

## RESEARCH ARTICLE

## KNOWLEDGE AND ATTITUDE OF UNDERGRADUATE MEDICAL STUDENTS REGARDING DECLINING SEX RATIO IN INDIA

Rekha Dutt\*, Dipak Patil

1. Dr Dutt Rekha, Professor and Head, Department of Community Medicine, ESIC Medical College Joka, Kolkata.

2. Dr Patil Dipak, Ex. Assistant Professor , Department of Community Medicine, Padmashree Dr D Y Patil Medical College, Nerul , Navi Mumbai.

Corresponding author: Dr Dutt Rekha,

## ABSTRACT

**Context:** The most alarming and disturbing aspect of census 2011 report is sharp fall in sex ratio of children (0-6 years) from 945 in 1991 and 927 in 2001 to 914 in 2011..There is enough evidence from the field that practice of female foeticide is the leading cause of skewed sex ratio in our country .To curb this menace of female foeticide, it is imperative to assess the knowledge and attitude of future doctors about the causes and consequences of declining sex ratio. **Aims:** To know the knowledge and attitude of medical students on declining sex ratio.**Settings and Design:** A cross sectional, observational study. **Methods and Material:** Participants: 100 undergraduate medical students in 6<sup>th</sup> and 7<sup>th</sup> semester. Study Area: Classroom of Dr D Y Patil Medical College, Nerul, Navi Mumbai. **Statistical analysis:** proportions. **Results:** Our study underscores the knowledge and attitude of tomorrows doctors on skewed sex ratio in our country .Female participants had better knowledge on this issue in comparison to their male counterparts. Our study emphasizes the need to provide awareness to MBBS students regarding causes and consequences of declining sex ratio and also inculcate the ethics of medical profession at this starting point of their career.

**Key-words:** Sex Ratio, Female foeticide, Knowledge, Attitude, Medical Students.

## INTRODUCTION

One of the most disturbing features of demography is adverse sex ratio of female children as revealed through census 2001. Though the overall proportion of 0- 6 years children has been declining in India, a favorable trend indeed to attribute to the success of the Family Welfare Programme, however the alarming aspect of census 2011 report is sharp fall in sex ratio among children (0-6 years) or juvenile sex ratio (JSR) from 945 in 1991 and 927 in 2001 to 914 in 2011, a significant decline of 13 points. This result has been described as ‘matter of great concern’ by Census Commissioner of India, C Chandramauli.<sup>1</sup> The normal girls to boys ratio should be 952/1000. <sup>2</sup> While many countries have slight imbalance in their JSR for biological reason such as biological tendency of more male than female babies to be born to compensate for higher risk of mortality among new borne boys – the imbalance in India is acute and reflects three major behavioral factors. First, the imbalanced ratio is indicative of prenatal sex selection, whereby the parents choose to abort female fetuses. Second, JSR also reflects high child mortality among females. Some of it may be attributable to infanticide or parental neglect of female children in

terms of food and health care. Finally, an imbalanced JSR can also arise when parents use contraceptives differentially depending upon the sex of their existing children, such as using contraceptives only after having a son.<sup>3</sup>

Most of those in medical profession, being part of same gender biased society have same attitude concerning females. It is surprising that they are happy to fulfill the demands of prospective parents by misusing the modern technology. If the doctors are willing to fight against this evil, the problem could be easily curbed.

#### **METHOD:**

This study was conducted to assess the perspectives of tomorrow's doctors on the issue of skewed sex ratio in India. Study participants included in 100 MBBS students in their 6<sup>th</sup> and 7<sup>th</sup> semester, who were posted in the department of Community Medicine of Padamshree Dr. D Y Patil Medical College, Navi Mumbai. They were asked to fill the predesigned and pretested questionnaire that had multiple choice questions about causes, consequences of skewed sex ratio and measures to improve this problem. The data was analyzed using SPSS 16 Version by means comparison between proportions.

#### **RESULTS AND DISCUSSION:**

Out of 100 medical students, 55% were females and 45% were males. The mean age of students was 20.74 years. Table 1 shows students knowledge and attitude regarding reasons, consequences and measures to improve the declining sex ratio.

Majority (61%) of the respondents of our study cited female foeticide as the major reason of declining sex ratio in our country. This shameful practice is so deep rooted in our culture that a study carried out in Punjab depicted that 41% of population accepted it to be favourable for the families.<sup>4</sup> Fifty percent and 40% subjects were in view that son preference in the families and high female morbidity due to gender discrimination respectively are the reasons for less girls. A very low percentage of students were aware of the ways by which the female child is discriminated. This ignorance may be attributed to the fact that these students are from educated upper class families and may be not aware of gender biased scenario of rural area. However 66% were of the view that females get less opportunity for education.

Forty one percent respondents cited dowry system as the main reason for elimination of female foetuses. In another study 79% of the subjects cited dowry as the reason for same. They argued that first you raise daughters and then spend Rs 15 lakh on her wedding. The greater the number of daughters, more the economic burden on the parents.<sup>4</sup>

Majority of students (69%) were of the view that people kill female foetus or infants because they think daughters do not provide social security to parents in old age, which is consistent with other study done in Punjab where same percentage of subjects considered girls as second class citizens as they do not provide social securities to parents and are an unnecessary investment.<sup>5</sup>

69% of subjects stated that under the pressure of society, this practice of female foeticide is done. Thirty seven percent of students cited elders of the family enforcing the practice, which is similar to the percentage (32%) of subjects who cited elders of family responsible for this evil practice.<sup>4</sup>

More than half subjects (58%) were found to be aware that worst sex ratio is in Northern states of India. These days entertainment world is playing an important medium to impart awareness to general population on innumerable aspects. A lot of television serials are being made as this burning issue, depicting cultural and social background of the characters, there by spreading knowledge of this existing practice in our respective states.

Prenatal sex detection and subsequent termination of pregnancies if foetus is female, happens with the consent of mother, family and the doctor. If we want to contain this practice, stringent punishment should be given to the involved parties. Sixty eight percent of subjects were of the view that stricter punishment should be given to the families seeking abortions which is in consistence with another study where 56% of MBBS students and interns were of same view.<sup>5</sup> A very few students of present study i.e. 13% were in favour of giving stricter punishment to doctors performing illegal abortions and similar response (15%) was observed in MBBS students of New Delhi.<sup>5</sup> This response can be justified by the fact that medical undergraduates have yet to be exposed to medical ethics.

The decline in number of females can have serious repercussions for the future. Majority 59% of the respondents thought that this is the cause of increase in sexual crime rate which is similar to the observation made by other studies where 64% of MBBS students had same views<sup>5</sup> and 37% of the respondents felt that decline in female children would lead to degradation of moral values i. e. increased rate of rape, violence against women, immorality, prostitution and polyandry.<sup>4</sup>

In response to suggestions for dealing with the problem of declining sex ratio, 69% cited improving the literacy rate, which is consistent with the observation made by other study where 74% of subjects accentuated the role of female education<sup>4</sup>. There is no doubt that with education, awareness and receptivity improves on all aspects and one surpasses the false prejudices. The state of Kerala is the best example of this, which has highest sex ratio (1084/1000) in our nation.<sup>2</sup> Most of the students also wanted that strict laws should be enforced against female foeticides and against dowry.

In present study we observed girl students to be possessing better knowledge and attitude as this issue than boys. This can be attributed to the fact that educated girls better empathise with this issue and feel the need to raise women's status in the society.

**Table – 1 Knowledge attitude of students regarding causes, consequences and suggestions to improve sex ratio.**

	Female N=55	Male N=45	Total N=100
<b>1) Causes of declining sex ratio in India</b>			
a) Natural	2 (3.6)	2 (4.4)	4
b) Son Preference	30(54.5)	20(44.4)	50
c) Female Feticides	37(67.3)	24(53.3)	61
d) Female Mortality (Gender discrimination)	24(43.6)	16(35.6)	40
<b>2) Ways of Female child Discrimination</b>			
a) Deprived of Nutrition **	11(20.0)	7(15.6)	18
b) Deprived of Medical Care	13(23.6)	9(20.0)	22

c) Deprived of Education	37(67.3)	29(64.4)	66
d) Deprived of Love & Respect	22(40.0)	10(22.2)	32
e) More Domestic Responsibilities	29(52.7)	19(42.2)	48

**3) Reasons for Female foeticide**

a) Dowry System	19(34.5)	22(48.9)	41
b) Unnecessary investment (Daughters)	10(18.2)	14(31.1)	24
c) No social security to parents in old age	41(74.5)	28(62.2)	69
d) Disrespect for Family (Daughters)	9(16.4)	3(6.7)	12

**4) Responsible for female foeticide/infanticide**

a) Society	37(67.3)	32(71.1)	69
b) Father	6(10.9)	10(22.2)	16
c) Mother	2(3.6)	2(4.4)	4
d) Elders of Family	24(43.6)	13(28.9)	37

**5) Region with worst Sex Ratio**

a) East	7(12.7)	7(15.6)	14
b) West	11(20.0)	17(37.8)	28
c) North **	39(70.9)	19(42.2)	58
d) South	5(9.1)	3(6.7)	8

**6) Consequences of Declining Sex Ratio**

a) Polyandry	7(12.7)	6(13.3)	13
b) Increase Sexual Crime Rate	37(67.3)	22(48.9)	59

c) Increase STD & HIV	10(18.2)	15(33.3)	25
d) Increase Prostitution	8(14.5)	6(13.3)	14
e) More Male Homosexuals	7(12.7)	6(13.3)	13

**7) Who Deserved Maximum Punishment**

a) Doctors Doing Sex Determination	22(40.0)	21(46.7)	43
b) Doctors Doing Illegal Abortion **	11(20.0)	2(4.4)	13
c) Women Seeking Abortion	13(23.6)	13(28.9)	26
d) Family Seeking Abortion	41(74.5)	27(60.0)	68

**8) Improvement of Sex Ratio By**

a) Improving Literacy Rate **	24(43.6)	33(73.3)	69
b) Raising Women's Status	24(43.6)	13(28.9)	37
c) Support Cause of Girl Child	19(34.5)	12(26.7)	31
d) Strict Laws against Female Feticides **	28(50.9)	12(26.7)	40
e) Strict Laws against Dowry	27(49.1)	15(33.3)	42
f) Share in property for Girls	10(18.2)	10(22.2)	20
g) Religious leaders to Promote Gender Equity	10(18.2)	7(15.6)	17

\*\* p Value < 0.05 , numbers in parenthesis indicate percentages

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**CONCLUSIONS:**

The findings of our study strongly recommend inculcating ethical code of conduct among medical undergraduates by means of training or incorporating this topic in curriculum and sensitize them enough, so tomorrow they do not get involved in inappropriate and indiscriminate use of technology.

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