogether nine districts in Manipur four in the plain area and five in the hilly areas. The districts in the plain are Imphal East, Imphal West, Thoubal and Bishnupur districts. The districts in the hill are Ukhrul, Tamenglong, Senapati, Chandel and Churachandpur districts. Two districts from the hill and two districts from the plain are selected randomly. As per the sample size of 604, information were to be collected from 211 and 393 hills and plains respondents respectively under

proportional allocation. Selecting 15 respondents from each locality, total no of localities were 14 and 26 from hills and plains respectively. Localities were again selected with probability proportional to size. From these localities households were selected randomly and only one eligible respondent is interviewed from each household. The final number becomes as 201 and 329 for hills and plains respectively. But, due to non-response, non-availability and remoteness, the ultimate sample size reduces to 530. However, this sample size is acceptable as the design effect is still 1.75. The statistical analyses have been made using both the techniques- binary outcomes using contingency table methods and multiple logistic regression analysis by taking all predictors at a time. The Table 1 elucidate different variables used along with their codes.

RESULTS AND DISCUSSION

In this section, at the very outset, frequency distributions of the collected data have been made according to the variables and categories defined in section 2 along with test statistic values and corresponding p-values and the same is presented in table 2. This table is a combination of 8 contingency tables. This table has been used for testing independence of two attributes; one of them is son preference invariably. Also, in order to fit multiple logistic regression model, the maximum likelihood method has been adopted. However, in both the cases SPSS software has been utilized. The Table 2 depicts that 65.28% of the respondents are in favour of at least one son. So far as, sex preference is concerned it is not a good indication. In Table 2 it can be seen that the son preference at the lower educational level (i.e. Less than 10th standard) is very high which is 71.10 percent but for 10th standard and above it reduces to 58.00 percent. Chi-square test signifies that there is an association between son preference and educational level of the female of Manipur. In other words, the level of education has impact on son preference. Majority of the son preferred population of Manipur is dominated by schedule tribe. It is observed that the majority of this section (71.60 %) of population prefers son whereas this percentage is 60.50 percent for other castes. Their social custom and rituals are different from others. Their social believes and need of male person for cultivation may be another hidden cause of son preference. The majority of the schedule tribe people live in hill areas. So, they may prefer more male persons in the family for security reasons. So far as different communities are concerned, it is observed that the Naga community desire for son is higher than the other communities like Meeteis and others. In Manipur the majority of population of Naga are belonging to Christian religion. The findings of the present study reveal that the fertility is higher among the inhabitants of this community. So, son preference may be one of the reasons of high fertility in Naga community. Although, son preference is less in percentage among Meeteis compared to Naga and other communities (dominated by Muslim), it is not up to the mark because more than fifty percentage of these communities also in favour of at least one son. The test of significance (p<.01) also shows association between son preference and communities of Manipur. The respondents are classified according to age in two mutually exclusive classes- (15 to 35) years and 35 years and above.

Table 1. Variables use in studying son preference and their types and Codes

Variables	Type of Variable	Categories	Scale	Codes
Son Preference	Explained	Preference for at least one son	Nominal	0
		Otherwise[R]		1
Monthly Income (Rs.)	Explanatory	less than 5000	Ordinal	0
		5001-10000		1
		10001-20000		2
		20001-30000		3
		30000 and above[R]		4
Age of Mother	Explanatory	15-34	Ordinal	0
		35 and above[R]		1
Education	Explanatory	Less than 10th Standard	Ordinal	0
		10th Standard and above[R]		
				1
Caste	Explanatory	ST	Nominal	0
		Others[R]		1
Communities	Explanatory	Meeteis	Nominal	0
		Nagas		1
		Others[R]		2
Place of residence	Explanatory	Rural	Nominal	0
		Urban		1
Localities	Explanatory	Hill	Nominal	0
		Plan[R]		1
Religion	Explanatory	Hindu	Nominal	0
		Islam and others		1
		Christian[R]		2

Table 2. Frequency Distribution (Cross Tables) of Son Preference with respect to Different Socio-economic and Demographic Variables

	Characteristics	Son Preference				Chi-square value	p-value
		At least one son		No preference			
		Frequency	Percentage	Frequency	Percentage		
Income	less than 5000	87	66.90%	43	33.10%	15.669	
	5001-10000	123	71.50%	49	28.50%		
	10001-20000	87	63.50%	50	36.50%		0.003
	20001-30000	34	65.40%	18	34.60%		
	more than 30000	15	38.50%	24	61.50%		
Age of the Mother	15-34	137	67.8%	65	32.2%	0.928	0.192
	35 and above	209	63.7%	119	36.3%		
Education	Less than 10th standard	209	71.10%	85	28.90%	9.818	0.001
	10th standard and Above	137	58.10%	99	41.90%		
Caste	ST	164	71.60%	65	28.40%	7.135	0.005
	Others	182	60.50%	119	39.50%		
Community	Meeteis	152	56.7%	116	43.3%	21.69	
	Nagas	136	70.5%	57	29.5%		0.000
	Others	58	84.1%	11	15.9%		
Place of Residence	Rural	261	63.2%	152	36.8%	3.59	0.036
	Urban	85	72.6%	32	27.4%		
Locality	Hill	142	70.6%	59	29.4%	4.11	0.026
	Plain	204	62.0%	125	38.0%		
Religion	Hindu	134	58.0%	97	42%	9.562	0.008
	Islam and others	59	71.1%	24	28.9%		
	Christian	153	70.8%	63	29.2%		
	Overall	346	65.28%	184	34.72%		

Table 3. Result of Logistic Regression

Variable		B	S.E.	Wald	d.f.	Sig.	Exp(B)	95.0% C.I. for EXP(B)	
								Lower	Upper
Education	Less than HSLC	.565	.206	7.567	1	.006	1.760	1.176	2.633
	HSLC and more					Reference			
Caste	ST	-1.379	.896	2.367	1	.124	.252	.043	1.459
	Others					Reference			
community	Meeteis	-2.307	.610	14.315	1	.000	.100	.030	.329
	Naga	-.504	.896	.316	1	.574	.604	.104	3.497
	Others					Reference			
Religion	Hindu	.668	.920	.527	1	.468	1.951	.321	11.839
	Islam and others	.251	.874	.083	1	.004	2.886	1.232	7.122
	Christian					Reference			
Income	Less than 5000	1.058	.417	6.437	1	.011	2.879	1.272	6.518
	50001-10000	1.430	.405	12.473	1	.000	4.177	1.889	9.236
	10001-20000	1.133	.406	7.776	1	.005	3.106	1.400	6.888
	20001-30000	.911	.459	3.928	1	.047	2.486	1.010	6.117
	More than 30000					Reference			
Locality	Rural	-.943	.296	10.177	1	.001	.389	.218	.695
	Urban					Reference			
Place of residence	Hill	1.292	1.114	1.344	1	.246	3.640	.410	32.333
	Plain					Reference			
Age of mother	Less than 35	.228	.205	1.241	1	.265	1.257	.841	1.878
	More than 35					Reference			
	Constant	1.071	1.088	.969	1	.325	2.919		

It is observed that there is no significant difference between these groups in the context of son preference. However, both the age groups in favour of son preferences as more than 60 percent of these categories in favour of a family having at least one son. In the context of religion, the respondents under all the religions in favour of son preference. However, it is highest in Islam (71.10%) followed by Christians (70.80%) and Hindus (58%). There is a significant (p<.01) association between son preference and religion.So far as income of the households is concerned, it is observed that there is significant association between income and son preference. Further it is observed that it is lower (66.90%) in very low income group than the lower middle income group (71.50%) then it gradually reduces in the higher middle income group (65.4%) and finally it abruptly reduces to 38.50% in the highest income group. Income and education are positively associated/ correlated. So, higher education implies higher awareness may be the reason of this reduction in son preference. The findings based on multiple logistic regression analysis have been presented in table 3. From the table it is observed that education cannot be under mine so far as son preference is concerned. In that case, the odds ratio of 1.76 indicates that the respondent (mother) whose educational qualification is below 10th standard prefer 1.76 times more male birth in comparison to the mothers whose educational qualification is 10th standard and above. In other words, against 100 mothers of latter, 176 mothers of former in favour of a family having at least one son. This difference is statistically significant (p<.01). It shows that education plays a significant role in case of sex preference.

In order to study the impact of religion on son preference the respondents are divided into three categories- Hindus, Christians; and Islam and others. In this context the category of christian is considered as a reference category and it is observed that Islam and others people prefer son 2.89 times more than the Christians which is statistically significant. But, there is no significant difference between Hindus and reference category so far as son preference is concerned. Anyway, the factor religion has a role on sex preference. The religion based earlier study of Mohammad *et al.* (2014) also observed parents preference for son.

The people having more than Rs. 30000/- income per month satisfy with a child of any sex than the people having income less than thirty thousand. In case of people in the income category Rs. (20000-30000)/- it is observed that, they are in favour of 2.49 times more son preference than the people in the income category above Rs. 30000/- per month. The same observation has been noticed in case of lower income group, viz., Less than Rs. 5000/- per month, also. Further, it is observed that this tendency is highest (OR= 4.177) in the income group Rs. (5000-10000)/- per month (lower middle income group) then gradually decreases which is not beyond in our expectation.

Again, in case of localities the preference of son is more in the people belonging to the urban area than their rural counterpart. Form the Table 3.2, it is observed that the people belonging to the urban area prefer son 2.57 times (1/0.389) more than the rural people. Result also shows that, Meetei community has less son preference (almost ten times) in comparison to Naga and other communities.

Conclusion

In this paper, an attempt has been made to trace the determinants of son preference among proposed determinants in the study area. The multiple logistic regression model and test of significance based on contingency tables having binary outcomes have been adopted to analyze the data. As findings of this paper, the results of multiple logistic regression analysis reveal that education, religion, income, locality (rural/urban) and community are determinants of son preference. On the other hand, the place of residence (hills/plains), caste and age of mother have no role on son preference. Although, based on test of significance using contingency table, the variables place of residence and caste are also found to be statistically significant in multiple logistic analysis it is observed that these two variables have no impact on son preference. It may be due to the fact that the role of these two variables is less compared to the other variables considered in this endeavour. Finally, this analysis establishes the gender discrimination in the study area as more than 65% of the study subjects in favour of son preference.

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