

# Knowledge Regarding Sex- Ratio and PCPNDT Act – A Cross Sectional Study



## Medical Science

**KEYWORDS :** Sex ratio, PCPNDT act, Sex determination

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### ABSTRACT

*Declining sex ratio is an issue of grave concern in India. The main objective of study is to assess the knowledge regarding adverse sex ratio and PCPNDT Act. A cross sectional study was carried out through house to house visit on 500 randomly selected people of 18-49 years age group of urban and rural field practice areas of C.U. Shah Medical College. 58 % were aware about adverse sex ratio. 46% has replied female foeticide as major cause for adverse sex ratio. 76% were aware about PCPNDT Act. The study concluded that people are aware about causes and effects of adverse sex ratio, but still they are doing prenatal sex determination. Along with education there is a need to change in attitude towards gender equality and recommendations under PCPNDT act to improve declining sex ratio.*

### Introduction:

Sex ratio, an important social indicator measuring extent of prevailing equity between males and females in a society, is defined as number of females per 1000 males. Changes in sex ratio reflect underlying socioeconomic and cultural patterns of a society<sup>1</sup>. The overall sex ratio in India has increased to 940 as per 2011 census against 933 as given by 2001 census. However, the area of grave concern is that the child sex ratio plummeted to 914 from 927 in 2001<sup>2</sup>. The female foeticide in 1997 is estimated by different experts and the figures vary from a low of 106 thousand to half a million<sup>3,4</sup>. The worsening of the country's hugely skewed sex ratio is largely due to misuse of prenatal diagnostic techniques despite stringent laws banning their use for sex selection and consequent increase in cases of female foeticide<sup>5</sup>.

As per census 2011, the sex ratio in Gujarat is 918 which is below national average of 940 and the age 0-6 sex ratio is 886 which is also below national average of 914. This decline is alarming<sup>6</sup>. The means to show better off in respect to sex ratio is only through improving the child sex ratio in the next few years, so it will again reflect in future censuses in terms of better overall sex ratio. In spite of this, if the child sex ratio still remains low in next census, we have to bear its effects until the middle of 21<sup>st</sup> century as it is definitely going to reflect in long term. The only means to get satisfaction in the next census in terms of sex ratio is the intensive measures directed to improve the child (0-6) sex ratio<sup>7</sup>. A concerted effort by the medical fraternity, political leaders, NGOs, media, teachers, and the community itself are essential against this social evil. So if the community people are willing to fight against this emerging concern, the problem could easily be curbed. To sensitize them about the ethics related to the inappropriate and indiscriminate use of technology is the need of the hours. Hence, the present study was conducted to assess the knowledge about sex ratio and PCPNDT act amongst urban and rural field practice areas of C.U.Shah Medical College, Surendranagar district, Gujarat.

### METHODS:

A cross sectional study was carried out between Oct-2010 to Dec-2010. 10% of total population in age group 18-49 years listed under UHTC and RHTC field practice area was selected as study population. Total sample size came to nearly 500 study population. The study sample included all members in a family between 18-49 years. House to house survey was carried out and data was collected using pre designed and pre tested questionnaire after taking informed verbal consent .

### Results:

From the total population, majority were in age group 20-24 years ( urban-17.9%, rural 23.7%) and female respondents(urban- 58.2%, rural-55.6%) were high compared to males. Table 1 show that nearly 58% of total population was aware about adverse sex ratio. Considering urban and rural distribution, 77.8% of urban and 49.1% of rural population were aware about adverse sex ratio. This difference was statistically significant (p<0.001).

**Table-1: Awareness regarding adverse sex ratio among study population**

Area of study population	Awareness regarding adverse sex ratio	
	Aware (%)	Not Aware (%)
Urban population	123(77.8)	35(22.2)
Rural population	168(49.1)	174(50.9)
$\chi^2 = 36.65$ $df = 1$ $p < 0.001$		

**Table -2: Education and awareness regarding adverse sex ratio .**

Education	Awareness on adverse sex ratio		
	Aware (%)	Not aware (%)	Total (%)
Illiterate	20 (37.7)	33(62.3)	53
Literate	07 (53.8)	06(46.2)	13
Primary	76 (49.7)	77(50.3)	153
Secondary	122 (59.8)	82(40.2)	204
Graduate & above	66 (85.7)	11(14.3)	77
Total	291 (58.2)	209(41.8)	500
$\chi^2 = 37$ $df = 4$ $p < 0.001$			

Table 2 show that awareness regarding adverse sex ratio increased with increase in education and the difference is statistically significant.

**Figure: 1 Causes of adverse sex ratio**

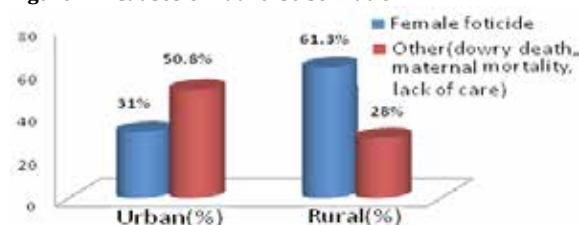


Figure 1 shows that majority were replied that female foeticide was the main cause for adverse sex ratio followed by dowry death, maternal mortality, and lack of care towards females.

**Table-3: Long term consequences of adverse sex ratio**

Consequences of adverse sex ratio	Urban(N = 158)	Rural(N = 342)
No response	11 (7%)	77 (22.5%)
Lack of bride	121 (76.5%)	253 (73.9%)
Increase sexual crime	36 (22.2%)	56 (16.3%)
Polyandry	32 (20.2%)	04 (1.1%)
Inter caste marriage	4 (2.5%)	17 (5%)

It was clearly seen from Table 3, majority were perceived that "lack of bride" as major long term consequences of adverse sex ratio followed by increase sexual crime.

**Figure 2: History of abortion among married female**

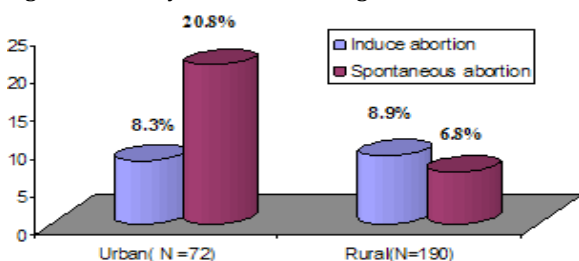


Figure 2 shows that out of total married women, 8.3% of urban and 9% of rural women had given the history of induced abortion. Among total married women, 61% were aware about adverse sex ratio and 82.6% were aware about PCPNDT act.

**Table- 4: Reasons for induced abortion among married women**

Reason for induced abortion	Urban(%)	Rural(%)
Don't want the baby	01(16.7)	14(82.3)
Abnormal growth of foetus	05(83.3)	00(0.0)
Having girl baby	00(0.0)	03(17.7)
Total	06(100.0)	17(100.0)

As shown in Table 4, main reason for induced abortion was "Abnormal growth of foetus" among urban and " Don't want the baby" among rural women. Surprisingly, 17.7% of rural women truthfully gave the history of female foeticide.

**Figure 3 : Awareness regarding sex determination methods**



Figure 3 shows that 86% of study population were aware about various sex determination methods and 90% were aware that prenatal sex determination was illegal.

**Figure 4: Sources of awareness regarding sex determination methods**

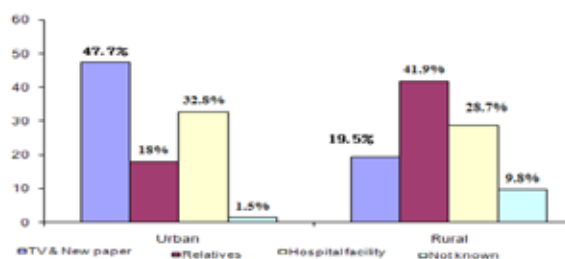


Figure 4 depicts that major sources of information were TV and new paper followed by relatives and hospital facility.

76% of study population were aware about PCPNDT Act, among them 96.7% of urban and 78.6% of rural population replied that prenatal sex determination is a punishable offence.

**Figure 5: Awareness about type of punishment under the PNDT act**

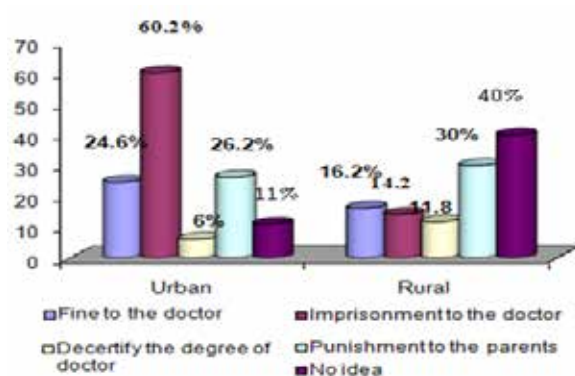


Figure 5 depicts about awareness regarding types of punishment under PCPNDT act. Those who were aware about PCPNDT Act, 11% of urban and 40% of rural population were not aware about the type punishment under the Act.

**DISCUSSION:**

The present study showed that the overall awareness regarding adverse sex ratio was 58 % which is comparably lower than the data of NIPCCD<sup>9</sup> and Shashi et al 's study <sup>8</sup> while higher than Ghosh et al 's study <sup>10</sup>. Present study showed that female foeticide, dowry death, maternal mortality and lack of care towards females were major causes for adverse sex ratio. Similar findings were reported by Ghosh et al's study<sup>10</sup>. However Mathur et al found that the practice of female infanticide, female foeticide and strong son preference were the factors contributing to imbalance in sex ratio in Rajasthan which is also indicative of the lower status of the girl child<sup>11</sup>. Varghese et al revealed that there was a definite relationship between sex of a child at birth and birth order with sex ratio at birth<sup>12</sup>. The present study showed the long term consequences of adverse sex ratio were lack of brides, increased sexual crimes, polyandry and increase number of intercaste marriages. Similar findings were reported by others also<sup>8,9,10</sup>.

Surprisingly, 13% of those who had gone for induced abortion confessed that they did female foeticide. This finding was vary with different studies<sup>16,17</sup>. The present study showed that 86% were aware about various sex determination methods which was vary in different studies<sup>14, 15,18</sup>. The present study observed that majority (90%) knew about the fact that prenatal sex determination is illegal which is comparably high

as shown by Khandelwal et al's study<sup>13</sup>. The present study showed that 76% of study population were aware about PCPNDT Act which was lower in other studies<sup>15,16,18</sup>. The present study showed that 67% were knew about the punishment under the PCPNDT act which was almost similar to Khandelwal et al's study<sup>13</sup> while lower in Siddharam et al's study<sup>18</sup>.

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