

FEMALE FETICIDE IN THE VIEW OF FERTILE FEMALES – A STUDY AMONG SUBURBAN PREGNANT WOMEN OF GUJARAT, INDIA

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ABSTRACT

Background: Sex selective abortion and Female feticide are growing problems across the world, especially among third world countries like India. Level of awareness and views regarding preventing the same must also be considered among those who are pregnant, before expecting a social change 'favourable' to the 'girl child'.

Aims & Objective: To study the attitudes and awareness towards issues of female feticide among suburban pregnant women.

Materials and Methods: This cross sectional study was conducted on antenatal women of the community of Saijpur ward attending government antenatal clinics of the area. A sample of 200 pregnant women was interviewed using pre-tested Performa taking their consent. Institutional ethical consent was obtained beforehand and the data were analyzed.

Results: Out of all 31.5% and 14.5% preferred to have a male and female child, respectively as their current pregnancy outcome. Less than half (43.5%, n=87) of the respondents were aware about the term 'Female feticide' in local language. Most of them (n=183, 91.5%) were aware of the term 'Pre-natal sex determination' in their local language. None of the graduate respondents would have liked to go for abortion, had the fetus sex been determined beforehand.

Conclusion: Socio-demographic factors play a role in women's awareness for female feticide. Education forms a critical role for her attitudes towards 'female feticide'. Television and Health-care providers proved to be better sources for awareness generation than others did.

Key Words: Female Feticide; Prenatal Sex Determination; Sex Selective Abortion; Suburban Pregnant Women

Introduction

In many parts of Asia, the Middle East and North Africa, women and children are so undervalued and neglected, that sex ratio is strongly becoming male biased among such nations.^[1] Female infanticide- a deliberate killing of female newborn, had also been observed in countries of the 'third world' as well as some of the European nations in the past.^[2] Female gender discrimination is reported in areas of health care, nutrition, education, and resource allocation due to man-made norms, religious beliefs, and also through technologies like sonography machines, all of which have lead the families to choose a male sex to reproduce by and large.^[3] In India, it is said that about 50 million girls and women are missing from the expected figures, due to systematic gender discrimination.^[4] Recent reports suggest that adverse female sex ratio is widely seen among urban localities as well as some of the well to do states like Punjab and Haryana of the country.^[5] Studies have shown that there has been a strong desire for male child among married women even of urban slums of India.^[6] On the other hand, improvements in health facility have benefitted males more than females in terms of rescue from death,^[7] thereby lengthening male survival ahead and further worsening the gender balance in the country. Recent studies also suggest the males in countries like India, China

and South Korea are marginalised and withdrawn as a remote consequence of the female feticide.^[8] Correcting the imbalances in the sex ratio at birth has not been an easy task as complexity of factors play roles, especially when it comes to the Indian urban society.^[9] It would be important to know what the urban pregnant women themselves think about female feticide and to what extent they are aware to the steps imposed by various government agencies against it. Whereas in some parts, like in Northern India, girl constituted about 60% of the unwanted births,^[10] the views and attitudes of the pregnant woman herself must be considered for the desired behaviour change in the society.

Objective: To study the attitudes and awareness towards issues of female feticide among suburban pregnant women of communities in the field practice areas of a teaching medical institute.

Materials and Methods

A cross-sectional study was carried out in the service area of a tertiary care hospital of a reputed medical institute of Ahmedabad city of Gujarat. The study was carried out during January to June 2013. Pregnant ladies were included attending the Government Antenatal clinics (ANC) of the Saijpur ward of Ahmedabad city. Institutional

ethical clearance was obtained. A pregnant woman was defined as a woman having history of amenorrhea couples with positive urinary pregnancy test and/or sonography confirmed pregnancy or history of amenorrhea coupled with clinically confirmed pregnancy. The population of Saijpur field practice area is about 5000. Considering a pregnancy rate of 4.5%, calculated from the field register, the total number of pregnant women would come around 225. Faculties including a teaching staff (Assistant Professor), a Lady Medical Officer along with a female medical social worker did the data collection. A pre-designed questionnaire was pre-tested through a pilot study having 10 respondents, before initiation of the actual data collection. A total of 200 currently pregnant women were interviewed to cover most of the pregnant women in the area. The data collection lasted for about 4 months depending upon the availability of the newly registered pregnant women in the area. Informed consent was taken from the respondents and the data were analysed anonymously. The socio-economic variables, the awareness for various terms like 'female feticide', 'save the girl child', 'pre-natal sex determination' and 'women empowerment' (all of those terms made famous under governmental initiatives against sex selective abortions in the country) and the sources of knowledge about such terms were noted. The data were analyzed using SPSS (Statistical Package for Social Scientists) software and appropriate statistical tests (Chi-square and proportions) were applied.

Results

The mean age of the respondents was 25.83 (± 7.0) years. The study shows that the majority (183, 91.5%) of the respondents came from urban background while the rest (n=17, 8.5%) were from the rural counterpart. Most of the respondents (n=191, 95.5%) were Hindu by religion, the rest of them belonged to Muslim community. The study shows that exactly half (n=100, 50%) of the respondents had and minimum education of up to Secondary level (up to standard 12). It can be seen that a very few proportion (n=16, 8%) of the respondents was illiterate. Most (n=156, 78%) of the pregnant women were housewives. Regarding their spouse, again most of them had a good level of education with most of them (n=134, 67%) belonged to the secondary level of education and none of them was illiterate.

Regarding the obstetric history of the respondents, it was seen that majority of them were primigravida and third gravid (n=65 and 64 respectively) followed by second gravid (n=43, 21.5%) and fourth gravid (n=28, 14%). The

abortion rate in the present study was 34%. The study shows that, out of the total 200 respondents, majority of them (54%, n=108) did not show any preference for either sex for their pregnancy outcome. While 31.5% (n=63) showed preference for male child, only few (n=29, 14.5%) showed preference for a female child. The study shows that 20.5% (n=41) of the respondents had a son. While 19.5% (n=39) had a daughter. Similar proportions (n=42, 21%) had two daughters at the time of interview. All of them considered that one should not go for sex determination of the fetus. Majority (n=119, 59.5%) of the respondents considered 'God's will' as the only reason for not opting for sex determination. Followed by the reasons like 'it is a sin to disclose the sex' (n=60, 30%), 'the secret is a joy' (n=9, 4.5%), 'illegal' (n=8, 4%) and 'rituals do not permit us' (n=4, 2%).

Only about less than half (43.5%, n=87) of the respondents were aware about the term 'Female feticide' in local language. While the term 'Save the girl child' was known by almost two third (n=134, 67%) of the respondents, showing better awareness than the former term. Among the total 200 respondents, most of them (n=183, 91.5%) were aware of the term 'Pre-natal sex determination' in their local language. [Table 1]. Table 1 shows that the socio-demographic characteristics of the pregnant women had some associations related to their awareness related to the various terms made recently famous in the society by the Government, as a part of the actions taken against sex-selective abortion. It shows, while urban/rural background did not have any relation with their awareness (p=0.95), the religion did (p=0.04). It was seen that none of the Muslim respondent knew about either 'Female feticide' (p=0.007) or 'Women empowerment' (p=0.04) in local language. While on the other hand, surprisingly, all of the Muslim women heard about 'Save the girl child' (p=0.031) and 'Prenatal sex determination' (p=0.35). There were significant associations between the levels of education of the pregnant women and their awareness about all the other term except the term 'Female feticide' (p=0.105). Same was observed with the levels of education of their husbands as well, with the only exception this time for the term 'Prenatal sex determination'. (p=0.132)

Health care provider was the commonest source of information for both 'Female feticide' and 'Prenatal sex determination' (44.82% and 40.46%) respectively, while for 'Save the girl child', television (39.55%) was the commonest source of information. [Table 2]. Even among the respondents who were aware of the term, most of them (n=135, 73.8 %) knew that the test is punishable in our country. The term 'Women empowerment' in local

language, was heard by only 30% (n=60) of the respondents. The commonest source being Television (n=14, 46.66%) followed closely by newspaper (n=13, 43.37%). An assessment was also made regarding the knowledge about the possible consequences of female feticide. The most common consequences mentioned by the respondents were; 'Gender imbalance and family issues' (n=50, 25%), 'Gender imbalance only' (n=45, 22.5%), 'Family problems only' (n=36, 18%), 'Gender imbalance, No brides for marriage and Family problems' (n=25, 22.5%) and 'Gender imbalance and No brides for marriage' (n=20, 10%). The rest of the reasons did not form significant proportions. It was observed that, if having given a chance, only few (n=42, 21%) of the respondents would have gone for the abortion of the foetus, if it was found to be a female one. On asking the reason for not going for an abortion to the rest (n=158, 79%), majority of the respondents (n=92, 58.22%) thought it was immoral to do so, while other replies were 'equal rights for both gender' (n=41, 25.94%), 'illegal' (n=1, 0.63%) and no reason (n=24, 15.18%). It was interesting to note that almost all (n=185, 92.5%) of the respondents thought that male gender is preferred over the female counterpart in our country.

Table 3 shows the present attitudes of the currently pregnant females towards the female child. Overall there was a significant association between the level of education of the respondents and 'would have gone for abortion if the sex of the fetus is known' (p=0.001). There was a significant associations for 'would have gone for abortion if sex of the fetus is known' among for women having secondary school or graduate levels of education. (p=0.001). In fact, none of the graduate respondents would like to go for abortion, even if the sex was determined somehow. Similarly, there was a significant association between the educations levels and 'having thought for son current pregnancy' among the respondents (p=0.002). It was also seen that graduate women are significantly less likely to have such thought of having a son during the current pregnancy than others. (Only 8 out of 33 graduates, p=0.001). The level of education did not have significant overall association on their belief whether a girl should receive formal education (p=0.064). But, it was seen that women with secondary education were more likely to have such belief than others (93 out of 100, p=0.007). An analysis was also carried out for the female infanticide system prevalent in the past, and it was found that majority of the women (n=167, 83.5%) considered the system as 'Bad' one. Only few proportions considered it either 'Good' (n=21, 10.5%) or 'Very Good' (n=2, 1.0%). Minor proportions (n=10, 5.0%) did not choose any

particular view.

Table-1: Distribution of the Socio-demographic characteristics of the pregnant women, according to their awareness about various terms related to female feticide

| Variable | Category | N | Whether aware of the terms in local language | | | | | | | |
|---------------------|------------|-----|--|---------|---------------------|---------|----------------------------|---------|-------------------|---------|
| | | | Female Feticide | | Save the Girl Child | | Prenatal Sex Determination | | Women Empowerment | |
| | | | N | P value | N | P value | n | P value | N | P value |
| Back-ground | Urban | 183 | 78 | | 123 | | 169 | | 55 | |
| | Rural | 17 | 9 | 0.41 | 11 | 0.83 | 14 | 0.15 | 5 | 0.95 |
| Religion | Hindu | 191 | 87 | 0.007* | 125 | 0.031* | 174 | | 60 | 0.04* |
| | Muslim | 9 | 0 | | 9 | | 9 | 0.35 | 0 | |
| Education | Illiterate | 16 | 5 | | 7 | | 16 | | 5 | |
| | Primary | 51 | 16 | 0.105 | 26 | 0.00* | 34 | 0.00* | 1 | 0.00* |
| | Secondary | 100 | 49 | | 59 | | 77 | | 37 | |
| Husband's Education | Graduate | 33 | 17 | | 33 | | 33 | | 17 | |
| | Primary | 15 | 5 | | 5 | | 15 | | 0 | |
| | Secondary | 134 | 47 | 0.00* | 78 | 0.00* | 117 | 0.132 | 30 | 0.00* |
| | Graduate | 51 | 35 | | 51 | | 41 | | 30 | |
| | Total | 200 | | | | | | | | |

* Shows significance at 95% level. † Note: None of the husband of the respondents was illiterate.

Table-2: Distribution of various sources of information among the respondents, regarding terms related to female feticide practice

| Sources of Information for various terms, in local language | Female Feticide | | Save the Girl Child | | Prenatal Sex Determination | | Women Empowerment | |
|---|-----------------|-------|---------------------|-------|----------------------------|-------|-------------------|--------|
| | N | % | n | % | n | % | N | % |
| Friends/Relatives/ Neighbours | 6 | 6.89 | 15 | 11.19 | 45 | 24.59 | 0 | 0.00 |
| Health Care Provider | 39 | 44.82 | 37 | 27.64 | 74 | 40.46 | 0 | 0.00 |
| Television | 23 | 26.44 | 53 | 39.55 | 32 | 17.48 | 14 | 46.66 |
| Newspaper | 11 | 12.66 | 22 | 16.41 | 26 | 14.20 | 13 | 43.37 |
| Others* | 8 | 9.19 | 7 | 5.21 | 6 | 3.27 | 3 | 10.00 |
| Total | 87 | 100 | 134 | 100 | 183 | 100 | 30 | 100.00 |

* Others: Hospitals, Clinics, Street posters etc.

Table-3: Distribution showing attitudes of the respondents towards issues related to female child, according to their levels of education

| Levels of Education | Total | A | P | B | P | C | P |
|---------------------|------------|------------|--------|-----------|--------|------------|--------|
| | N (%) | N (%) | value | N (%) | Value | N (%) | value |
| Illiterate | 16 (8.0) | 5 (11.90) | 0.29 | 5 (5.0) | 0.117 | 16 (8.29) | 0.42 |
| Primary | 51 (26.5) | 7 (16.66) | 0.13 | 32 (32.0) | 0.03 | 51 (26.42) | 0.115 |
| Secondary | 100 (50.0) | 30 (71.42) | 0.001* | 55 (55.0) | 0.15 | 93 (48.18) | 0.007* |
| Graduate | 33 (16.5) | 0 (0.00) | 0.001* | 8 (8.0) | 0.001* | 33 (17.09) | 0.23 |
| Total | 200 (100) | 42 (100) | | 100 (100) | | 193 (100) | |

$\chi^2 = 16.29, df = 3, p = 0.001^*$; $\chi^2 = 15.32, df = 3, p = 0.002^*$; $\chi^2 = 7.25, df = 3, p = 0.064$

* Significance at the level of 95%. A: Would have gone for abortion if sex of the fetus was known; B: Has thought of having a son during the current pregnancy; C: Believes that a girl should receive formal education

Discussion

The mean age of 25.83 years (± 7.0) was quite comparable to the range found in a study by Kansal R. et al, which was 23.98 ± 7.0 years.^[11] The age is also an important factor, as a recent study has shown that women ageing 30-39 years had a higher prevalence of sex determination practices.^[9] The study showed there was no association between women's urban/rural origin and their awareness to various terms related to female feticide. The association of religion with the awareness may be due to the fact that Muslim women constituted only 4.5% (n=9) of the

respondents. The study shows that almost all (92%, n=184) of the respondents were literate. The levels of education is also to be explored here further because a recent study has shown an inverted U-shaped relationship between the levels of education of women and the sex ratio at birth.^[12] A study from Vadera showed that the proportions of illiterate, primary level and secondary level to be about 20%, 45% and 34% respectively^[13]; which was in our study was 8%, 25% and 50% respectively. The higher level of overall educational level may be due to the fact that the study was done among urban subpopulations (close to urban municipal schools), which was not the case for the study by Vadera. The study showed that the level of education of the women had significant association with their awareness to the terms like 'save the girl child' and 'prenatal sex determination.' Further, it could be explored that all the graduate women had that awareness for 'save the girl child' as well as 'prenatal sex determination'. Education of the husband is also an important thing to be considered due to the fact that certain studies have shown a close association between the woman's preferences for a particular sex and her husband's preferences (p=0.0001) as well as his education levels (p=0.0001).^[3] Nonetheless, studies have also shown as association between the unwanted births (one third of all) and the improper use of condoms as well as unwillingness by the husband.^[14] Here in the present study it was fortunate to have all the husbands of the respondents to be literate. The abortion rate in the present study was 34%, which is comparable to the abortion rate of the study by Tragler A where the rate was 27.81% (84 out of 302) among the urban slums of Mumbai city.^[15] This comparison was made to justify that the said abortions were 'natural' more or less..

In present study, 31.5 % of the respondents preferred a male child for the current pregnancy, while only 14.5% of the respondents preferred to have a female child. The study conducted by Dey et al showed that about 32.7% of the mothers desired more sons than daughters and only 3.8% desired more daughters than son.^[5] On the other hand, in a study conducted in Chandigarh slums, 57.8% of the women preferred male sex and only 14.4% of the women chose female sex as their pregnancy outcome.^[11] This reflects that not only the family members but also the mother itself has got something to do with the male sex preference in. In a study by Kansal R (study subjects dominated by rural background) et al, son and daughter preference were found to be 22.2% and 11.8% respectively.^[11] While in a study by Vadera B, the son preference was found to be 58.5%.^[13] The contrasting figures of those studies may be due to factors like urban/rural ratio among the respondents as well as the

number of living children at the time of interview. As the present study was conducted in suburban populations, it also counteracts the beliefs that son preference is only prevalent among higher social class people for example as mentioned in the study conducted by Gaudin S.^[16] A study conducted by Tragler A. also revealed son preference was also observed among the suburban slums of Mumbai city as well.^[15] In the present study, none of the respondents showed any willingness to go for sex determination, while in a study from Eastern India, 34.7% expressed that willingness.^[3] The proportions were about 18.61% when a study was conducted in Northern India.^[9] These differences may be due to the higher proportions of literacy among the respondents than the other two studies. Only about less than half (43.5%, n=87) of the respondents were aware about the term 'Female feticide' in local language; which was very similar to a study conducted in rural Uttar Pradesh state, where it came to 47.31%.^[17] Among the total 200 respondents, most of them (n=183, 91.5%) were aware of the term 'Pre-natal sex determination' in their local language, while in a study by Puri and co-workers, it was only 11.6%.^[6] A huge contrast was found from the study by Srivastav, where the awareness came up to be 80.13%.^[17] In the present study, among those who were aware of 'prenatal sex determination', most of them (n=135, 73.8 %) knew that the test is punishable in our country; while in Gosh's study, this proportion was 65.5%.^[9] There were significant associations between the levels of education of the pregnant women and their awareness about all the other term except the term 'Female feticide'. Same was observed with the levels of education of their husbands' education as well, with the only exception this time for the term 'Prenatal sex determination'. Here in the present study, the major consequences of female feticide, as perceived by the women had many similarities in common with the study done among antenatal women of Jamnagar, Gujarat; these are: 'no brides to marry', 'family problems' and 'social imbalance'.^[13] The major sources for 'female feticide' were TV and Care providers, while in the study in urban Ludhiana, Punjab were TV and Newspaper for the same term.^[18] In the present study, almost all (n=193, 96.5%) of the respondents of different levels of educations thought that a girl child should revive formal school education. This supports the findings by a study from Abrejo F G, who believes that a woman must be offered good educational and economic opportunities to address the issue of female feticide.^[19]

Conclusion

Son preference is seen more commonly than daughter

preference even among females themselves. Religion, woman's education and husband's education play roles for the woman's awareness for the terms related to sex selection issues. Terms like 'Pre-natal sex determination' and 'Save the girl child' were better heard than 'Female feticide'. Television and Health Care providers proved to be the two major sources for creating awareness against sex-selection issues. The pregnant women are aware that sex-selective abortion could lead to gender imbalance in the society with serious consequences; still the issue persists in practice. Free secondary school level education must be encouraged by the Government with help of the Non-governmental organizations. Adult learning should also be promoted; especially separate time arrangements should be made for the women during when they can learn from their busy household schedules. Health care providers at Antenatal Clinics should be trained to deliver hand-on knowledge related to the aspects of female feticide to their beneficiaries. Television and newspaper should highlight the fact-files of powerful and successful lady figures of the country, so that the family members could acquire the potentials of a girl child. The parents and the in-laws of the pregnant women should be counselled by the care providers at every possible junctures (i.e. during antenatal visits when they accompany the pregnant one) to educate them regarding inviting the girl child in their families.

Limitation of the study: The study cannot identify the views of those pregnant women who attend private clinics of the area.

References

- Brooks R. "Asia's missing women" as a problem in applied evolutionary psychology?. *Evol Psychol.* 2012;10 (5):910-25.
- Oberman M. A brief history of infanticide and the law. In: Spinelli MG, editor. *Infanticide: psychosocial and legal perspectives on mothers who kill.* Washington, DC: American Psychiatric Publishing Inc; 2003. pp. 3-18.
- Yasmin S, Mukherjee A, Manna N, Baur B, Datta M, Sau M, et al. Gender preference and awareness regarding sex determination among antenatal mothers attending a medical college of eastern India. *Scand J Public Health.* 2013;41(4):344-50.
- The State of World's Children 2007. The United Nations Children Fund 2008 (cited October 20, 2013). Available from URL: http://www.unicef.org/pfo/files/2007_State_of_the_Worlds_Childre_n.pdf
- Dey I, Chaudhuri RN. Gender Preference and its Implications on Reproductive Behavior of Mothers in a Rural Area of West Bengal. *Indian J Community Med.* 2009; 34(1): 65-67.
- Puri S, Bhatia V, Swami HM. Gender preference and awareness regarding sex determination among married women in slums of Chandigarh. *Indian J Community Med.* 2007;32:60-2
- Singh JP. Socio-cultural aspects of the high masculinity ratio in India. *J Asian Afr Stud.* 2010; 45(6):628-44.
- Hesketh T. Selecting sex: the effect of preferring sons. *Early Hum Dev.* 2011; 87(11):759-61.
- Ghosh R, Sharma AK. Missing female fetus: a micro level investigation of sex determination in a periurban area of Northern India. *Health Care Women Int.* 2012;33(11):1020-34.
- Bhat PN, Zavier AJ. Fertility decline and gender bias in northern India. *Demography.* 2003; 40(4):637-57.
- Kansal R, Maroof KA, Bansal R, Parashar P. A hospital based study on knowledge, attitude and practice of pregnant women on gender preferences, prenatal sex determination and female feticide. *Indian J of Public Health.* 2010;54(4)209-12.
- Echavarrri RA, Ezcurra R. Education and gender bias in the sex ratio at birth: evidence from India. *Demography.* 2010;47(1):249-68.
- Vadera BN, Joshi UK, Unadkat SV, Yadav BS, Yadav S. Study on knowledge, attitude and practice regarding gender preferences and female feticide among pregnant women. *Indian J Comm Med.* 2007; 32(4):300-01.
- Banerjee N, Sinha A, Kriplani A, Roy KK, Takkar D. Factors determining the occurrence of unwanted pregnancies. *Natl Med J India.* 2001; 14(4):211-4.
- Tragler A. A study on sex ratio at birth in suburban slums of Mumbai. *Indian J Public Health.* 2011; 55(2):128-31.
- Gaudin S. Son preference in Indian families: absolute versus relative wealth effects. *Demography.* 2011; 48(1):343-70.
- Srivastav S, Kariwal P, Kapilasrami MC. A community-based study on awareness and perception on gender discrimination and sex preference among married women (in reproductive age-group) in a rural population of district Bareilly, Uttar-Pradesh. *National Journal of Community Medicine.* 2011, 2(2): 273-276.
- Chaudhary A, Satija M, Sharma S, Singh GPI, Soni RK, Sachar RK. Awareness and perceptions of school children about female feticide in urban Ludhiana. *Indian J Community Med.* 2010;35(2):302-4.
- 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 Health Care.* 2009; 14(1):10-6.

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