Research Article

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A study on attitude of parents on gender preference and prenatal diagnostic test in an urban community of Sambalpur, a tribal district of India

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ABSTRACT

Background: In India the overwhelming preference for sons coupled with inclination for a small family and availability of prenatal diagnostic test has resulted in the decreasing sex ratio. So the aim of the study was to find out the attitude of parents towards sex preference of the child and use of prenatal diagnostic test.

Methods: A community based cross sectional study was conducted in the urban area of Sambalpur in the year 2011. By simple random sampling a total of 200 families were selected which consisted of both the parents with at least one male and one female child of 0-6 years of age. Both the parents were questioned regarding sex preference of additional child and attitude towards Pre Natal Diagnostic Technique (PNDT). Chi-square and z tests were applied.

Results: Among the parents who wanted an additional child 62-64% had two children and 30% had three children. Majority i.e., 78% fathers and 81% mothers, who expected another child preferred son. Highest son preference was seen among mothers of middle class (86.7%) and illiterate mothers (84.7%). Also 51.5% fathers and 47.3% mothers favoured PNDT. Parents belonging to Upper class favoured PNDT more than the lower class ($x^2 = 6.73$, df = 2, P <0.05).

Conclusion: Education and employment opportunities for women and effective implementation of PNDT act hold key solutions to this problem.

Keywords: Sex preference, Attitude, Prenatal diagnostic test

INTRODUCTION

Sex-ratio of a country reflects the status of women. In India sex-ratio is expressed as the number of females per 1000 males. Data from Census of our country shows always a sex-ratio less than 1000. Strong preference for sons has been found to be pervasive in Indian society. Most of the factors that compel people to favour a male offspring are social and religious in origin. With the average family size decreasing rapidly and preference for male child remaining the same, the female population is

showing a downward trend.¹ The birth of a female child is perceived as a curse with economic and social liability.² According to 2011 census the sex ratio in 0-6 years children is 944, which showed a definite improvement from 927 in 2001. But there is wide variation within states. Only two states i.e. Kerala and Puducherry show a sex ratio above 1000 though many states have improved a little compared to the sex ratio of 2001.³ As per 2001 census it is remarkably low in urban areas like Chandigarh and New Delhi. As per 2011 census data too urban area show lower sex ratio. Advances in technology and diagnostic facilities have

opened up avenue for the girl haters leading to serious disturbances in sex ratio as a result of female feticide. Access and availability of this facility in urban area has brought about adverse sex ratio in these areas. The adverse sex ratio has led to enforcement of Preconception and Pre Natal Diagnostic Techniques (PNDT) Act since February 2003. However, the relatively recent availability of technologies for the early determination of sex which has provided an additional method of sex selection is not the root cause of the problem. Technology or no technology, it is the socio-cultural norm and religious background which play a role in changing the attitude and behavior of parents and community towards sex selection. Again to what extent PNDT act has been able to improve sex-ratio against the backdrop of traditional beliefs and custom is a matter of concern. So, it's the attitude of parents and community in the presence of technology, PNDT act and son preference that plays a major role and it becomes more important in an urban setting. Keeping the above points in view the present study has been undertaken with the objectives to find out the attitude of parents of the urban population of Sambalpur towards sex preference of the child and prenatal diagnostic test.

METHODS

A cross sectional community based study was undertaken in the Sambalpur town in the year 2011. The parameter used to determine sample size was "Proportion of parents preferring male child as the first issue", which came out to be 56% after conducting a pilot study over 100 parents selected randomly. So at 95% confidence interval, minimum sample size came out to be 314. The number was further raised to 400 for precision. In this study families were selected where both the parents have at least one male and one female child below six years of age. So considering the sample size to be 400 parents the total families studied were 200.

Out of 29 wards in the city, one ward was selected randomly by adopting simple random technique. All the families in the selected ward having one male and one female child of 0-6 year's age were identified for the purpose of the study. This process of selection of wards was continued till the cumulative total number of families became 200. A pretested predesigned questionnaire was used to collect information. Verbal consent was taken before filling the questionnaire. The families were visited twice and after developing rapport the data regarding attitude of parents towards gender preference and prenatal diagnostic test, immunization status and health status of children were taken as per the questionnaire. Out of 200 families, complete data could be collected from 192 families i.e. 384 parents. The chi-square test and ztest were used as the tests of significance. Two tailed P value of less than 0.05 was considered significant.

RESULTS

Out of 192 families, majority 171 (89.06%) belonged to Hindu religion and 164 (85.4%) were nuclear families. Most of the study population belonged to OBC i.e. 75 (39.06%) and general caste 58 (30.2%). Most of the families belonged to middle and lower social class i.e. 35.9% and 34.3%, respectively (based upon modified B. G. Prasad classification). Only 34.3% fathers and 18.75% mothers had received higher secondary education. Illiteracy rate was higher among mothers (32.8%) in comparison to fathers (7.81%).

When the parents were asked whether they want an additional child, 78 (40.6%) fathers and 75 (39.06%) mothers wished to have another child. Table 1 shows that among the parents, who wanted an additional child, majority of them (62-64%) had 2 children and (30%) had three children. Only 5.3% mothers and 14.28% fathers with ≥4 children wanted another child. Those who expressed willingness for another child were questioned regarding sex preference of the additional child. It was observed that irrespective of number of existing children most of the parent i.e., 78% fathers and 81% mothers showed preference for son. Only 4% mothers wanted a female child and 14.6% mothers had no such preference. The preference for sons was found to increase with increase in number of living children. All the mothers (100%) and 85.71% fathers with ≥4 number of living children wanted an additional male child.

Table 1: Sex preference of additional child by parents according to number of living children.

No. of living children	Male	Female	Female No preference					
Fathers (n=78)							
2	36 (75.0)	2 (4.16)	10 (20.83)	48				
3	19 (82.6)	1 (4.34)	3 (13.04)	23				
≥4	6 (85.71)	0	1 (14.28)	7				
Total	61 (78.2)	3 (3.84)	14 (17.94)	78				
Mothers (n=75)								
2	38 (79.16)	2 (4.16)	8 (16.6)	48				
3	19 (82.6)	1 (4.34)	3 (13.04)	23				
≥4	4 (100)	0	0	4				
Total	61 (81.33)	3(4.0)	11(14.66)	75				

(Figures in parentheses denote %)

This study revealed that preference for son was seen more among mothers (81.3%) in comparison to fathers (78.2%). Keeping this point in view the sex preference for the child was analyzed with the socio-demographic factors of the mothers. Though son preference was found in every social class and caste, it was seen highest among mothers belonging to middle class (86.7%) followed by lower class (80.7%). Table 2 shows preference for son was highest among mothers of general caste (90%) followed by OBC (85.7%) and it was least among scheduled tribes (73.07%).

Table 2: Sex preference of additional child according to socio-demographic characteristics of mothers (n=75).

Charact- eristics	Gender preference							
	Male	Female	No preference	Total				
Social class	}							
Upper	6 (75.0)	1 (12.5)	1 (12.5)	8				
Middle	13 (86.7)	1 (6.67)	1 (6.67)	15				
Lower	42 (80.76)	1 (1.92)	9 (17.3)	52				
Total	61 (81.33)	3 (4.0)	11 (14.66)	75				
Educational status								
Illiterate	39 (84.78)	1 (2.17)	6 (13.04)	46				
Primary	16 (80.0)	0	4 (20.0)	20				
Secondary	4 (80.0)	1 (20.0)	0	5				
Higher secondary	2 (50.0)	1 (25.0)	1 (25.0)	4				
Total	61 (81.34)	3 (4.0)	11 (14.67)	75				

(Figures in parentheses denote %)

The preference for son was found to be highest among illiterate mothers (84.7%) followed by primary & secondary (80% in each category) and only 50 per cent

highly educated mothers among the study population showed preference for son. The reasons for son preference as cited by mothers were mostly to continue the family lineage (30.5%), for religious purposes (27.8%), look after during old age (15.2%) and for financial support (14.2%).

Further the attitude of parents towards pre-natal diagnostic test was analyzed which was given in Table 3. When all the respondents were asked about whether one should go for pre natal diagnostic test during pregnancy, 99 (51.5%) fathers and 91 (47.3%) mothers favoured PNDT, whereas 75 (39%) fathers & 69 (35.9%) mothers did not favour it. The rest i.e., 9.3% fathers & 16.6% mothers did not respond.

Preference to utilize PNDT was seen more in upper class followed by middle class and then lower class. About 59.6% fathers and 68.4% mothers in upper class favored PNDT in comparison to 37.8% fathers and 24.2% mothers in lower class. The association between social class with the attitude towards PNDT was found to be statistically significant for fathers [$x^2 = 6.73$ (P < 0.05 at df = 2) and for mothers too [$x^2 = 17.78$ (P < 0.001) df = 2].

Table 3: Parental attitude about PNDT according to social class.

Characteristics	Fathers' attitude (n=192)*				Mothers' a	ttitude(n=192	2)**				
	Favour	Don't favour	No response	Total	Favour	Don't favour	No response	Total			
Class											
Upper	34 (59.6)	19 (33.3)	4 (7.01)	57	39 (68.42)	15 (26.31)	3 (5.26)	57			
Middle	40 (57.9)	23 (33.3)	6 (8.6)	69	36 (52.1)	21 (30.4)	12 (17.3)	69			
Lower	25 (37.8)	33 (50.0)	8 (12.1)	66	16 (24.2)	33 (50.0)	17 (25.7)	66			
Total	99 (51.56)	75 (39.06)	18 (19.37)	192	91 (47.39)	69 (35.93)	32 (16.67)	192			

(Figures in parentheses denote %)

* $[x^2 = 6.73 (P < 0.05), at df = 2, **x^2 = 17.78 (P < 0.001) at df = 2]$

Table 4: Parental attitude about PNDT according to caste.

Characteristics	Fathers' attitude (n=192)				Mothers' a	ttitude(n=192	2)			
	Favour	Don't favour	No response	Total	Favour	Don't favour	No response	Total		
Class										
GEN	31 (53.44)	24 (41.37)	3 (5.17)	58	30 (51.72)	11 (18.96)	17 (29.31)	58		
OBC	42 (56.0)	27 (48.21)	6 (8.06)	75	42 (56.0)	24 (32.0)	9 (12.0)	75		
SC	18 (47.36)	14 (36.84)	6 (15.78)	38	13 (34.21)	21 (55.26)	4 (10.52)	38		
ST	8 (38.09)	10 (47.61)	3 (14.28)	21	6 (28.57)	13 (61.9)	2 (9.52)	21		
Total	99 (51.56)	75 (39.06)	18 (19.37)	192	91 (47.39)	69 (35.93)	32 (16.67)	192		

(Figures in parentheses denote %)

 $[x^2 = 1.59 (P > 0.05), x^2 = 15.42 (P < 0.01)$ at df = 3 for fathers and mothers, respectively]

When parental attitude of PNDT was compared with their educational status in Table 4, majority of fathers (60.6%) with higher education followed by secondary education (51.4%) and primary education (46.05%) favoured PNDT. Among the illiterate fathers 40% opted for it. Two third of mothers (66.6%) with higher education expressed positive attitude towards PNDT followed by mothers with secondary education (43.3%) and it was only 42.8% among illiterates mothers. Out of all the fathers who favored PNDT highest proportion belonged to OBC (56%) and least proportion belonged to ST (38%). When mothers were taken in to consideration majority from OBC (56%) favored PNDT whereas among scheduled tribes 28.5 per cent favoured the same. The association between caste & attitude was found to be statistically significant in case of mothers ($x^2 = 15.42$, df = 3, P < 0.01).

DISCUSSION

In this study, 78% fathers and 81% mothers showed preference for an additional male child, revealing a deep rooted son preference in the society. Two other studies i.e., Vadera et al. and Puri et al. also reported male preference of 58.5% and 56% respectively. Study conducted by Kansal R et al. reported increased preference for male child (22.2%) in comparison to preference for female child (11.8%).

This study also revealed that the preference for son increased with the number of living children. NFHS II report also showed that mothers with four or more living children strongly preferred an additional male child than mothers with two living children.⁶

Preference for males was found to be highest among mothers of middle class followed by lower and then higher class. The NFHS II report revealed the same. In middle class the sons are preferred most because sons are considered to provide financial security whereas daughters are felt to be economic drain due to dowry system. In lower class both sons and daughters earn for a livelihood, so son preference seen is comparatively less in lower class.

It also reveals that preference for son as an additional child was more among illiterate mothers. As the educational status improves the son preference decreases. The NFHS II report also confirmed the same. According to illiterate mothers; sons ultimately provide emotional, financial support during old age. But mothers with higher education are sometimes employed and economically independent.

Mothers of general caste and OBC favoured male child more. Contrary to this study, NFHS II demonstrated scheduled caste and scheduled tribe women have more son preference than OBC and general caste. In higher castes the daughters are not preferred because of prevalent dowry system. Among scheduled tribes as both the sons and daughters earn the daughters are not considered as economic burden.

The reasons for the enhanced son preference were to continue family lineage, look after during old age and for financial support. Kansal R et al. and Vadera et al. cited similar reasons.^{1,4}

This study reflects in the upper class as well as in OBC and general caste parents were in favor of PNDT. In NFHSII report it has been seen that in some Western and Northern states, women with higher socioeconomic status are more likely than the other women to practice sex selective abortion. It may be because they can afford PNDT and secondly daughters are considered as economic drain due to dowry system prevalent in upper and middle class. Also the small family norm mostly seen in higher class and castes coupled with son preference probably makes people more inclined towards PNDT and sex selective abortion.

It was observed that the attitude favouring PNDT increased with higher education and it was found to be statistically significant when compared between mothers with higher education and illiterates ($z=2.3,\ P<0.05$). NFHSII report has also revealed that women who are educated are probably more likely to use sex selective abortion than other women because they are more inclined towards small family norm and they have more information and access to sex determination and abortion facilities. 6

CONCLUSION

In India the social environment is such that a female child is the cause of much physical and mental torment to the parents irrespective of the background of the family. The mindset of the individuals and families could be changed by improving the status of women by providing greater opportunities for education, employment and inheritance rights. Along with women empowerment strict enforcement of PNDT Act will go a long way to achieve a healthy sex ratio.

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