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Original Research Article

Gender preference and perception of PNDT: A community based study among ever married women in a rural area of West Bengal

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Abstract

Background: Declining sex ratio is an issue of major concern. In spite of legal rules and regulations prenatal sex determination and sex selective abortion is going on in this country. The root of the problem is male child preference and unawareness about the rules forbidding prenatal sex determination.

Aim: To elicit the gender preference and perception regarding prenatal sex determination among rural ever married women and to find out the contextual factors influencing the perception.

Material and methods: This community based cross-sectional study was undertaken under the rural field practice area of All India Institute of Hygiene and Public Health, Kolkata. All ever married women in that area was line listed out of which the required number of women (i.e. 96) was selected by simple random sampling. A predesigned and pretested semi structured schedule was used for data collection. Firstly a univariate analysis was done. The variables which were found to be significant were entered into the multiple logistic regression model. P value of <0.05 was considered significant.

Results: 90.6% of the study population felt that at least one male child is necessary in a family and 59.37% agreed with prenatal sex determination. Multivariate analysis showed that women with higher education had better perception of prenatal sex determination techniques and the PNDT Act with Adjusted Odds Ratio (Confidence Interval) 19.25 (5.58-66.34).

Conclusion: Intensive IEC campaigns to increase awareness and enforcement of law are the need of the hour to check this social problem.

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Key words

Sex-ratio, PNDT, Multivariate analysis.

Introduction

India is having a patriarchal social framework where the preference for a son over a daughter is rooted in socioeconomic and cultural factors. The preference for male child has resulted in increased discrimination against girl child in this country. Not only are they devalued as human beings from the day they are born but also are they denied the right to be born if their families do not wish them to be born [1]. Female foeticide is one of the most serious forms of violence against women where female foetuses are selectively being aborted after prenatal sex determination. Over the past few decades this social menace has been spreading unchecked in this country.

Declining sex ratio is one of the most important evidence which speaks the situation itself. Sex ratio is an important social indicator measuring status and equity between male and female in the society. The overall sex ratio came down to 933 in the year 2001 from 972 in 1901. Since 2001 it has increased 7 points at the national level to reach 940 in census 2011. But more alarming is the child sex ratio which shows a consistent declining trend i.e. - 962 in the year 1981, 927 in 2001 and 914 in 2011.

The sex ratio at birth (SRB) is a more accurate indicator of gender biased sex selection as it only reflects the influence of factors that could have come into play before birth. India's sex ratio at birth i.e. 906 girls born per 1000 boys born is far below the international norm of 952 or more girls born per 1000 boys born [2].

Due to gender biased sex selection, an estimated 570 thousand girls were missing annually in India during the period 2001-2008. Evidence from states with sex ratio imbalance shows increased trafficking, increased violence against women and tighter control over their mobility and choices [3]. To prevent this practice of sex selective abortions using the prenatal diagnostic techniques, Government of India enacted the PNDT (Regulation and Prevention of Misuse) Act in1994. Subsequently this Act was amended in 2002 and 2003 to Pre-conception and Pre-natal Diagnostic Techniques (PC and PNDT), (Prohibition of Sex Selection) Act which forbids determination and disclosure of the sex of a foetus for non medical reasons and bans related advertisements.

However these legal efforts have not been able to stop the practice. Earlier it was seen as a problem of the urban middle class but nowadays the practice of sex selection is fast emerging in rural areas as well. Several studies have been done to explore the gender preference among women of reproductive age group in rural areas but no study has attempted to elicit the perception among females of older age group who are often found to force young women in their families to go for sex determination and sex selective abortion.

With this background the present study has been conducted in a rural area of West Bengal to elicit the gender preference, and to determine the knowledge and practice regarding PNDT among ever married women in a rural area of West Bengal.

Objectives

- To study the socioeconomic and demographic characteristics of study population.

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- To elicit the gender preference among study population.
- To assess the perception regarding prenatal sex determination among study population.
- To find out the determinants of poor perception regarding prenatal sex determination among study population.

Materials and methods

Study type

A cross sectional community based descriptive study.

Study period

2 months. (December 2014-January 2015)

Study area

The study was conducted in Dearah village, under the rural field practice area of All India Institute of Hygiene and Public Health, Kolkata.

Study population

All ever married women in that village were taken as study population.

Exclusion criteria

- Those who were currently ill.
- Those who were unwilling to participate in the study.

Sample size

Since no previous study, which elicited the gender preference among ever married women was found; the sample size was calculated with the assumption that 50% of the ever married women will have preference for the male child.

Sample size was calculated by using the formula= $3.84pq/L^2$

Considering allowable absolute error (precision) of 10%, the minimum required sample size was 96 by applying the formula.

Sampling design

All ever married women in Dearah village were lines listed out of which the required number of women (i.e. 96) were selected by simple random sampling.

Study tool

Predesigned and pretested semi structured schedule.

The schedule consisted of two parts. First part included demographic and socioeconomic characteristics and the second part contained questions regarding gender preference and knowledge, attitude and practice regarding Pre Natal sex determination.

This schedule was judged by the experts of the department where necessary corrections were made to enhance the face validity and content validity. Then translation into Bengali was done and semantic equivalence was maintained.

Pretesting of the schedule was done by administering the questions to a small number of representative samples. Necessary modifications were made following their response.

All the information was collected by interviewing the respondents after obtaining informed consent from them during house to house visit.

Ethical issues

Participants were made aware about the nature and purpose of the research study.

They were informed that data obtained from them will be kept confidential and will be used only for research or academic purpose.

Informed verbal consent was taken from them.

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Statistical analysis

Data were analyzed by using SPSS (Version 20).

Descriptive statistics were use to describe the socio-economic and demographic characteristics of the respondents. Continuous variables were presented as mean and standard deviations (SD), and categorical data were presented based on frequency and percentage.

A scoring system was used to assess the perception regarding PNDT among the sample population. Higher the score better was the perception of the respondents. The score was then categorised into two. Those who scored more than median score were considered to have a satisfactory perception and those who scored equal to or below median score were considered to have unsatisfactory perception.

Firstly, an univariate regression was done to ascertain the relationship of perception of PNDT with other variables. Only those found to be significant were entered into the multiple logistic regression model.

P value of <0.05 was considered significant.

Results

Mean age of the respondent was 32.97 years with a SD of 12.58. Majority (35.4%) of the respondents had education up to secondary level and 6.3% of them were illiterate. Majority (84.3%) of the study population were home makers. Mean per capita income was 1454.51 (SD-551.86) and highest number (62.5%) of the respondents belonged to Socioeconomic class IV (Modified BG Prasad Scale 2014). **(Table - 1)**

87.5% (i.e. 86) of the respondents were in the reproductive age group. Among them, 57.1% had a desire for having next child. Of them only 12.5% of women had no gender preference for their next desired child, whereas 60.4% had preference for male child and 27.1% had preference for girl child. Majority (55.1%) of women having son preference had only one girl child. Similarly most of the women (84.6%) desiring for a daughter had one son.100% of women having no gender preference was having one son. **(Table - 2)**

90.6% of the respondents felt that at least one male child is necessary in a family. The reason stated by the majority (63.2%) was that, a male child would take care of his parents in old age. (**Table - 3**)

50% of the study population knew that sex determination can be done during pregnancy but 14.6% of them had no idea about the place from where it can be done. Majority (59.37%) of the study population had the opinion that Parents should be informed during pregnancy regarding the sex of the baby. Although none of the study population had gone for PNDT or sex selective abortion. (**Table - 4)**

In bivariate analysis, the factors which were significantly associated with poor perception regarding PNDT were- age above 49 years, lower caste, lower level of education and low per capita income. These variables were entered into a Multiple Logistic Regression model.

Only low level of education remained significant and the strength of association of the variable was attenuated, when controlling for the other variables in the multivariate analysis. (**Table - 5**)

Discussion

The present study showed that majority (83.3%) of the women of reproductive age group intended to have male as their first child and 100% wanted second child as male with the first female baby. 21.4% women wanted to have their third baby as boy after two baby daughters and nobody wanted a boy even after two baby

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boys. Almost similar kind of preference has been observed in a study done in Chandigarh by Puri, et al. [4].

In this study, higher son preference (60.4%) was observed among women of reproductive age group desiring for next child as compared to studies done by Puri, et al. in Chandigarh [4] and Vadera, et al. [5] who reported that 56% and 58.3% of the women has a preference for a male-child respectively.

In the present study, 90.6% of respondents had a notion that at least one male child is necessary in a family. 63.2 % women responded that the main reason for a preference for a son was old age security, followed by carry forward family name (24.1%). The other reasons were source of income (9.2%), perform last rites (2.3%). This finding is quite similar to the study done in Jamnagar [6] and study done in Hooghly district of West Bengal [7].

50 % were aware that fetal sex determination can be done and 31.25% had knowledge that sex determination can be done in scanning centres. 43.8 % women agreed to the fact that it is a crime. A study by Puri, et al. which showed 65.5% agreed to the fact that it is a crime [4].

The present study showed that the perception regarding PNDT was better among women with higher education. This finding corroborates with the study done by Srivastav et al. in Bareilly district of Uttar Pradesh [8].

The study showed that in addition to male child preference women in older age group (>49 years) had poor perception regarding PNDT and PNDT Act. Very often it is seen that elderly female member (e.g. mother in law) of the family force young women to go for PNDT and sex selective abortion. Therefore, it is very important raise their awareness regarding this issue which can go a long way in addressing the menace of female foeticide.

Strength of the study

- The study attempted to elicit gender preference and perception regarding PNDT among ever married women including women above reproductive age group.
- Community based study.

Limitation of the study

- Small sample size.

Conclusion

In the present study, son preference is linked with education, age of women and income in a family. This highlights the need to improve the education level amongst women. Awareness of women particularly in rural areas is also required to decrease the preference for a male-child. It is the need of the hour to strengthen PNDT Act and to implement strong policies to improve the status of women and to change the attitude of the society towards the female-child.

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Table - 1: Distribution of study population according to demographic and socio-economic characteristics (n=96).

Variables		Frequency	Percentage (%)
Age (In completed years)	<20	2	2.1
	20-34	67	69.8
	35-49	15	15.6
	50-64	6	6.3
	65-73	6	6.3
Religion	Hindu	84	87.5
	Muslim	12	12.5
Caste	General	55	57.3
	SC	41	42.7
Type of family	Nuclear	47	49.0
	Joint	49	51.0
Education level	Illiterate	6	6.3
	Primary (1-4)	21	21.9
	Middle (5-8)	27	28.1
	Secondary (9-10)	34	35.4
	Higher secondary (11-12)	5	5.2
	Graduate and above	3	3.1
Occupation	Housewife	81	84.3
	Unskilled labour	2	2.0
	Shop owner	6	6.2
	Semi professional	7	7.2
Socio Economic Class (Modified BG Prasad Scale 2014)	1 (PCI>=5571)	0	0.0
	2 (PCI 2786-5570)	2	2.1
	3 (PCI 1671-2785)	24	25.0
	4 (PCI 837-1670)	60	62.5
	5 (PCI≤ 836)	10	10.4

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Table - 2: Distribution of women of reproductive age group according to gender preference for the next desired child.

Variables					**Frequency (%)**
Women under reproductive age group					84 (100.0)
Women under reproductive age group who have desired for next child (n=84)					48 (57.1%)
General preference for next desired child (n=48)				Male	29 (60.4%)
				Female	13 (27.1%)
				No preference	6 (12.5%)
Current child status					
	None	1 boy only	1 girl only	2 boys	2 girls
Those who have male preference **(n=29)**	10 (34.4%)	0 (0.0%)	16 (55.1%)	0 (0.0%)	3 (10.3%)
Those who have female preference (n= 13)	2 (15.3%)	11 (84.6%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
No preference (n= 6)	0 (0.0%)	6(100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)

Table - 3: Perception of study population regarding importance of male child (n=96).

Variables		**Frequency**	**Percentage**
At least 1 male child necessary (n=96)	yes	87	90.6
	no	9	9.4
Reasons for son preference (n=87)		**Frequency**	**Percentage**
1. Carries the name of the family		21	24.1
2. Takes care of parents in old age		55	63.2
3. Performs final ritual after death		2	2.3
4. Source of income		8	9.2
5. Provides social security		1	1.2

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Table - 4: Perception of study population regarding Pre Natal Diagnostic Techniques (PNDT) (n=96).

Variables		Frequency (%)	Score
1. Do you Know whether Sex determination of baby (PNDT) can be done during pregnancy?	1.Yes	48 (50.0)	**1**
	2.No	48 (50.0)	**0**
2. If yes, then where PNDT can be done?	1. Govt. Hospital	0 (0.0)	**1**
	2. Private Hospital	11 (11.45)	**1**
	3. Scanning Centre	30 (31.25)	**1**
	4. Don't know	54 (56.25)	**0**
3. Parents should be informed during pregnancy regarding the sex of the baby-	1.Agree	57 (59.37)	**0**
	2.Don't Agree	37 (40.63)	**1**
4. Do you know that PNDT is banned by the Govt. of India?	1. Yes	42 (43.7)	**1**
	2. No	54 (56.3)	**0**
5. Have you ever gone for PNDT?	1. Yes	0 (0.0)	**0**
	2. No	96 (100.0)	**1**
6. Have you ever gone for sex selective abortion after PNDT?	1. Yes	0 (0.0)	**0**
	2. No	96 (100.0)	**1**
7. Have you ever heard about PC-PNDT Act?	1. Yes	42 (43.8)	**1**
	2. No	54 (56.3)	**0**

Table - 5: Association between Unsatisfactory PNDT score and Socio demographic and variables (n=96). (The variables already found significant in bivariate analysis were entered into a Multivariate Logistic model)

Variables		Unsatisfactory PNDT perception score (≤4 i.e. -≤Median) Frequency (%)	OR (CI)	AOR (CI)
Age (in years)	>49 ≤49	10 (83.3) 41 (48.8)	5.23 (1.08-25.64) 1	1.44 (0.2-9.97) 1
Religion	Hindu Muslim	47 (56.0) 4 (33.3)	2.54 (0.70-9.09) 1	_
Caste	SC General	32 (78.0) 19 (34.5)	6.74 (2.67-16.99) 1	3.19 (0.97-10.49) 1
Education	≤Middle >Middle	44 (84.6) 7 (15.9)	29.07 (9.63-87.74) 1	19.25 (5.58-66.34) 1
PCI	≤Median >Median	31 (64.6) 20 (41.7)	2.55 (1.12-5.82) 1	1.69 (0.49-5.83) 1
Occupation	Earning Non earning	43 (56.6) 8 (40.0)	1.95 (0.71-5.32) 1	_
Family type	Nuclear Joint	27 (57.4) 24 (49.0)	1.4 (0.62-3.14) 1	_