

Sex-selective abortions in India: A behavioural epidemic

Suman Saurabh¹, Sitanshu Sekhar Kar², Dhruv Kumar Pandey³

^{1,3}Junior Resident, ²Assistant Professor, Department of Preventive & Social Medicine, Jawaharlal Institute of Postgraduate Medical Education & Research, Puducherry, 605006

Sex-selective abortions have been known to be a problem in India. A study titled "Trends in selective abortions of girls in India: analysis of nationally representative birth histories from 1990 to 2005 and census data from 1991 to 2011" by Jha P et al was published in Lancet in May 2011 presented the first nationally representative analysis of trends in sex-selective abortions in India. It came as an aftermath of the provisional 2011 census release which showed a fall in 0-6 year sex ratio from 927 in 2001 to 914 in 2011¹. 56 percent of Indian districts have child sex-ratio of less than 915², spreading to areas where the sex-selective abortions were known to be negligible. This was in contrast to the fact that overall sex-ratio increased from 933 to 940^{1,3}. Such findings necessitate a more specific approach to this problem by looking at the trends in child sex-ratio unlike the crude analysis of overall sex-ratios adopted earlier. Also this study provides an estimate of sex-selective abortions from 1980 to 2010 ranging from 4.2-12.1 million².

Nationally representative data of 0.25 million births from the three NFHS was analyzed by order of birth, socioeconomic status, years of education, area of residence and religion^{2,4}. Accuracy of NFHS birth history was stated from previous studies⁴. The conditional sex-ratio of the second birth when the firstborn was a girl fell from 906 per 1000 boys in 1990 to 836 per 1000 boys in 2005, a decline of 0.52% per year². This trend was also found to be significant after doing a linear regression analysis ($P=0.002$). By contrast no decline was detected if the firstborn was a boy or for any of the firstborns. Decline of sex ratios were significant in the mothers with 10 or more years of education and those from the wealthier households. On the other hand those with no education and those from poorer households showed no decline. Using the census data the gender gap in 0-6 years age group due to abortions was estimated as ris-

ing from 0-2.0 million in the 1980s to 1.2-4.1 million in the 1990s and to 3.1-6.0 million in the 2000s². Sex ratio of 950-975 at birth was taken as the baseline without sex-selective abortions.

The findings were interpreted in the light of earlier studies. Studies had attributed the abortions to increasing use of prenatal diagnostic techniques compounded with son preference and small family norm⁵. Effect of decreasing fertility levels (3.8 in 1990 to 2.6 in 2008)⁶ has been noted on the tendency to abort female fetuses to have at least one boy⁵. In the discussion the failure of PNDT act has been attributed to its faulty implementation and the mainly unregulated nature of prenatal diagnostic and abortion services.

This study provides enough evidence to wake up to the problem of sex-selective abortions. The major problem faced by the authors necessitating the use of NFHS data is the inaccurate and often incomplete birth registry in India. The estimate of 4.2-12.1 million abortions during 1980-2010 has been stated as crude by necessity as the ideal sex-ratio at birth was taken as 950 to 975. This has been sourced from North American and European countries where presumably the social pressures for sex-selection do not exist. Such assumption in the Indian context is questionable.

Why do we need to look at the problem of sex-selective abortions? In India, a study during 1980-82 showed a strong correlation between homicide rates in individual states across the country and the sex ratio in those states, after controlling for potential confounders such as urbanization and poverty⁷. The authors concluded that there was a clear link between sex ratio and violence as a whole, not just violence against women as might be assumed when there is a shortage of females. A repeat of this analysis showed that this relationship between sex ratio and homicide rates in the Indian states persisted through the late 1990s⁸. A surplus of unmarried men of low socioeconomic status will lead to

Address for Correspondence:

Dr Sitanshu Sekhar Kar, Assistant Professor of PSM, JIPMER, Puducherry
E mail Id: drsitanshukar@gmail.com

increased antisocial behaviour threatening the stability of society⁸.

The analysis of socioeconomic and educational status of mothers has provided valuable insight into the dynamics of sex-selective abortions. This can be explained by better access to prenatal diagnosis and abortion services in the richer and more educated households.

A concern which has arisen from the education analyses of mothers in various studies^{2,9} is how far the women are responsible for initiating the decision of abortion in a largely male-dominated society. History of sex-selective abortion within social networks and increased community knowledge of the same has been associated with more sex-selective abortions⁹. Furthermore child sex-ratio decline has involved most states of India^{1,3}. Therefore at this juncture we suggest classifying this practice as a 'behavioural epidemic'. More studies need to be conducted to ascertain the psychological and within family processes leading to sex-selective abortions. Dowry has long been known to be the perceived cause of economic burden associated with the girl child in Indian society, leading to sex-selective mindset¹⁰. The analysis of psychosocial determinants is the need of the hour as any pertinent behavior change communication can only be based on it. More information is required on the extent to which ultrasound is contributing to sex-selective abortions as it is not clear from studies done till date^{11,12}.

On a positive note, there has been a reduction in decline rates of child sex ratio, from 1.9% (from 945 to 927) in 1990s³ to 1.4% (from 927 to 914) in 2000s¹. There has also been an improvement in child sex-ratio in Haryana, Punjab, Chandigarh, Himachal Pradesh and Gujarat as per 2011 census¹. This is probably due to increased awareness and stricter implementation of PNDT act in certain areas¹³.

Establishment of surveillance cells and mandatory recording of all diagnoses made by ultrasound machines are some of the recommendations arrived at the All India Conference on Implementation of the PC and PNDT act¹⁴. Example can be taken from Salem district of Tamil Nadu where awareness campaigns by government and NGOs has resulted in an increase in child sex-ratios¹⁵. What must be remembered is that this issue is closely linked to the empowerment of women as included in the Millennium Development Goals.

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