

A Study On Preferences And Awareness Regarding Prenatal Sex Determination Among Antenatal Women Attending Obstetrics And Gynecology Outdoor Of Medical College, Kolkata During The Time Period Of January To June, 2012

Partha sarathi Mitra¹, Mandira Dasgupta², Pooja Banerjee³, Prabodh S.Soreng⁴,
Hasibul Hasan Shirazee⁵, Sudhir Adhikari⁶

^{1, 2, 3, 4, 5, 6} Department of Obstetrics and Gynaecology, Medical College Hospital, Kolkata / West Bengal
University of Health Sciences, India

Abstract: Context: Prenatal sex detection, allowing the selective abortions of female fetus is legally a penal offence. It is prevailing in many parts of India resulting in gender imbalance and high masculinity, because Indian value system prefers male child over female. Methods and Material: We interviewed 175 antenatal mothers by systemic random sampling, excluding the unwilling, attending OPD of Medical College and Hospital, Kolkata during January to June, to assess the trends in gender preference and awareness regarding pre-natal sex determination among antenatal women. Result: Our study couples, who are mostly from urban areas, mainly in the 20-30 year age group, mostly from lower economic strata, are well aware of the social menace arising out of prenatal sex determination and female foeticide. Although one quarter had strong male preference, none undergone PCPNDT to know the sex of the offspring, 43% were aware that PCPNDT is legally banned and 54% knew that female foeticide is a crime according to law. Conclusions: Provision and strict implementation of law as well as improvement of socio-economic condition, literacy through public education campaigns and lifting up the moral and ethical values are warranted to eradicate this social crime.

Key words: PCPNDT act, foeticide, sex selective abortion.

I. Introduction

“Pre-natal diagnostic techniques” includes all pre-natal diagnostic procedures and pre-natal diagnostic tests. “Pre-natal diagnostic procedures” means all gynecological, obstetrical or medical procedures such as ultrasonography, fetoscopy, taking or removing samples of amniotic fluid, chorionic villi, blood or any other tissue or fluid of a man or a woman for being sent to a Genetic Laboratory or Genetic Clinic for conducting any type of analysis or pre-natal diagnostic tests for selection of sex before or after conception; “Pre-natal diagnostic test” means ultrasonography or any test or analysis of amniotic fluid, chorionic villi, blood or any tissue or fluid of a pregnant woman or conceptus conducted to detect genetic, metabolic, chromosomal or congenital anomalies or haemoglobinopathies or sex-linked diseases¹

The two standard genetic tests for sex determination, CVS and amniocentesis may, in principle, be performed as early as the 8th and the 9th week but most commonly performed after the 11th and the 15th week of pregnancy has got the risk of damage to the fetus, potentially resulting in miscarriage or congenital abnormalities and so less popular than Ultrasonography which is a simple, non-invasive method that accurately determines sex after 12 weeks gestation. A meta-analysis published in 2011 found that detection of fetal DNA in the mother's blood after seventh week of pregnancy is more than 98% reliable for sex determination².

After the sex is determined, the family decides whether to abort the child or not. Sex-selective abortion, also known as gendercide or female foeticide is the practice of terminating a pregnancy based upon the predicted sex of the baby. The selective abortion of female fetuses is most common in areas where cultural norms value male children over female children. It worsens the sex ratio in India, affecting gender issues related to sex compositions of Indian households and has contributed to a widening imbalance in the child sex ratio.

Pre-Conceptional Pre-Natal Diagnostic Techniques (Regulation and Prevention of Misuse) Act (PCPNDT Act), 1994 prevents the misuse of such techniques for the purpose of pre-natal sex determination leading to female foeticide. The Act prohibits determination and disclosure of the sex of fetus, also prohibits any advertisements relating to pre-natal determination of sex and prescribes punishment i.e. imprisonment and fine for its contravention. In spite of the strict law and its implementation, population experts have revealed that female foeticide is being practiced at alarming rate in India. The sexual discrimination is not limited to poorer or backward classes but also in prosperous urban and prospering rural areas applying that this phenomenon is being practiced by educated and prosperous families³. Public education to raise awareness among common people is the essence to eradicate this social menace.

II. Methodology

Our study was conducted to assess the trends in gender preference among would be mothers and also awareness regarding pre-natal sex determination among antenatal women attending antenatal OPD of Medical College and Hospital, Kolkata. The mothers attending the antenatal clinic and willing to participate in the study during the study period of January to June, 2012 was included as study subjects after explaining them the aim and objective of the study and after obtaining their informed consent in a prescribed format. They were interviewed face to face using written questionnaire after establishing rapport with the help of the female OPD attendant. Every fourth patient on a fixed day in every week were interviewed with a pre tested structured interview schedule. A total of 175 pregnant women were interviewed and were included by systemic random sampling excluding the unwilling. General ethical principles according to Helsinki Declaration (1964) and Geneva Declaration were followed.

The parameters studied were:- i address. ii. Age. iii. Occupation of husband/wife. iv. Family income. v. Family members. vi. Parity. vii. Age at marriage. viii. Age at 1st pregnancy. ix. Previous pregnancy. x. Previous MTP. xi. Spacing of birth. xii. Concept of ideal no. of children xiii. Any gender preference for 1st child. xiiii. Whether present pregnancy is planned or not. xv. Whether wants to know the fetal sex xv. Any personal /familial gender preference xvi. Whether she knows any place for sex determination xvii. Whether she knows any local/ cultural belief/ method for sex determination. xviii. Whether she uses any method for sex selection. xix. Whether she knows about PCPNDT Act. xx. Whether she knows about decreasing number of girl children in India xxi. Whether girls are tortured in her family etc.

III. Results

We conducted our study by interviewing randomly selected 175 antenatal mothers. 30 of them were from rural and the rest from urban background Table-1. 25 of them were below 20 years and the rest above Table-3. 90 of them were primiparous and the rest multiparous. Most (115) were married between 18 to 30 years of age and the rest below 18 years. Age at 1st confinement between 18 to 30 years was found in 155 and the rest below 18 years. 25 of them practiced spacing and the rest either did not practice or had no idea regarding spacing Table-4.

Regarding past pregnancy in multi, none underwent PCPNDT for sex determination, 30 of them underwent MTP but not due to known fetal sex. 165 patients opined that ideal number of issues should be two. Regarding present pregnancy, which was a planned pregnancy in 75 of the study group, rest said it was unplanned. No one knew fetal sex but 50 of them intended to know it. Gender preference by the patient herself was male in 45 patients, was female in 10 and no preference in 120. Gender preference by her family was almost similar but no one had any idea of any place or lab which determines fetal sex Fig-4. No one knew any cultural/ local method for diagnosing as well as modulating fetal sex. 75 of them knew that prenatal sex determination is illegal which may result in fine and punishment and rest were unaware of this legal aspect. 95 of them knew that female feticide is offence but the rest had no idea. 95 of them had heard about gender imbalance in our society. None reported any incidence of torture of girls in their family Fig-3 Table-4.

Regarding income, 110 of the total had family income below Rs 5000 pm, 60 women had family income between Rs 5000 - 10000 pm and the rest had above Rs 10000 pm. Family size below 3 was found in 10 women, 3 – 5 in 100 and more than 5 in 65 women. All of them were housewives and their husbands were mostly in part time service or self employed Table-2.

IV. Discussion

Women are murdered all over the world. But in India a most brutal form of killing females takes place regularly, as female feticide--the selective abortion of female fetuses even before they have the opportunity to be born. Aborting female fetuses is socially acceptable in India (although legally banned) mostly due to prospect of having to pay dowry for a daughter, perceived as an economic burden, while sons offer future security and can perform the rites for the souls of deceased parents and ancestors. PCPNDT are misused, allowing the selective abortions to proliferate. The deficit of females was found in prosperous urban and prospering rural areas than poor and tribal areas, applying that this phenomenon is being practiced by educated and prosperous families and have significantly contributed to the high masculinity ratio in India. As per the latest Census in the year 2011, the total female sex ratio in India is 940 per 1000 males and the female child sex ratio is 944 girl children per every 1000 boy children of the same age group. The overall female sex ratio has increased by 0.75 % in the Census 2011 as compared to the previous Census of 2001⁴. There is reduction of female-to-male sex ratio from 945 per 1000 in 1991 to 927 per 1000 in 2001⁵, Fig-1. The Census 2011 report reflects highest female sex ratio in Chhattisgarh (991 per 1000 male) and lowest in Daman & Diu (618 per 1000 male)⁴. Generally the sex ratios in the northwestern states are highly masculine, whereas ratios in the southeastern states are more favorable to females⁶, Fig-2.

Our Prime minister has remarked, female feticide in our country is a 'national shame'. It is a major threat to our country because it has affected the entire social structure. It increases violence against women, denial of basic right to them and increases in sex related crime. It has adverse impact on reproductive health of women because of repeated pregnancies and abortions and also on mental health as they are blamed for their inability to produce son.

Present article is an attempt to review the factors accountable for the continuing sex-ratio degradation, dimensions of the recent imbalance its origin, mechanisms, social characteristics and its implications. Analysis also points to the positive linkage between abnormal sex ratio and better socio-economic status and literacy. No one in the study group had undergone PCPNDT, but 26% of the couple has strong gender preference for male baby, 6% for female and the rest had no choice. 43% of the total couples were aware that PCPNDT is legally banned in India (rest, mostly illiterate, were not) and 54% knew that female feticide is a crime according to law. The recent Indian scenario of reduction of female-to-male sex ratio is well known to 55% of the couples. Although one quarter of our study group had strong choice of having a male child, nobody had any wish of determining sex prenatally, none undergone any lab testing or cultural/ ethnical method to know the sex of the fetus. So we can interpret that our study couples who are mostly from urban areas, mainly in the 20-30 year age group, but mostly from lower economic strata, are well aware of the social menace arising out of prenatal sex determination and female feticide prevailing in the other parts of our country.

In one study of middle class Indians in Punjab, 63% of women and 54% of men declared that PCPNDT (amniocentesis) should be undertaken if the couple has no son and more than two daughters. If that test shows that the fetus is female, 73% of women and 60% of men felt that it should be aborted. The top three reasons cited in that study for aborting the female fetus include "a male dominated society" (by 23%), "social stigma attached to having a daughter" (by 19%), and "difficult to afford a dowry" (by 17%)^{7,8}.

In another study by Deshpande et al conducted in Western Maharashtra it was evident that there was considerable decline in sex ratio in Western Maharashtra and other economically empowered districts while increment in child sex ratio is evident in Nandurbar, a tribal district. Child Sex ratio is not lowest in poor tribal districts or other backward areas, but in prosperous Western Maharashtra and other economically empowered districts⁹. In another study carried out in two villages of Maharashtra, sex ratio is 779 per 1000 in Hasnapur, where majority of population is Muslim and 725 per 1000 in Chandrapur, where majority of population is Hindu¹⁰.

Understanding the social context behind sex selection, rather female deselection is the key to deciphering the dynamics of sex ratio in India. Wish for a male child is in order to make familial propagation, carry on the family name, security for the family, labor provision, performance of ancestral rites and religious functions at the funeral to assist in the salvation of soul of the parents. Whereas female children not only leave home when they marry but also merit an economic penalty through dowry charges while a son makes a daughter-in-law, an additional assistance in household work alongwith an economic reward through dowry payments.

Provision and strict implementation of law would not suffice to eradicate this social menace. Besides improvement of socio-economic condition, literacy through public education campaigns and lifting up the moral and ethical values are warranted. Social movements and legal procedures against the dowry system should be intensified. It should be emphasized that a girl child, if she gets adequate family support like her brother in the form of literacy, increased access to higher education, job training programs and empowerment, could be as good as a male child, if not more, in terms of social physical emotional and economic support to her parents. Every daughter is a future mother: how she could be a burden to us. We should raise the awareness and seek attitudinal and behavioral change.

V. Conclusion

The paper aims to explicate those factors accountable for the continuing imbalance in the sex ratio and masculinization over the whole of the 20th century due to traditional practice of female infanticide and the current practice of female foeticide in the contemporary period as the Indian value system has been imbued with a relatively higher preference for sons. Our society has still a long way to go to eradicate this social problem since it is a problem that comes from the mind sets of the people. The general notion of girl child being a burden has to be changed from the minds of people. When awareness alone can't stop the menace strong legal steps by the government should be taken.

Appendix

1. CVS:- Chorionic Villous Sampling
2. OPD:- Outdoor Patients Department
3. MTP:- Medical termination of Pregnancy

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A study on preferences and awareness regarding prenatal sex determination among antenatal women

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Table: 1

Residence : Rural (n=175)	Residence : Urban (n=175)
30	145

Table: 2

Family Income <5000 pm (n=175)	Family Income 5000-10000 pm (n=175)	Family Income >10000 pm (n=175)
110	60	15

Table: 3

	<18 years (n=175)	18-30 years (n=175)
Age of the subject	25	150
Age at her marriage	60	115
Age at her 1 st pregnancy	40	135

Table: 4

	Yes (n=175)	No (n=175)
Whether present pregnancy is first pregnancy	90	85
Whether present pregnancy is planned	75	100
Whether wants to know the sex of the fetus	50	125
Whether she has gender preference for <i>male</i> child in this pregnancy	45	130
Whether her family have gender preference for <i>male</i> child in this pregnancy	53	122
Whether she knows any place for sex determination	0	175
Whether she knows any local/ cultural belief/ method for sex determination.	0	175
Whether she uses any method for sex selection.	0	175
Whether she knows about PCPNDT Act	75	100
Whether she knows about decreasing number of girl children in India	95	80
Whether girl children are tortured in her family	0	175

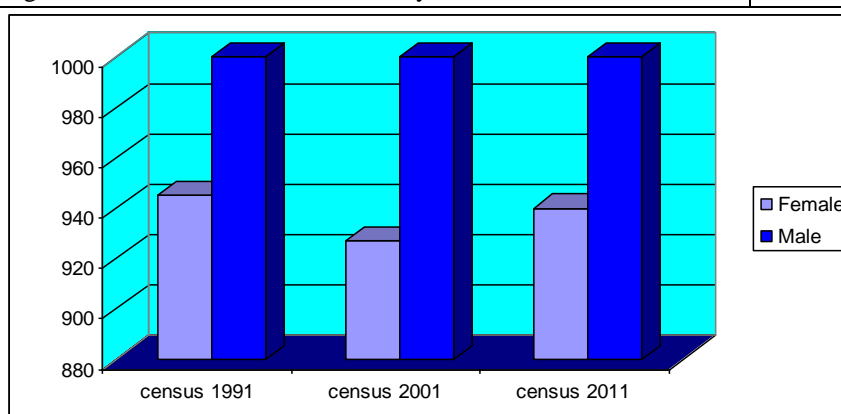


Figure-1 Female to Male sex ratio in three consecutive Census source: <http://www.censusindia.net>

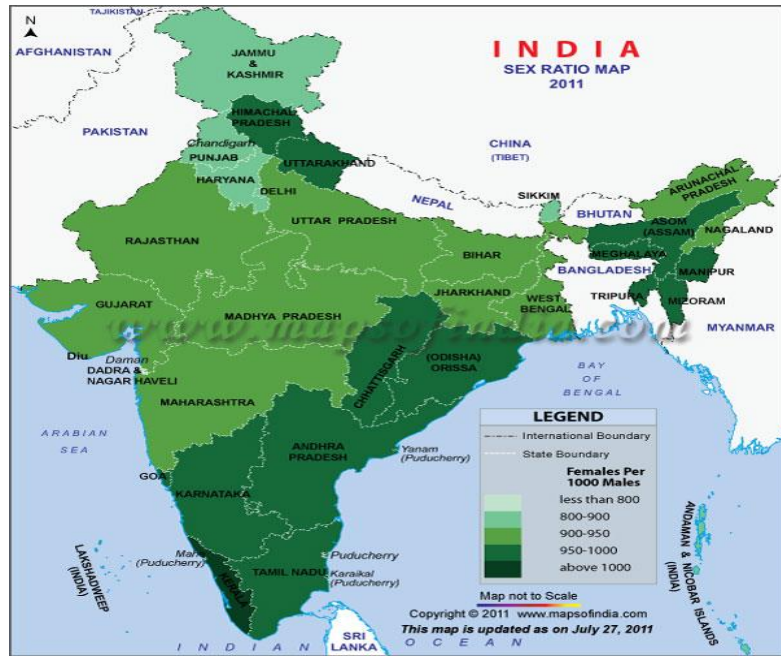


Fig-2 Sex Ratio Map of India, 2011 source: www.mapsofindia.com

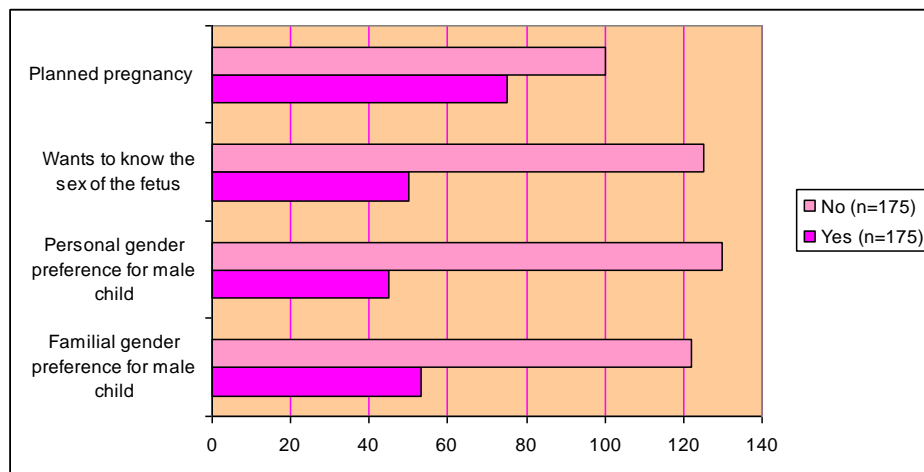


Figure-3

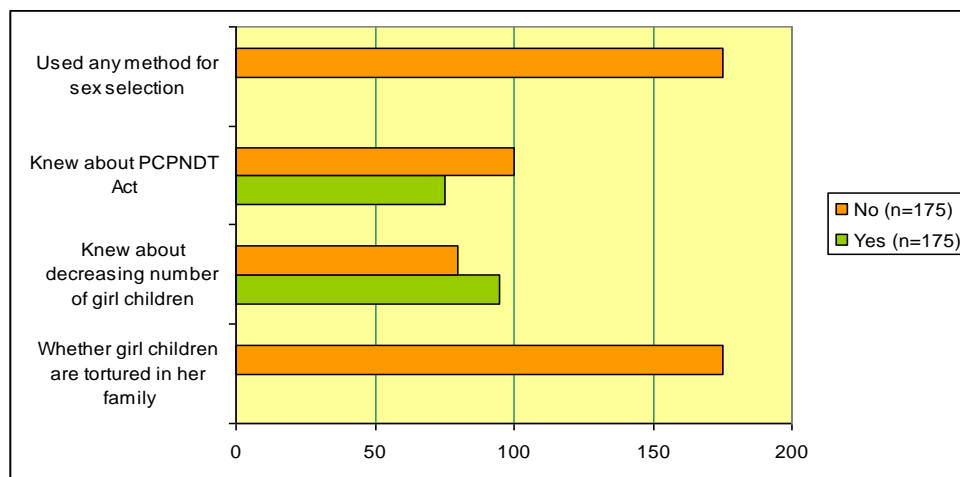


Figure-4