

# Study on gender preference and awareness regarding prenatal sex determination among married women of reproductive age group in urban slums of Raipur city

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## ABSTRACT

**Background:** Gender preference, especially male, is a matter of serious concern in our country. It happens due to misuse of recent advancement in medical technology for prenatal sex determination. Therefore, awareness of these issues needs to be evaluated. **Objectives:** The present study is conducted to assess the knowledge regarding issues of sex determination and also to identify the real picture of gender preference among married women (reproductive age group) residing in urban slums. **Materials and Methods:** A community-based cross-sectional study using simple random sampling for the selection of slum and 230 urban slum dwellers married women in reproductive age group was interviewed. **Results:** It was found that 79% of women were aware of prenatal sex determination. Among them, 92.30% of women knew about ultrasonography technique for determining sex of the child. About 92.80% of women knew about criminal aspects of prenatal sex determination, but only 76.40% knew about the punishment associated with sex determination. The present study shows that there is no particular gender preference among the married women. About 70.80% have either sex preference in their next pregnancy, but 17.80% of women have preference for male child and 11.30% of women prefer female child. The present study also shows more male child preference among women having all female children in their previous births. **Conclusion:** There is a need for stronger implementation of existing legal measures such as Pre-conception and Pre-natal Diagnostic Techniques Act and also creating awareness of them is felt. Information Education and Communication (IEC) pertaining to these issues must be promoted.

**KEY WORDS:** Gender Preference; Prenatal Sex Determination; Urban Slums


## INTRODUCTION

The decline in India's sex ratio during the 20<sup>th</sup> century has been the subject of much discussion. Sex ratio is an important social indicator to measure the extent of prevailing equity between male and female in society among married women. It is also a sensitive indicator of development. Change in sex

ratio reflects underlying socioeconomic and cultural pattern of a society. A strong gender preference is seen in many societies even today.

Most of the factors that compel people to favor a male offspring are social in origin with average family size decreasing rapidly and preference for male child remaining the same. The female population is showing the downward trend. This is due to the advent of technologies such as ultrasonography, imaging to determine fetal sex, and practice of sex-selective abortion.<sup>[1,2]</sup>

In Chhattisgarh, sex ratio was 991 female to 1000 male according to the census 2011 taking lead to have a greater

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share.<sup>[3,4]</sup> Gender equality is a core development objective in its own right. Greater gender equality can enhance productivity, improves development and outcome for the next generation. Thus, the present study is conducted to identify the real picture of gender preference among married women residing in urban slums and to assess their knowledge regarding issues on sex determination.

## MATERIALS AND METHODS

A community-based cross-sectional observational study using multistage random sampling for the selection of slum and a sample size of 230 urban slum dwellers married women was selected using a response rate of 85%. The study tool was predesigned pretested questionnaires. In the first stage, five wards were selected by simple random (lottery) method, and then from each ward, one slum was selected randomly, so a total of five slums from five different wards were selected and finally Expanded Program on Immunization random walk method was applied for selecting 46 households from each slum to fulfill the sample size.

### Inclusion Criteria

Females under the reproductive age group of 15–49 years and females who are willing to be a part of survey with consent were included in the study.

### Exclusion Criteria

Females not falling under the required age group, females who are widow or divorce, and females who are unwilling to be a part of survey were excluded from the study.

### Statistical Analysis

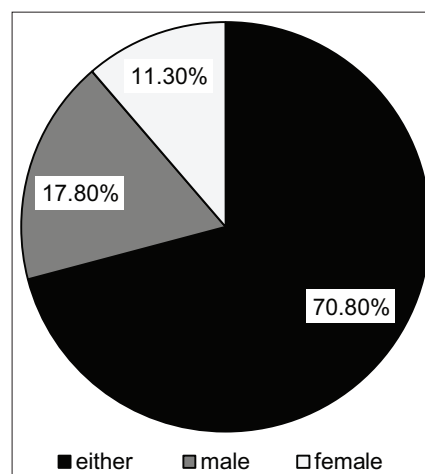
Collected data were entered into MS Windows Excel sheet in the form of codes and presented in the form of percentage, proportion, and graph. Chi-square test was used for evaluating statistical significance of the association between the independent and the dependent factors, for all the tests, two-sided  $P < 0.05$  was considered statistically significant.

## RESULTS

The study was conducted among 230 married women of reproductive age group from five urban slums of Raipur city, in which majority of 54% of women belong to 20–29 years of age group, 83.90% of women were Hindu by religion, and most of them, i.e., about 73.40% are from nuclear family and 68.60% were literate [Table 1]. It is evident from the present study that there is no particular gender preference among the married women. About 70.8% have either sex preference in their next pregnancy, but 17.8% of women have preference for male child and 11.3% of women prefer female child [Figure 1].

**Table 1:** Sociodemographic profile of married women

Characteristic	<i>n</i>	Percentage
Age (in years)		
15–19	4	1.7
20–29	125	54.3
30–39	80	34.7
40–49	21	9.1
Religion		
Hindu	193	83.9
Muslim	37	16.1
Type of family		
Nuclear	169	73.4
Joint	61	26.6
Education status		
Illiterate	72	31.3
Primary	70	30.4
Middle	69	30
High school	19	8.2
Parity		
Multigravida	192	83.5
Primigravida	38	16.5



**Figure 1:** Distribution of the study subject regarding gender preference ( $n = 230$ )

Women who have preference for male child mainly have the reason of “family support” 60.97% followed by “source of income” 21.95% [Table 2]. Male preference is comparatively more among primigravida and with the increase in education level preference for male child is decreasing [Table 3]. There is more male child preference 61.76% among women whose last child sex was female. The present study also shows more male child preference among women having all female children in their previous births [Table 4].

The study also reveals about prenatal sex determination aspects among the women of the slums. It was found that 79% of women were aware of prenatal sex determination among whom 54.9% of women stated media as their source

**Table 2:** Distribution of the study subject showing reason for male preference (*n*=41)

Reasons	<i>n</i>	Percentage
Dowry	2	4.87
Family support	25	60.97
Source of income	9	21.95
Girl child a burden	2	4.87
Family members	3	7.31
Others (funeral ceremony)	0	0
Total	41	100

**Table 3:** Distribution of women according to their education status and their choice for male preference (*n*=230)

Education level	Male preference (%)		Total
	Yes	No	
Illiterate	19 (26.38)	53 (73.62)	72
Primary school	15 (21.42)	5 (78.58)	70
Middle school	5 (7.20)	64 (92.80)	69
High school	2 (10.52)	17 (89.48)	19
Total	41 (17.82)	189 (82.18)	230

$\chi^2=10.14$ , *df*=3, *P*<0.05; significant

**Table 4:** Distribution of women for son preference according to the type of sex composition in previous birth (*n*=41)

Type of sex composition (previous birth)	<i>n</i>	Percentage
All females	10	24.39
All males	4	9.75
Male=female	9	21.95
Male>female	5	12.19
Male<female	6	14.63
No child	7	17.07

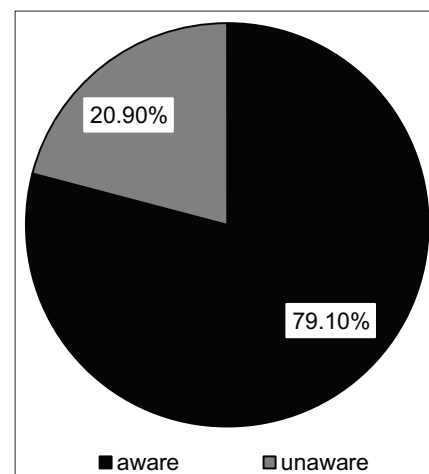
of information followed by neighbors (23.10%) [Figure 2]. Among them, 92.30% of women knew about ultrasonography (USG) technique for determining sex of the child [Table 5]. About 92.80% of women knew about criminal aspects of prenatal sex determination, but only 76.40% knew about the punishment associated with sex determination. About 54.60% of women did not know about the implications of sex determination on female feticide.

**DISCUSSION**

The present study was done among slum dwellers married women and also to assess their knowledge regarding issues pertaining to sex determination. Out of 230 women were interviewed, most of the women prefer either sex in subsequent pregnancy and 11.3% of women prefer female child. This real picture gives evidence of high sex ratio in Chhattisgarh. However, 17.8% of women still had a male

**Table 5:** Distribution of the study subject regarding awareness of the facts related to prenatal sex determination (*n*=183)

Awareness	Number of women	Percentage
About technique		
Ultrasonography	168	92.3
Do not know	15	7.7
About criminal aspects		
Aware	171	92.8
Not aware	12	7.2
About punishment		
Aware	44	23.6
Not aware	139	76.4
Implication of female feticide		
Aware	84	45.6
Not aware	99	54.4



**Figure 2:** Distribution of women according to the awareness of prenatal sex determination (*n* = 230)

child preference in the study. The present study also reveals 79% awareness of prenatal sex determination among married women.

It was found the desire for son was more among women who were already having all girl children as compared to those who were having boy child and the desire for son was becoming stronger as the number of girl child increases. Similar results were obtained by Puri *et al.*<sup>[1]</sup> and Bedre and Solanki.<sup>[5]</sup> The major reason for son preference were family support and economic productivity. This reason was also stated by studies.<sup>[5,6]</sup> Majority of 92.8% were familiar with USG as a technique used for sex determination. Another hospital-based study found that 95% of antenatal women were aware of the availability of a method for intrauterine sex determination.<sup>[7]</sup> Awareness of sex determination as a crime was given by majority of 92.8% of women which is in contrast with the finding in a study in Maharashtra in which nearly half of study population 430 (51.19%) were aware that sex determination as crime.<sup>[8]</sup> However, only 23.6% of

women knew about the exact legal punishment. The finding was supported by Ghose and Sarkar,<sup>[7]</sup> in which only 16% of respondents study knew about punishment. Another study on declining sex ratio in selected districts of Punjab and Haryana found that all the respondents were aware of USG as a method of prenatal sex determination.<sup>[9]</sup> Majority of the women 62.8% did not know about the places where sex determination techniques were done, similar finding was stated in Uttar Pradesh study,<sup>[10]</sup> where only 24.3% of couples were aware of a place where sex determination test was done. The present study also revealed only 45.6% were aware of the adverse effects of female feticide on the society, in contrast to the study in Uttar Pradesh,<sup>[10]</sup> in which 79.6% of respondents were aware of the adverse effects of female feticide on the society.

### Limitation of Study

Our study was done among women of urban slums only, so further exploration based on socioeconomic and cultural dimensions is needed.

### CONCLUSION

The present study shows that most of the women prefer either sex in the subsequent birth, this proves a high sex ratio in Chhattisgarh state. However, few women still prefer male child for many reasons. Children should be considered god gift regardless of their gender. Therefore, the need for stronger implementation of existing legal measures like Pre-conception and Pre-natal Diagnostic Techniques Act is felt. There is also a scope of improvement in terms of knowledge of declining sex ratio and adverse effects of female feticide. IEC pertaining to these issues must be promoted.

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