

Original Research Article

The state with lowest sex ratio in India: role of socio – cultural factors?

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ABSTRACT

Background: Child sex ratio is declining rapidly from 945 in census 2001 to 927 in census 2011. With the average family size decreasing rapidly and preference for male child remaining the same, the female child population is showing a downward trend. Objectives: To study the factors responsible for low child sex ratio and to study the relationship between sex ratio and birth order.

Methods: The study was done in Primary health centre, Khanpur Kalan which is rural field practice area attached to the department of community medicine, BPS Govt. Medical College for women, Khanpur Kalan, Sonapat, Haryana. Assuming the probability of being born as female is 50%, the calculated sample size was taken as 400 at 95% confidence interval. Data was collected from house to house visit with the help of pre tested and semi structured questionnaire.

Results: The overall child sex ratio of the study population was 620. Sex ratio goes on decreasing with increasing educational status of parents and with increasing birth order. Most common factor responsible for girl child negligence as told by respondents is domestic violence and ill treatment by husband and in laws. The most common reason for male child preference as told by the respondent is to run the family name, followed by security in old age and to perform the last rites.

Conclusions: There should be National Policy for giving social security and equal rights to females so that parents do not feel any type of social or financial insecurity. Monitoring and counselling of families especially the families with previous two girls should be done at the community level.

Keywords: Gender, Sex ratio

INTRODUCTION

According to the World Health Organization (WHO) "sex refers to the biological and physiological characteristics that define men and women" and that "male' and 'female' are sex categories" while, Gender' refers to the socially constructed roles, behaviours, activities, and attributes that a given society considers appropriate for men and women" and that 'masculine' and 'feminine' are gender categories. Gender inequality refers to unequal treatment

or perceptions of individuals based on their gender. It arises from differences in socially constructed gender roles. Sex ratio is defined as no. of females per 1000 males. As per 2011 census, the sex ratio of India is 940 females/1000 males, while sex ratio of Haryana is 877 females/1000 males, which is lowest amongst all state of India. Child sex ratio is declining rapidly from 945 in census 2001 to 927 in census 2011.¹ Girl child negligence resulting in early death, female infanticide, antenatal sex determination and female feticide; all factors are responsible for this.² With the average family

size decreasing rapidly and preference for male child remaining the same, the female population is showing a downward trend.³ The two child norm has worsened the situation, In Haryana, most of the families want both their children as boys and will keep aborting the girl child till such time as they have two boys.⁴ Situation becomes unfavourable for female when birth order is more than one and previous child is female. Sex ratio at birth in families with previous girls is worse than those with previous boy. The need of the hour is to maintain a healthy child sex ratio especially in north Indian states. This issue need to be addressed urgently especially in our state, which has the lowest sex ratio amongst the country. This study is designed to determine the factors responsible for low child sex ratio, relation between sex of the previous child with the present birth order and the possible role of prenatal sex determination in adverse sex ratio. The result of the study can help the authorities for counselling the families as there is a need to bring about change in attitude and mind set of society to draw their attention to the lurking danger of skewed sex ratio.

Objectives

- To study the factors responsible for low child sex ratio
- To study the relationship between sex ratio and birth

METHODS

Study design

It is a community based cross sectional study

Study setting

The study was done in Primary health centre, Khanpur Kalan which is rural field practice area attached to the department of community medicine, BPS Govt. Medical College for women, Khanpur Kalan, Sonapat, Haryana. From the Primary Health Centre, two sub centres were chosen randomly from two different villages and lists of interviewing houses were taken from the respective sub-centre.

Study population

Only those houses were selected, who have children between the age group of 0-6 yrs, mother of the children were interviewed to collect the data.

Sample size

Assuming the probability of being born as female is 50%, the calculated sample size was taken as 400 at 95% confidence interval and the calculated sample was collected from two sub centres under Primary Health Centre Khanpur Kalan.

Ethical Consideration: ethic approval was taken by I.E.C. (institution ethic committee) BPS Government Medical College for women, Khanpur Kalan, Sonapat.

Sampling technique

Simple random sampling by lottery method.

Inclusion criteria

Women having children of age group 0-6 yrs.

Exclusion criteria

- Women having children of age greater than 6 yrs or those having no children.
- Women who denied giving consent.
- Women having severe illness or mentally challenged

Data collection

Data was collected with the help of pre tested and semi structured questionnaire. Information regarding socio demographic profile, antenatal status and its outcome, sex of children, stillbirths, abortion, contraceptives use, reasons for preference of male child etc. was collected after taking informed consent.

Statistical analysis

Collected data was entered in Microsoft excel spreadsheet and analyzed by applying appropriate statistical tests.

RESULTS

A total of the 400 houses were visited from two different villages and the collected sample was analysed. The sex ratio was calculated as number of females per one thousand males. The overall child sex ratio of the study population was 620.

Sex ratio was lowest among the mothers of 20-25 years of age, which is the most fertile age group. As the age of the mother is increased the sex ratio also increased. Sex ratio was low among Hindu community as compared to Muslim community. When we study the relationship between caste and sex ratio, then we found that sex ratio was lowest in scheduled caste followed by backward class and it was highest among general caste. Sex ratio was slightly higher among nuclear type of families as compared to joint type of family (Table 1).

Table 2 shows that sex ratio goes on decreasing with increasing educational status of parents except in post graduate. It was lowest among graduates and was highest in parents who were literate upto primary.

Sex ratio goes on decreasing with increasing birth order; it was highest at the birth of first child followed by second and so on (Table 3).

Table I: Socio-demographic factors and child sex ratio.

Age of mother (years)	Sex of children		Child sex ratio	Odds ratio
	Female	Male		
<20	10	16	625	0.78
20-25	141	288	526	1
25-30	105	133	790	0.62
>30	5	4	1250	0.39
Religion				
Hindu	254	414	614	0.61
Muslim	7	7	1000	1
Caste				
General caste	182	282	645	1.02
Backward class	32	51	627	1
Scheduled caste	47	88	534	0.85
Type of family				
Nuclear	19	30	633	1.02
Joint	242	391	619	1

Table 2: Relationship between education of parents and child sex ratio.

Education of parents	Sex of children		Child sex ratio	Odds ratio
	Female	Male		
Mother's education				
Illiterate	35	46	760	0.95
Primary	60	75	800	1
Middle	97	165	589	0.73
High	48	93	516	0.64
Graduate	16	33	485	0.60
Post graduate	5	9	555	0.69
Father's education				
Illiterate	30	50	600	0.77
Primary	24	31	774	1
Middle	73	98	745	0.96
High	112	204	549	0.70
Graduate	14	27	518	0.66
Post graduate	8	11	727	0.93

Table 3: Relationship between child sex ratio and birth order.

Birth order	Sex of children		Child Sex ratio	Odds ratio
	Female	Male		
First	180	220	819	1.2
Second	93	144	646	1
Third and above	22	48	459	0.70

Most common factor responsible for girl child negligence as told by respondents is domestic violence and ill treatment by husband and in laws. Other factors included

were; the safety issues related to girls, dowry and parent's care after marriage etc. (Table 4).

Table 4: Reasons for girl child negligence.

Reasons	Frequency	Percentage
Domestic violence and ill treatment by husband and in laws	304	76.0
Lack of safety for girls and fear of harm to family honour	230	57.5
To give dowry at time of marriage	152	38.0
Lack of availability of girls to look after parents after marriage	24	6.0
Cannot become a source of income for family	16	4.0

The most common reason for male child preference as told by the respondent is to run the family name, followed by security in old age and to perform the last rites (Table 5).

Table 5: Reasons for male child preference.

Reasons	Frequency	Percentage
To run the family name	400	100
Security in old age	87	21.75
To perform the last rites	4	1.0

DISCUSSION

Various studies till now on this topic have shown that sex ratio is being manipulated by couples according to their needs, gender preferences and perceptions. This consequence has resulted into a daughter deficient world, resulting into lack of brides especially in north Indian states. Thousands of young boys are desperate to get married, but there are no brides available.⁴ When there is a shortage of women in the marriage market the women can marry up inevitably leaving the least desirable men with no marriage prospects.⁵ It is a consistent finding across culture that an overwhelming percentage of violent crime is perpetrated by young unmarried low status males, this fact shows the urgent need to save the girl child and to stop this vicious circle.⁶

In the present study, sex ratios at birth did vary significantly by religion, Muslims showed a relatively favorable female child sex ratio as compared to Hindus. Sex ratio is worst among young aged women and goes on increasing with increasing age. The role of education in improving sex ratios is dubious. Mothers who had a higher educational status had more gender preferences. Education and higher per capita income has actually empowered couples to access newer technology to practice sex-selective feticide. Abortions are done with

the help of sex selection techniques which help the parents get rid of unwanted daughters. The findings of our study are consistent with the study done by Toppo M et al.⁷

The overall sex ratio depicted from the study is 620 girls to 1000 boys. We found that the sex ratio goes on decreasing with increasing birth order. The fact that there were more mothers with two previous girls than there were mothers with two previous boys suggests a tendency among mothers with girls to have more children in the hope of having a boy, while mothers with boy children tend to stop having more babies. In the natural course of events where sex ratio is not manipulated by human intervention, if there is a preference for males, the overall sex ratio will favor girls. This is because of the biological heterogeneity which results in families tending to have children of same sex. This phenomenon is not evident in India which suggests that there is more direct manipulation of the sex ratio in India.⁴

Suggestions

- Monitoring and counseling of families especially the families with previous two girls should be done at the community level and there should be National Policy for Improving the Sex Ratio at Birth.
- Strengthen current legal regime to prevent misuse of medical technology for sex selection & plan legislative framework for the future (PC&PNDT Act).
- Sensitize frontline health workers & other public officials to promote positive social attitudes towards women.
- There should be National Policy for giving social security and equal rights to females so that parents do not feel any type of social or financial insecurity.

CONCLUSION

There should be National Policy for giving social security and equal rights to females so that parents do not feel any type of social or financial insecurity. Monitoring and

counseling of Families especially the families with previous two girls should be done at the community level.

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