A Statistical Analysis of Son Preference among Scheduled Tribe and Non-Scheduled Tribe Groups in Kokrajhar District of Assam, India

Ashok Kumar Saha [1] *, Dimacha Dwibrang Mwchahary [2]

[1] *Research Scholar, Department of Mathematical Sciences, Bodoland University, 783370, Assam, India*
[2] *Registrar, Kokrajhar University, Kokrajhar, 783370, Assam, India*
*Corresponding author E-mail: ashoksahakgc@gmail.com

Abstract

This study examines the influence of different social, economic and demographic factors that culminates into son preference among scheduled tribe and non- scheduled tribe found in Kokrajhar district of Assam. Data were collected from a household survey of currently married women of reproductive age group 15-49 years using multi-stage sampling method. Cross tabulation, Chi-square test and logistic regression analysis was carried out for finding out relationships between the socio-economic and demographic variables on son preference. Findings show that son is important for old age security reasons among scheduled tribe people and for legacy continuation in case of non- scheduled tribe. The percentage distribution of son preference by selected characteristics depicts that son preference is high among the non- scheduled tribe as compared to scheduled tribe. Logistic regression shows that the type of family, use of Contraceptives and educational level of women play a significant role on son preference among scheduled tribe and type of family, educational level of husband and religion of husband has the significant affect on son preference among non- scheduled tribe. The findings of the study reveal that son preference is an important indicator of fertility differentials in Kokrajhar district.

Keywords: *Chi-Square; Logistic Regression; Scheduled Tribe; Socio-Economic; Son Preference.*

1. Introduction

Over the past three decades, a significant issue in population and social studies has been identified as parental preference for the sex of children. Son preference refers to the practice of attaching more value to sons than daughters. In many eastern and southern Asian societies, parents think highly of their sons for social, religious and financial reasons. For instance, in India adult sons are expected to help their parents financially when they grow old [11]. A couple may have a specific gender composition in mind when expressing their wish for a family of a certain size. In these situations, if the intended gender composition has not been attained, parents may continue to have children after they have reached their target number. Therefore, when gender preferences are present, reproduction is higher than it would be if they weren't, with the exception in societies where parents have no control over fertility [6]. In India, parents' preference for males is mostly due to the firmly rooted idea that sons will carry on the family's legacy and provide income and support in old age, whereas daughters will cause the outflow of family wealth in the form of dowries. Furthermore, it is hard for parents to not want male children given the familial responsibilities and rites that can only be carried out by a son. The sex ratio is heavily biased in favour of men as a result of the great desire for sons [26].

2. Review of Literature

A considerable examination of the existing scholarly output on population and social science literature highlights the pervasiveness of the key determinants that leads to son desirability. Son preference affects children from disadvantaged backgrounds, including those who live in rural areas, are born to mothers with lower academic achievements, and come from low-income families according to our investigation of the variation in the inequality implications of son preference [22]. In families with rigid gender asymmetries, the relationship between the risks of parity progressions and the sex composition of already born children is rather weaker. The fact that contraceptive use is less common in these households, which may make it more difficult to implement son preference in them and lessen the expected contrast with other families regarding the impact of son preference for reproductive outcomes [21]. The findings indicate that gender-biased reproduction practices have a significant impact on the disparity in education between boys and girls. Although it seems to have a less effect on most outcomes, preferential treatment of males is still important [14]. According to our empirical study, both of the consequences of son-targeting fertility behaviour exist in a number of Asian and North African nations, but they do not exist in sub-Saharan nations. When we focus

on the factors that influence targeted behaviour, we see that income and geographic location have a significant impact on son desirability [4]. The study of the literature in context suggests that gender preferences are not absolute. Desire for at least one daughter tempers the declared preference for sons, which is far from universal in developing nations. More significantly, only a small number of the 28 nations have shown differentiable impacts of family structure on reproductive behaviour [10]. It was observed that for a number of cultural and personal reasons, parents prefer to have sons or daughters. However, female feticide rates rise in nations with a strong preference for sons, and research indicates that parents are prepared to forgo providing for their surviving daughters' health, education, and nourishment [12]. One typical pattern of parental sex preferences across a wide range of social, economic, and cultural circumstances is the empirical observation of a clear and consistent preference for at least one child of each sex [19]. Son preference, which is measured in one way or another by the desired number of sons, is one of the most significant factors influencing the fertility indices. Among the various socio demographic factors that influence fertility disparities in Manipur, the preference for sons is the most significant factor [24]. In Assam, 80.1% scheduled tribe women want at least one son and 84.3% other women want at least one son. Son preference among women is higher in the age group 40-49 years (87.8%) and lower in the age group 15-19 years (74.1%) in the state according to NFHS-5 (2019-21). According to the results of the aforementioned investigations it is observed that three major factors that inspire son preference are economic, socio-cultural and religious utilities.

3. Objective

The central objective of this investigative study is to determine whether socio-economic and demographic factors contribute towards fostering son preference among scheduled tribe and non- scheduled tribe couples in Kokrajhar district of Assam. An analytical study has been conducted in order to understand the dynamics and patterns of sex desirability among the targeted groups.

4. Background of The Study

A couple's desire for a male chld is known as son preference. Indian society, in general exhibits this obsession. Couples usually wish for two children. The four most likely pairings for having two children are son, daughter; daughter, son; son, son and daughter, daughter. The couple's desire for a boy encourages them to pursue a third child. This primarily occurs when the first two children are daughters. A couple continues to grow their family in the hope of having a son. However, even after having at least one son among their first two children, a couple frequently chooses to have a third or fourth kid. Under these circumstances we are unable to ascertain whether the couple's decision to extend their family was motivated by their son's preference. The growth of a family is influenced by several socio-economic and demographic factors. These factors include education, type of family, income and religion. In light of this context, we define "son preference" in this paper as having at least one son.

5. Material and Methods

There are two widely acknowledged approaches for appraising children's sex preference among parents. First, by studying 'intention data' which is information about the respondent's chosen sex for future pregnancies. The second approach involves examining "behavioral data," which looks into the fertility behavior of respondents based on the sex of their current offspring [15]. In the current study, we have considered the same sample of 272 women respondents of scheduled tribe and 240 women respondents of non-scheduled tribe communities to trace the determinants of son preference in the study area. Multi-stage sampling method has been applied for the collection of data. On the basis of data collected, by applying the logistic regression model a few socio-economic and demographic factors have been analyzed using SPSS.

6. Variables for Logistic Regression Analysis

Demand for male births can be determined through couple's desire for male births to female births and it was coded in dichotomous variable yes or no. Present study purports to explain variation in the parental sex preference by a set of nine socio-economic and demographic variables. Several socio-economic and demographic factors are responsible for variation of response.
Socio-Economic Variables: The variables included in this category comprise formal years of schooling of both husband and wife, religious status of the respondents and type of familythat they belong to. Income is also one of the important factors in such decision making. All of these socio-economic variables arc supposed to have an influence on sex preference in the study area.
Demographic variables: Demand for son has often been viewed to be influenced by size and sex composition of the surviving children and couple's present age. For this purpose, couple's present age, duration of marriage and use of contraceptives were used.

7. Results and Discussion

7.1. Sex composition of living children

The classification of scheduled tribe and non- scheduled tribe women according to the number of sons and daughters are presented in table 7.1 (a) and 7.1 (b). These tables show that 27.94 percent of the scheduled tribe women had no male offspring as compared to 21.25 percent among non- scheduled tribe women. Similarly, a higher proportion of Scheduled Tribe women (37.87 percent) had no daughter compared to their Non-Scheduled Tribe counterparts (29.17 percent). These patterns suggest moderate differences in sex composition across the two communities. 47.43 percent had only one son and 44.85 percent had only one daughter of scheduled tribe women and 57.08 percent had only one son and 52.92 percent had only one daughter of non-scheduled tribe women. For two sons and two daughters of scheduled tribe women these percentages were 20.22 and 13.97 respectively and for non- scheduled tribe women these percentages were 16.67 and 13.33 respectively. Again 4.41 percent had three and more sons and 3.31 percent had three and more daughters among scheduled tribe women and 5.00 percent and 4.58 percent among non-scheduled tribe women. Higher-order births (three or more children) were relatively uncommon in both groups, reflecting an overall decline in family size consistent with broader fertility transition trends in the region.

Table 7.1: A) Frequency Distribution of Scheduled Tribe Women Having Surviving Son and Daughter

No. of living children	Son		Daughter	
	Frequency	Percentage	Frequency	Percentage
0	76	27.94	103	37.87
1	129	47.43	122	44.85
2	55	20.22	38	13.97
3 & above	12	4.41	9	3.31
Total:	272	100.00	272	100.00

Source: Primary data.

Table 7.1: B) Frequency Distribution of Non-Scheduled Tribe Women Having Surviving Son and Daughter

No. of living children	Son		Daughter	
	Frequency	Percentage	Frequency	Percentage
0	51	21.25	70	29.17
1	137	57.08	127	52.92
2	40	16.67	32	13.33
3 & above	12	5.00	11	4.58
Total:	240	100.00	240	100.00

Source: Primary data.

7.2. Reasons for son preference

Table 7.2 shows that 36.22 percent and 30.57 percent respondents prefer son for old age security among scheduled tribe and non- scheduled tribe respectively. 35.43 percent and 45.68 percent respondents prefer son for continuing legacy in case of scheduled tribe and non- scheduled tribe respectively. 18.90 percent and 8.92 percent respondents inform that they prefer son due to economic returns. It was observed that old age security and continuing legacy are the main reasons for son preference among scheduled tribe and non- scheduled tribe.

Table 7.2: Percentage Distribution of Respondents by Reasons for Son Preference

Reasons	Scheduled tribe		Non-scheduled tribe	
	Frequency	Percentage	Frequency	Percentage
Old age security	46	36.22	48	30.57
Further economic return	24	18.90	14	8.92
Continuing legacy	45	35.43	72	45.86
Marriage problem of daughters	4	3.15	8	5.10
Religious factors	2	1.58	11	7.00
Others	6	4.72	4	2.55
Total:	127	100.00	157	100.00

Source: Primary data.

7.3. Son preference by selected socio-demographic characteristics

Table 7.3(a) and 7.3(b) represents the percentage distribution of son preference by selected characteristics depicts that 49.06 percent of the scheduled tribe and of the respondents from non-scheduled tribes, 65.69 percent support having at least one son. The percentage of scheduled tribes that prefer sons is lower than that of non-scheduled tribes. In the age group 30 and above, 27.94 percent scheduled tribe women and 50.00 percent non- scheduled tribe women reported in favour of son. 41.91 percent husbands of scheduled tribe women reported to be in favour of son while this percentage for non-scheduled tribe 60.83 in the age group 30 and above years, which is more than scheduled tribe groups. It is evident that 20.96 percent of scheduled tribe women have a preference for sons at lower educational levels (i.e., less than the tenth standard) and 38.75 percent for non-scheduled tribe women which is more than scheduled tribe. But for 10th standard and above 25.74 percent scheduled tribe women and 26.67 percent non- scheduled tribe women are in favour of son. So, in the higher educational level son preference is almost similar among women for both the communities. Further it is observed that it is 33.82 percent in the higher income group than it abruptly reduces to 12.86 percent in the lower income group of scheduled tribe and for non- scheduled tribe 37.92 percent in the lower income group than it reduces to 27.50 percent in the higher income group. The majority of people in the research area practise Hinduism. The results of this study show that the non-scheduled tribe had a greater preference for sons (52.08 percent) as compared to the scheduled tribe (42.65 percent) inhabitants of this religion. In scheduled tribes, 34.19 percent of joint families favour sons, compared to 49.58 percent in non-scheduled tribes. Son preference is more among scheduled tribe women using contraceptive practices. Regarding duration of marriage having less than ten years 20.96 percent of scheduled tribe and 22.92 percent of no-scheduled tribe reported son is important but ten years and above 25.37 percent and 42.50 percent non- scheduled tribe reported that son is more important than daughter.

Table 7.3: A) Frequency Distribution (Cross Tables) of Son Preference by Selected Characteristics of Scheduled Tribe

Variable	Characteristics	Son Preference			
		At least one son		No preference	
		Frequency	Percentage	Frequency	Percentage
Women's Present Age	15-30	51	18.75%	58	21.32%
(WPA)	30 & above	76	27.94%	87	31.99%
Husband's Present Age	21-30	13	4.78%	28	10.29%
(HPA)	30 & above	114	41.91%	117	43.01%
Women's Educational	Less than 10th standard	57	20.96%	36	13.24%
Level (WEL)	10th standard and above	70	25.74%	109	40.07%
Husband's Educational	Less than 10th standard	53	19.49%	24	8.82%
Level (HEL)	10th standard and above	74	27.21%	121	44.48%
Household Family In-	Less than 20000	35	12.86%	33	12.13%
come (HFI)	20001& above	92	33.82%	112	41.18%
Religion of Husband	Hindu	116	42.65%	128	47.06%
(RF)	Non-Hindu	11	4.04%	17	6.25%
Type of Family (TF)	Joint	93	34.19%	77	28.31%
	Nuclear	59	21.69%	43	15.81%

Use of Contraceptives (UC)	Yes	129	47.43%	89	32.72%
	No	32	11.76%	22	8.09%
Duration of Marriage (DoM)	Less than 10 years	57	20.96%	80	29.41%
	10 years & above	69	25.37%	66	24.26%
	Overall		49.06%		50.94%

Source: Primary data.

Table 7.3: B) Frequency Distribution (Cross Tables) of Son Preference by Selected Characteristics of Non-Scheduled Tribe

Variable	Characteristics	Son Preference At least one son Frequency	Percentage	No preference Frequency	Percentage
Women's Present Age (WPA)	15-30	37	15.42%	19	7.92%
	30 & above	120	50.00%	64	26.67%
Husband's Present Age (HPA)	21-30	11	4.58%	4	1.67%
	30 & above	146	60.83%	70	32.92%
Women's Educational Level (WEL)	Less than 10th standard	93	38.75%	47	19.58%
	10th standard and above	64	26.67%	36	15.00%
Husband's Educational Level (HEL)	Less than 10th standard	42	17.50%	23	9.58%
	10th standard and above	115	47.92%	60	25.00%
Household Family Income (HFI)	Less than 20000	91	37.92%	51	21.25%
	20001 & above	66	27.50%	32	13.33%
Religion of Husband (RF)	Hindu	125	52.08%	63	26.25%
	Non-Hindu	32	13.33%	20	8.33%
Type of Family (TF)	Joint	119	49.58%	63	26.25%
	Nuclear	38	15.83%	20	8.33%
Use of Contraceptives (UC)	Yes	86	35.83%	58	24.17%
	No	71	29.58%	25	10.42%
Duration of Marriage (DoM)	Less than 10 years	55	22.92%	31	12.92%
	10 years & above	102	42.50%	52	21.67%
	Overall		65.69		34.31

Source: Primary data.

7.4. Association between son preference and socio-demographic factors

Son preference is one of the two attributes that have been tested for independence is shown in tables 7.4 (a) and 7.4 (b). Out of nine variables under study chi-square test signifies ($p<.05$) that four variables of scheduled tribe shows there is an association between type of family, use of contraceptives, women's present age and duration of marriage. Out of nine variables under study chi-square test signifies ($p<.05$) that two variables of non-scheduled tribe shows there is an association between type of family, educational level of husband and son preference.

Table 7.4: A) Chi-Square Statistic of Cross Tabulation of Son Preference Among Scheduled tribe

Characteristic	Degrees of freedom (d. f.)	Chi-square value	p-value
Women's Present Age	1	6.482	0.008
Husband's Present Age	1	2.834	0.073
Women's Educational Level	1	1.959	0.109
Husband's Educational Level	1	0.255	0.371
Household Family Income	1	0.517	0.295
Religion of Husband	1	0.044	0.515
Type of Family	1	12.226	0.000
Use of Contraceptives	1	8.960	0.002
Duration of Marriage	1	3.410	0.045

Source: Primary data.

Table 7.4: B) Chi-Square Statistic of Cross Tabulation of Son Preference Among Non-Scheduled Tribe

Characteristic	Degrees of freedom (d. f.)	Chi-square value	p-value
Women's Present Age	1	0.416	0.255
Husband's Present Age	1	0.831	0.477
Women's Educational Level	1	0.097	0.064
Husband's Educational Level	1	0.074	0.050
Household Family Income	1	0.383	0.235
Religion of Husband	1	0.811	0.461
Type of Family	1	0.002	0.002
Use of Contraceptives	1	0.146	0.096
Duration of Marriage	1	0.418	0.253

Source: Primary data.

7.5. Multivariate analysis: logistic regression results

It was decided to use logistic regression on current fertility in relation to relevant explanatory variables. Only three of the nine categorised variables have been shown to significantly affect the present fertility disparities in the research population for both scheduled and non-scheduled tribes [table 7.5 (a) and 7.5 (b)]. For scheduled tribe these are type of family ($p < 0.05$), use of contraceptives ($p < 0.05$) and women educational status ($p < 0.05$). Women's Educational Level ($p < 0.05$, OR = 2.80 with 95% CI: 1.05-7.50). The respondents are divided into two groups- joint and nuclear in order to examine the influence of family type on son preference. Type of family ($p <0.01$, OR = 3.86 with 95% CI: 1.86-8.00). Use of contraceptives also plays vital role in son preference, ($p < 0.05$, OR = 0.42 with 95% CI: 0.20 - 0.86). For non-scheduled tribe these are type of family ($p < 0.05$), educational level of husband ($p < 0.05$) and religion of husband ($p < 0.05$). Educational Level of husband ($p < 0.05$, OR = 0.37 with 95% CI: 0.156 -0.905). It is observed that the factor type of family has a

significant impact on son preference among the non-scheduled tribes. Type of family (p <0.05, OR = 3.014 with 95% CI: 1.405 - 6.463). Religion also plays vital role in son preference, (p < 0.05, OR = 0.313 with 95% CI: 0.106 - 0.919). It is observed that education of women and husband cannot be undermined in terms of son preference. It demonstrates that women's education has a big impact on sex preference. It is also observed that the factor type of family has a significant impact on son preference among the scheduled tribe and non- scheduled tribe.

Table 7.5: A) Logistic Regression Showing Effects of Selected Characteristics on Son Preference of Scheduled Tribe

Variables	β	S.E.	Wald	p	Exp(β)	95% CI for exp(β) Lower	Upper
Women's Present Age	-0.662	0.393	2.841	0.092	0.516	0.239	1.114
Husband's Present Age	-0.569	0.582	0.956	0.328	0.566	0.181	1.772
Women's Educational Level	1.031	0.502	4.214	0.040	2.804	1.048	7.502
Husband's Educational Level	-0.900	0.508	3.134	0.077	0.407	0.150	1.101
Household Family Income	-0.242	0.413	0.342	0.559	0.785	0.349	1.765
Religion of Husband	0.013	0.572	0.001	0.982	1.013	0.330	3.107
Type of Family	1.350	0.372	13.134	0.000	3.856	1.858	8.000
Use of Contraceptives	-0.873	0.366	5.705	0.017	0.417	0.204	0.855
Duration of Marriage	-0.467	0.360	1.681	0.195	0.627	0.310	1.270
Constant	1.232	0.791	2.422	0.120	3.427		

Source: Primary data.

Table 7.5: B) Logistic Regression Showing Effects of Selected Characteristics on Son Preference of Non-Scheduled Tribe

Variables	β	S.E.	Wald	p	Exp(β)	95% CI for exp(β) Lower	Upper
Women's Present Age	-0.145	0.465	0.097	0.755	0.865	0.348	2.152
Husband's Present Age	-0.087	0.472	0.034	0.854	0.917	0.363	2.314
Women's Educational Level	-0.575	0.403	2.033	0.154	0.563	0.255	1.240
Husband's Educational Level	-0.979	0.449	4.758	0.029	0.376	0.156	0.905
Household Family Income	-0.002	0.473	0.000	0.997	0.998	0.395	2.524
Religion of Husband	-1.162	0.550	4.463	0.035	0.313	0.106	0.919
Type of Family	1.103	0.389	8.034	0.005	3.014	1.405	6.463
Use of Contraceptives	0.308	0.314	0.961	0.327	1.361	0.735	2.518
Duration of Marriage	-.433	0.335	1.667	0.197	0.648	0.336	1.252
Constant	0.667	0.735	0.824	0.364	1.948		

Source: Primary data.

8. Conclusion

In this study, an effort has been made to identify the factors that influence son preference in the study area's scheduled and non-scheduled tribes. The results of the study clearly indicate old age security and continuing legacy are the main reasons for son preference among scheduled tribe and non- scheduled tribe groups. The percentage distribution of son preference by selected characteristics depicts that son preference is more among non- scheduled tribe in the study area. Based on a contingency table test of significance, the variables women's present age, type of family, use of contraceptives and duration of marriage are also found to be statistically significant of scheduled tribe. Type of family and husband's educational level was found statistically significant of non-scheduled tribe. Women's educational level is also very closer to the significant level of non-scheduled tribe. Son preference was found to be influenced by education, religion, income, community, and location (rural/ urban) and community are factors that influence son preference when considering the influence of socio-economic and demographic factors on son preference. However, a mother's age, caste, and place of residence (plains or hills) have little bearing on her son's preferences [8]. The results of logistic regression analysis reveal that three significant factors of son preference among scheduled tribe and non- scheduled tribe. These are type of family, use of contraceptives and women's educational level of scheduled tribe and type of family, educational level of husband and religion of husband. Among the three behavioral factors- type of family was found more influential on son preference (β = 1.350, p < 0.01) and (β = 1.103, p < 0.05) among scheduled tribe and non-scheduled tribe. Use of contraceptives which can reduce the influence of son preference (β = -0.873, p < 0.05) of scheduled tribe. Religion and educational level of husband can reduce the influence of son preference (β = -1.162, p < 0.05) and (β = -0.979, p < 0.05) of non-scheduled tribe. From this outcome, it may be interpreted as women's educational level of scheduled tribe gives an increase in son preference (β = 1.03, p < 0.05) with 95% CI: 1.05- 7.50. Although present age of women and husband, family income and duration of marriage has no significant impacts on son preference due to many reasons still they can reduce intensity of son preference of both the communities. The logistic regression analysis demonstrates this. Sex preference starts to have a bigger role in fertility decisions when average family sizes start to decline. Compared to other women in Assam, women from scheduled tribes have a much lower fertility rate. The most recent findings from the 2019-21 National Family Health Survey (NFHS-5) shows that the Total Fertility Rate (TFR) for women from scheduled tribes was 1.54,

while the TFR for other women was 1.87. The welfare of children and demographic trends may be significantly impacted by parents' preference for sons. The study underscores the need for community-specific policy interventions that go beyond promoting education alone. Efforts to reduce son preference should incorporate strategies that address family structure, enhance reproductive autonomy, and engage men in discussions of gender equity. Future research could extend this analysis through longitudinal designs or comparative studies across regions to better understand how changing socio-cultural contexts influence gender preference and fertility behaviour over time.

References

[1] Arnold F, Kishor S & Roy, T. (2002), Sex-Selective Abortions in India, Population and development review 28(4), 759-785. https://doi.org/10.1111/j.1728-4457.2002.00759.x.

[2] Asari GV (1994), Determinants of Contraceptive use in Kerala: The Case of Son/Daughter Preference, The Journal of Family Welfare, 40(3), p.19-25.

[3] Asghar M, Murry B, & Kallur NS (2014). Fertility Behaviour and Effect of Son Preference among the Muslims of Manipur, India, Hindawi Publishing Corporation, Journal of Anthropology. https://doi.org/10.1155/2014/108236.

[4] Basu D & Jong RD (2010), Son Targeting Fertility Behaviour: Some Consequences and Determinants, Demography, Volume 47, Number 2, 521-536. https://doi.org/10.1353/dem.0.0110

[5] Bhat P & Zavier A (2003), Fertility decline and gender bias in northern India, Demography, 40(4), 637 - 657. https://doi.org/10.2307/1515201.

[6] Bongaarts J (1998), Fertility and reproductive preferences in post-transitional societies, Policy Research Division, no.114, Population Council, New York. https://doi.org/10.31899/pgy6.1015

[7] Bongaarts J (2013), The Implementation of Preferences for Male Offspring. Population and Development Review, 39(2), 185-208. https://doi.org/10.1111/j.1728-4457.2013.00588.x.

[8] Chanu NS (2016), An Econometric Analysis of the Impact of Some Socio-Economic and Demographic Variables on Fertility Behaviour: A Case Study in Manipur, India, Ph. D. Thesis, Dibrugarh University, Dibrugarh.

[9] Clark S (2000), Son Preference and Sex Composition of Children: Evidence from India, Demography, Volume 37-Number 1, 95–108. https://doi.org/10.2307/2648099.

[10] Cleland J, Verrall J & Aessen MV (1983), Preferences for the Sex of Children and their Influence on Reproductive Behaviour, No. 27, International Statistical Institute, Netherlands.

[11] Das N (1984), Sex Preference Pattern and Its Stability in India: 1970–80, Demography India 13(1 and 2),108-19.

[12] Das Gupta M (1987), Selective discrimination against female children in rural Punjab, India', Population and development review 13(1), 77-100. https://doi.org/10.2307/1972121

[13] Das N (1987), Sex Preference and Fertility Behaviour: A Study of Recent Indian Data, Demography, Volume 24, Number 4. https://doi.org/10.2307/2061389

[14] Fors HC & Lindskog A (2023), Son preference and education Inequalities in India: the role of gender-biased fertility strategies and preferential treatment of boys, Journal of Population Economics, 36:1431-1460, Springer. https://doi.org/10.1007/s00148-023-00941-5.

[15] Gray E & Evans A (2004), Parity progression in Australia: What role does sex of existing children play? Paper presented at 12th Biennial Conference on population and society: issues, research, policy. Canberra, Australia.

[16] Gautam A, Singh BP & Singh KK (2019), Male Attitude towards Son Preference and its Covariates in India, Janasamkhya, Vol. XXXVI - VII

[17] Graham M, Smith C & Shield M (2015), Women's attitudes towards children and motherhood: A predictor of future childlessness?, Journal of Social Inclusion, 6(2), pp. 5-18 https://doi.org/10.36251/josi81

[18] Hammarberg K. et. al. (2017), Men's knowledge, attitudes and behaviours relating to fertility, Human Reproduction Update, Vol.23, No.4 pp. 458–480. https://doi.org/10.1093/humupd/dmx005

[19] Hank K (2007), Parental Gender Preferences and Reproductive Behaviour: A Review of the Rcent Literature, Journal of Biosocial Science, 39,759-767, Cambridge University Press. https://doi.org/10.1017/S0021932006001787

[20] Hoq MN (2019), Effects of Son Preference on Fertility: A parity Progression Analysis, Corvinus Journal of Sociology and Social Policy, Vol. 10, pp. 27-45. https://doi.org/10.14267/CJSSP.2019.1.2

[21] Kazenin K (2023), Son preference, gender asymmetries and parity progressions: the case of Kyrgyzstan, Asian Population Studies, Vol. 19, NO. 1, 5–21. https://doi.org/10.1080/17441730.2021.1992858.

[22] Le K & Nguyen M (2022), Son preference and health disparities in developing countries, SSM - Population Health 17, 101036, ELSEVIER. https://doi.org/10.1016/j.ssmph.2022.101036.

[23] Mutharayappa R, Choe MK, Arnold F & Roy TK (1997), Son Preference and Its Effect on Fertility in India, National Family Health Survey Subject Reports, Number 3, International Institute for Population Sciences, Mumbai.

[24] Nath D C & Singh HB (2012), Impact of Son Preference on Fertility Indices in Manipur, International Journal of Management, Economics and Social Sciences, Vol. 1(2), pp. 26 –32.

[25] Nath DC & Deka AK (2004), The importance of son in a traditional society: How elderly parents see it? Demography India, 33(1): 33-46.

[26] Pal J, Das B & Dubey A (2024), Fertility Decline and Son Preference in India, Demography India, Vol. 53, No. 2.

[27] Rai P, Paudel IS, Ghimire A, Pokharel PK, Rijal R & Niraula SR (2014), Effect of gender preference on fertility: cross-sectional study among women of Tharu community from rural area of eastern region of Nepal, Reproductive Health, http://www.reproductive-health-journal.com/content/11/1/15. https://doi.org/10.1186/1742-4755-11-15.

[28] Rossier C & Bernardi L (2009), Social Interaction Effects on Fertility: Intentions and Behaviors, European Journal of Population, 25:467-485. https://doi.org/10.1007/s10680-009-9203-0.

[29] Sarah R & Otto B (2013), Attitudes about Children and Fertility Limitation Behavior, National Instiues of Health, 32(1): 1-24. https://doi.org/10.1007/s11113-012-9261-6

[30] Sharma AK. (2024), A note on application of Logistic Regression Analysis in Demography, Demography India Vol. 53, No. 1.

[31] Singh A, Upadhyay AK, Kumar K, Singh A, Johnson FA & Padmadas SS (2022), Spatial heterogeneity in son preference across India's 640 districts: An application of small-area estimation, Demographic Research: Volume 47, Article 26. https://doi.org/10.4054/DemRes.2022.47.26.

[32] Singh BP, Maheshwari S, Madhusudan J V & Gupta P K (2015), Sex Composition of Living Children, Future Child Bearing Pattern and Contraceptive Behavior in Uttar Pradesh, in Janasamkhya, XXXIII, pp. 37-50.

[33] Susuman AS (2006), Son Preference and Contraceptive Practice Among Tribal Groups in Rural South India, Stud. Tribes Tribals, 4(1): 31-40. https://doi.org/10.1080/0972639X.2006.11886534.

[34] Williamson NE (1976), Sons or Daughters: a Cross Cultural Survey of Parental Preferences. Beverley Hills, California: Sage.