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Research Article

Understanding the perceived reasons and practices related to gender preferences in an urban population of Puducherry: an exploratory study

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ABSTRACT

Background: Declining child sex ratio in India even after enactment of PCPNDT Act is a major concern from public health point of view. Objectives: 1) To find out the perceived reasons and preference for the gender of the prospective child 2) to find out practices related to ultrasound (USG) scanning during pregnancy and abortion and 3) to find out the child sex ratio in the selected urban field practice areas of JIPMER, Pondicherry.
Methods: A community-based explorative study was conducted during the months of June and July 2013. A pre-tested semi-structured questionnaire was used to collect information on the socio-demographic details, sex preference for the prospective child, and practices related to USG scanning during pregnancy and abortion among 270 households in the study area of urban Puducherry. One Focus Group Discussion (FGD) was organized to explore and understand the qualitative aspect of gender preference in the study area.
Results: Among the respondents who had not completed their families (67), majority (60%, 40/67) didn't have any gender preference. Out of the rest 27, 16 respondents (60%) preferred their prospective child to be male. The common reasons for male preference were 1st child being female, dowry and other financial reasons. Majority (62%) of the USG during pregnancy were done in private set up. Nearly three fourth of the abortions took place either in private set up or at home. Nearly 37 % of respondents felt that proportion of females was less in their area as compared to males. Nearly 6% (16/270) of the respondents were aware of existence of practice of sex determination and female foeticide in their area. The child sex ratio was found to be 1012 per 1000 males.
Conclusions: Male preference in the backdrop of higher proportion of practice of abortion in the private set up, along with participants' awareness of existence of sex determination practices points towards plausible female foeticide. There is a need to generate stronger evidence to confirm these suspected links.

Keywords: Community-based study, Child sex ratio, Explorative study, Female foeticide, Gender preference

INTRODUCTION

Females of any species are very crucial for the survival of that species. This applies to human race as well. Many Asian countries have reported falling sex ratio favouring males.[1] Over the years different National Dailies in India have been reporting decline in child sex ratio in different parts of the country.[2-6] The current sex ratio and child sex ratio of India are 940 females per 1000 males and 914 girls per 1000 boys respectively.[7,8] The decennial Census also reported declining trend in sex ratio as well as child sex ratio.[8-10]

The decline in child sex ratio in several states of India is mainly due to high Female Infant Mortality Rate (FIMR) as a result of many social, religious and economic factors.[11] A study from Ballabgarh, Haryana has reported significant increase in proportion of under five female deaths from 15% in 1992 to 42% in 2011.[12] Female children are traditionally neglected with respect to health and nutrition.[13] However, the possibility of female foeticide cannot be ruled out. Various studies and reports have recorded declining trend in sex ratio at birth leading to imbalance in child sex ratio.[12] National level data from India showed consistent decline in proportion of people who wanted more sons than daughters from 41% (NFHS 1) to 25.4% (NFHS 3) and preference for having at least one son from 90% (NFHS 1) to 81% (NFHS 3), but still remains high. The preference for sons over daughters compared to preference for daughters over sons is still high in India (22.2% vs. 2.6%) and comparatively high in Tamil Nadu (5.7% vs. 3.1%).[14] Gender inequalities, marriage anxieties, economic liabilities and responsibilities of wives to produce patriarchal family are few of the reasons for seeking technology help and antecedent female foeticide.[1]

Pondicherry (1038 per 1000 males) and Kerala (1084 per 1000 males) are the only Union Territory/state from India with sex ratio favouring females.[8] However, this is not the same when it comes to child sex ratio. News-papers have reported falling child sex ratio favouring males in Pondicherry pointing towards possible female foeticide. The census reports also displayed similar results with respect to child sex ratio in Pondicherry which has declined from 967 (Census 2001) to 965 (Census 2011) female child per 1000 male child.[8] Review of Urban Health Centre Census recorded a lower child sex ratio (875 girls per 1000 boys, 2013) of the population catered by the centre compared to child sex ratio (965 girls per 1000 boys, Census 2011) of Pondicherry. Female children are more resistant to diseases and death as compared to male children provided their nutrition and health are taken care as that of male children.[15] The lower conditional child sex ratio compared to child sex ratio, the situation otherwise termed as "Missing women" by Nobel Leaurate Amartya Sen points toward plausible female foeticide. With this background, the present study was planned 1) To find out the perceived reasons and preference for the gender of the prospective child 2) to find out practices related to USG scanning during pregnancy and abortion and 3) to find out the child sex ratio in the selected urban field practice areas of JIPMER, Pondicherry.

METHODS

A community-based explorative study was conducted in the service areas of Jawaharlal Institute Urban Heath Centre (JIUHC), Kurusukuppam, Pondicherry during the months of June and July, 2013. JIUHC, Kurusukuppam caters to a population of about 9000, spread over four urban wards (Kurusukuppam, Vazhakulam, Chinnayapuram and Vaithikuppam), through family folder based comprehensive primary health care. Socio-demographic details and health information of all family members are updated through regular hospital census, and entered in the family folders maintained at JIUHC. The centre also provides training for interns on health care delivery through primary care approach.

Two urban wards, Chinnayapuarm and Vithikuppam, were selected purposively, firstly because all wards were culturally and socio-demographically similar and secondly, because preliminary analysis of previous years records showed lowest child sex ratio in these two wards. All the households from these two wards satisfying the following criteria were considered eligible for the study. Criteria for eligibility of households were one or more of the followings, 1) households with at least one under six child 2) households with at least one woman who had experienced pregnancy in the last six years and 3) households with at least one eligible couple.

Trained medical interns made house-to-house visits and enrolled all eligible households after obtaining informed consent. The mothers of the under six children or any women who had experienced pregnancy in the preceding six years and in their absence, wife of the eligible couple was interviewed using a pre-tested semi-structured questionnaire. The socio-demographic details of the family, information on sex preference for their prospective child (only when family is incomplete), details of any event of pregnancy and abortion in the family in the last six years were noted. Descriptive analysis was done using Microsoft excel and Statistical Package for Social Sciences (SPSS) version 16.0. Continuous variables were expressed in terms of mean with standard deviation and categorical variables were expressed in terms of proportions and percentages. Child sex ratio and conditional child sex ratio were calculated and expressed as number of girls per 1000 boys. The conditional child sex ratio was calculated when 1st child was a female. Confidentiality and anonymity was maintained throughout the study.

RESULTS

A total of 270 eligible households participated in the present study. Majority (96%) of the respondents were mothers of under-six child or wife of the eligible couple. Mean age of respondents was 33.5 (SD 9.45) years. Majority of respondents had studied upto class 10th (62%) and were either unemployed or housewives (96%). The socio-demographic details of the respondents are given in Table 1.

About one fourth of respondents had not completed their families. Majority (59.7%, 40/67) of the respondents, who had not completed their families, didn't have any sex preference for the child in the prospective pregnancy. However, nearly 60% (16/27) of the families, who had sex preference, preferred the prospective child to be male.

Reasons for male preference, as perceived by the respondents were first child being a female (13/16), dowry related (2/16) and other financial reasons (1/16). The first child being male was the only reason for preference of prospective child to be female.

Table 1: Socio-demographic profile of the respondents from urban Pondicherry (N=270).

Variable	Category	Frequency	Percentage
Age (years)	≤20	9	3.3
	21-30	113	41.9
	31-40	102	37.8
	>40	46	17
Education	No formal education	51	18.9
	Upto class X	168	62.2
	Beyond class X	51	18.9
Occupation	Unemployed / Housewife	252	93.3
	Employed	18	6.7

Table 2 describes the pregnancy events in the families of respondents in the last six years. There were a total of 150 pregnancy events (includes live births, still births or abortions) reported among 270 families in last 6 years. Nearly 84% (126/150) of the pregnant mothers had undergone ultrasound (USG) scanning during pregnancy. All the pregnant mothers in Vaithikuppam had undergone USG scanning during pregnancy. Majority (62%) of USG during pregnancy were done in private set up. Proportion of pregnant mothers who underwent USG scanning in private set up was higher in Vaithikuppam (Table 2).

Table 2: Details of USG scan during pregnancy in the last 6 years among the respondents from urban Pondicherry.

Details of USG scan during pregnancy in the last 6 years among the respondents from urban Pondicherry		
Households with pregnancy events in the last 6 years	Yes	150 (55.6%)
	No	120 (44.6%)
USG procedure performed (N=150)	Yes	126 (84%)
	No	24 (16%)
Area (N=150)	Vaithikuppam (n=41)	41 (100%)
	Chinnayapuram (n=109)	85 (78%)
Setting where procedure was performed (N=126)	Private	78 (61.9%)
	Government	48 (38.1%)
Proportion of procedure done in private setting	Chinnayapuram (n=85)	47 (55.3%)
	Vaithikuppam (n=41)	31 (75.6%)

Out of the 150 households who had pregnancy events in the last 6 years, 26 households reported abortion during the same period. Nearly three fourth of the abortions took place in either private set up (54%) or at home (20%). The proportion of abortions in private set up or home was more in Vaithikuppam (78%, 7 out of 9) as compared to Chinnayapuram (65%, 11 out of 17). In nearly 20% and 8% of abortion cases, the reason for undergoing abortion was inadequate spacing and unwanted pregnancy respectively. The other reasons for abortion are given in Figure 1. Nearly 37% of respondents felt that the number of all females, in their area, was less compared to males (Table 3). Though majority 79% (78/99) could not attribute any reasons, others had the opinion that dowry burden, no employment, difficulty in bringing up female child and more deaths among females during tsunami were responsible for less number of females than males in their area. One respondent specifically attributed female foeticide for decline in female population compared to male population in the study area.

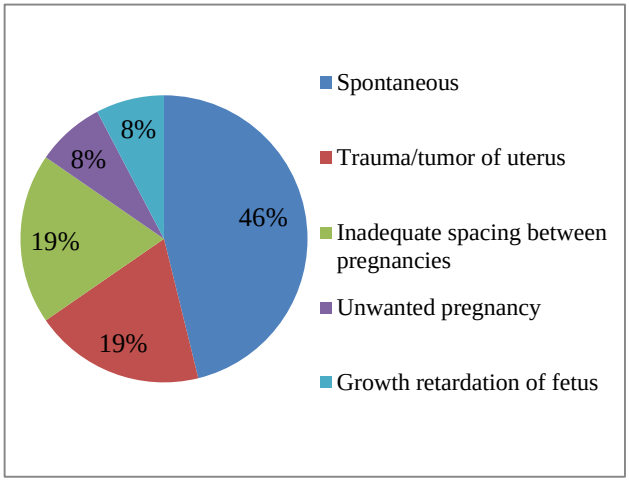

Figure 1: Reason for abortion among the respondents in urban Puducherry (N=26).

Table 3: Gender composition in JIUHC service area as perceived by respondents (n=270).

Gender composition	Responses	Percentage (%)
Female > Male	64	23.7
Female < Male	99	36.7
Female = Male	90	33.3
Don't know	17	6.3
Total	270	100.0

Nearly 6% (16/270) of the respondents were aware of existence of practice of sex determination and female foeticide in their area. Though majority of respondents (11/16) opined that sex determination was carried out in the private set up, some (3/16) had informed its existence in government hospitals as well.

The child sex ratio was found to be 1012 girls per 1000 boys.

As per the respondents of Focus Group Discussion, there was an imbalance in sex ratio, favouring more towards males. Male child preference was mainly because of dowry, huge cost incurred in marriage of a girl, and girls not having the same range of employment opportunities as in case of boys. Respondents informed that sex selective abortions were being practiced in Pondicherry and some parts of Tamil Nadu adjacent to Pondicherry, mostly in the private set up. One respondent even admitted of undertaking sex determination of foetus, though didn't undergo abortion because of favourable male gender of the foetus.

DISCUSSION

Aim of the Pre-Conception Pre-Natal Diagnostic Techniques (PCPNDT) Act, 1994, was to bring about a gender balance in the society. However, the child sex ratio favouring boys has not changed even after introduction of PCPNDT Act.[16] Therefore focus should be shifted from provider of sex selective services to the change in community attitude towards sex selective services through social movement.[17]

Nearly one fourth of the respondents, who had not completed their families, had male child preference. This was lower than the study from urban slum in New Delhi (male child preference 60%).[18] Similar male sex preference was reported from slums of Mumbai.[19,20] Out of the 10% of families reporting abortion in the last 6 years, 50% were induced abortion. This is low compared to study from urban slum of Mumbai.[19] In nearly one third of the cases of abortion, the reason being unwanted pregnancy or lack of spacing. Though, none of the respondent reported about female selective abortion, the possibility of such events cannot be ruled out.

In the present study, nearly 37% of respondents felt that female population is less compared to male population. Though many could not attribute any reason for the same, others opined that dowry burden and unemployment are some of the important reasons. Similar findings were also noted in the focused group discussion. Indirectly it points toward family pressure. A study among migrated South Asian families to US reported high female foetus abortion, the most common reason being pressure from family for son preference.[21] According to few respondents, sex determination was being performed in some of the government hospitals as well. A study from Mangalore also reported existence of sex determination in government set up.[22]

Generally, females are biologically more resistant to diseases and in similar environment deaths among females are less than males.[15] Though the child sex ratio found in the present study favours females, there was a wide variation in proportion of girls to boys when the 1st child is a female. Significantly low conditional child sex ratio was reported by Jha et al. from a nationwide survey of 1.1 million houses in India.[23] Sahni et al. also reported significantly lower child sex ratio in Delhi if the first child is a girl.[24] Very low proportion of girls to boys when 1st child is a female compared to the 1st order birth itself in Vaithikuppam than Chinnayapuram contradicts the original theory by Mr. Amartya Sen which talks about more females survivability compared to males.[15] Given the fact that more pregnant mothers had under gone USG scanning during pregnancy in private set up and higher proportion of abortion in Vaithikuppam, the most plausible reason for this "Missing women" could be sex selective abortion targeting female foetus.

Continued child sex ratio favouring boys, even after two decades of enactment of PCPNDT Act, warrants shifting of focus to protect and restore the Fundamental Right, health and social status of women.[25] Dowry and other financial reasons have forced many families to go for sex selective abortions.[26] Strong actions against perpetrators of dowry, violence against women along with social and economic movement to empower women will address this social evil.[27] Intensive IEC activities is the need of the hour to bring about social reform to curb this social evil.[28]

The strength of the present study was mixed method design, in which qualitative part supported the quantitative part. Conditional sex ratio which is a better and reliable indicator for sex selective abortion than sex ratio at birth was considered in the present study. Previous research has shown that conditional child sex ratios are masked by sex ratios at birth, and thus sex ratios at birth are less reliable in estimating selective abortions.[23] The major limitation was that the results cannot be generalized to whole of urban Pondicherry as two wards were purposively selected for the present study.

In conclusion, male gender for the prospective child was preferred by majority of the families. Most of the USG scanning during pregnancy and abortions were undertaken in private setting. Respondents informed about existence of sex determination of prospective child and female foeticide during house-to-house survey as well as focus group discussion. All these point towards possible practice of sex determination and female foeticide in the area. However, the findings of the present study have to be substantiated by conducting further research with stronger methodologies and larger samples. Health education and behaviour change communication directed towards change in community and societal attitude should be tuned to curb this social evil.

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REFERENCES

1. Unnithan-Kumar M. Female selective abortion - beyond "culture": family making and gender inequality in a globalising India. Cult Health Sex 2010;12(2):153-66.
2. The Times of India. MSU study to assess declining sex ratio in 20 villages, India, 2015. Available at: http://timesofindia.indiatimes.com/city/vadodara/MSU-study-to-assess-declining-sex-ratio-in-20-villages/articleshow/46084357.cms. Accessed 1 February 2015.
3. Siwach SS. Gender bender: Sex ratio below 500 in more than half of Haryana's village. India. The Times of India, 2015. Available at: http://timesofindia.indiatimes.com/city/chandigarh/Gender-bender-Sex-ratio-below-500-in-more-than-half-of-Haryanas-village/articleshow/46075481.cms. Accessed 31 January 2015.
4. Kalita PK. Assam announces cash incentive to save daughters. India. The Times of India, 2015. Available at: http://timesofindia.indiatimes.com/india/Assam-announces-cash-incentive-to-save-daughters/articleshow/46007211.cms. Accessed 25 January 2015.
5. Mehta SM. Child sex ratio getting unhealthy in district. India. The Times of India, 2015. Available at: http://timesofindia.indiatimes.com/city/visakhapatnam/Child-sex-ratio-getting-unhealthy-in-district/articleshow/46152387.cms. Accessed 7 February 2015.
6. Tewari AT. Canada to launch Beti Bachao Abhiyan in Gujarat. India. The Times of India, 2015. Available at: http://timesofindia.indiatimes.com/india/Canada-to-launch-Beti-Bachao-Abhiyan-in-Gujarat/articleshow/46004152.cms. Accessed 24 January 2015.
7. The Times of India. Major highlights of the Census India, 2011. Available at: http://timesofindia.indiatimes.com/india/Major-highlights-of-the-Census-2011/articleshow/7833854.cms. Accessed 31 March 2011
8. Registrar General and Census Commissioner, Ministry of Home Affairs, New Delhi, Govt. of India. Gender composition of the population, Census of India, 2011. Available at: http://censusindia.gov.in/2011-prov-results/data_files/india/Final_PPT_2011_chapter5.pdf
9. Dhar A. At 914, child sex ratio is the lowest since Independence. The Hindu, 2011. Available at: http://www.thehindu.com/news/national/at-914-child-sex-ratio-is-the-lowest-since-independence/article1588872.ece. Accessed 1 April 2011.
10. Mohanty S, Rajbhar M. Fertility transition and adverse child sex ratio in districts of India. J Biosoc Sci. 2014;46(6):753-71.
11. Khosla T. The plight of female infants in India. J Epidemiol Community Health. 1980;34(2):143-6.
12. Krishnan A, Nawi NG, Byass P, Pandav CS, Kapoor SK. Sex-specific trends in under-five mortality in rural Ballabgarh. Indian Pediatr. 2014;51(1):48-51.
13. Khera R, Jain S, Lodha R, Ramakrishnan S. Gender bias in child care and child health: global patterns. Arch Dis Child. 2014;99(4):369-74.
14. International Institute for Population Sciences (IIPS) and Macro International. National Family Health Survey (NFHS-3), 2005-06: India. Volume I. Mumbai: IIPS; 2007.
15. Sen A. Missing women. Br Med J. 1992;304:586-7.
16. Subramanian SV, Selvaraj S. Social analysis of sex imbalance in India: before and after the implementation of the Pre-Natal Diagnostic Techniques (PNDT) Act. J Epidemiol Community Health. 2009;63(3):245-52.
17. Bagcchi S. Indian health minister convenes experts to tackle fetal sex selection. BMJ. 2014;349:g6465.
18. Bhagat N, Laskar AR, Sharma N. Women's perception about sex selection in an urban slum in Delhi. J Reprod Infant Psychol. 2012;30(1):92-104.
19. Tragler A. A study on sex ratio at birth in suburban slums of Mumbai. Indian J Public Health. 2011;55(2):128-31.
20. Calhoun LM, Nanda P, Speitzer I, Jain M. The effect of family sex composition on fertility desires and family planning behaviours in urban Utttar Pradesh, India. Reprod Health. 2013;10:48.
21. Puri S, Adams V, Ivey S, Nachtigall RD. "There is such a thing as too many daughters, but not too many sons": a qualitative study of son preference and fetal sex selection among Indian immigrants in the United States. Soc Sci Med. 2011;72(7):1169-76.
22. Kumar N, Darshan B, Unnikrishnan B, Kanchan T, Thapar R, Mithra P, et al. Awareness and attitude regarding prenatal sex determination, pre conception and pre-natal diagnostic techniques act among pregnant women in Southern India. J Clin Diagn Res. 2014;8(10):JC09-11.
23. Jha P, Kumar R, Vasa P, Dhingra N, Thiruchelvam D, Moineddin R. Low female[corrected]-to-male [corrected] sex ratio of children born in India: national survey of 1.1 million households. Lancet. 2006;367(9506):211-8.
24. Sahni M, Verma N, Narula D, Varghese RM, Sreenivass V, Puliyel JM. Missing girls in India: infanticide, foeticide or made-to-order pregnancy? Insights from hospital-based sex-ratio-at-birth over the last century. PLoS One. 2008;3(5):e2224.
25. Sharma BR, Gupta N, Relhan N. Misuse of prenatal diagnostic technology for sex-selected abortions and

its consequences in India. Public Health. 2007;121(11):854-60.
26. Ahmad N. Female feticide in India. Issues Law Med. 2010;26(1):13-29.
27. Abrejo FG, Shaikh BT, Rizvi N. "And they kill me, only because I am a girl"...a review of sex-selective abortions in South Asia. Eur J Contracept Reprod Heal Care Off J Eur Soc Contracept. 2009;14(1):10-6.
28. Garg S, Nath A. Female feticide in India: issues and concerns. J Postgrad Med. 2008;54(4):276-9.

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