Masculinisation with Increasing Parity in Agroha Village of Haryana

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ABSTRACT

Introduction: The proportion of girls "missing" has risen sharply, there are obvious moral and human concerns generated by such extreme manifestation of gender inequity. In India, increase in overall sex ratio shown by the 2011 census is applauded at several forums. However, decline in the child sex ratio i.e. number of girls to boys in 0-6 years age group fell from 927 in 2001 to 914 in 2011. It is the lowest since independence. Haryana is among the most affected state regarding imbalance of child sex ratio. Therefore, this study was conducted to assess the present child sex ratio and its trend in Agroha village of Haryana.

Material and Methods: This community based cross sectional study was conducted in Agroha village of Haryana. Five hundred and fifteen mothers having children in the age group of less than 6 years were selected for the study. The primary tool in this study was predesigned and pretested interview schedule for recording of family and individual information. Data were analyzed by using appropriate statistical tests (viz. Proportions, Mean ± SD, Chi-square test etc.).

Results: With increasing parity significant decline in child sex ratio was observed. Sex Ratio for 1st birth order children was 929 females per 1000 males. It fell in the 2nd birth order to 830, 3rd birth order to 699, 4th birth order to 462, 5th birth order to 417 and still further to only 308 for 6th birth order. There was a significant linear relationship between adverse child sex ratio in the study population with increasing birth order.

Conclusion: As masculinisation with increasing parity was observed in the study area, it is concluded that Haryana has yet a long way to go in her fight against declining child sex ratio.

Keywords: Child Sex Ratio, Masculinisation, Increasing Parity.

INTRODUCTION

The divine are extremely happy where women are respected; where they are not, all actions (projects) are fruitless.[1] In our country a child is denied the right to life only because she is a girl. Her right to bloom and blossom is nipped in the bud. The proportion of girls "missing" has risen sharply, the matter of missing women is far from a minor issue, but ranks amongst the worst human catastrophes of twentieth century as it is larger than the combined casualties of all famines in the century.[2]

In India, increase in overall sex ratio shown by the 2011 census is applauded at several forums.[3] However, decline in the child sex ratio i.e. number of girls to boys in 0-6 years age group fell from 927 in 2001 to 914 in 2011. It is the lowest since independence. Child Sex ratio in Haryana is lowest i.e. 819 in 2001 and 830 in 2011. Therefore, Haryana is amongst the most affected state regarding imbalance of child sex ratio. Moreover, it is surprising that the sex ratio

in all the districts of Haryana is below the National Average (940).[4] An abnormally low sex ratio (877) in the state has usually been attributed to a relatively larger excess of males over females at birth, and a higher death rate among females than males in all the age groups.[5] The rank of Hisar District in respect of sex ratio is 587 out of 640 districts and the child sex ratio of the district is 851 in 2011,which speak of its poor performance on this front.[4]

Over different time periods it is the second and higher order births which manifest lower sex ratios, which could also be a consequence of the declining fertility norm which allows less room for daughters in the family.[6]

The trends in the sex ratios of children have seemed to move inexorably towards a greater masculinisation of the population. On the whole, the secular increase in masculinity in the sex ratio at birth, coupled with improved survivorship during childhood, is adding to the intensity of the decline in child sex ratio.[5] In order to explore all these facts the present study is an attempt towards this direction.

Current research aimed to study socio-demographic profile of study subjects having children in the age group of 0-6 years ad to find out the present child sex ratio (0-6 years) and its trend in Agroha village of Haryana.

MATERIAL AND METHODS

The present community based cross sectional study was conducted in Agroha village of Haryana, which is the field practice area of the department of Community Medicine, Maharaja Agrasen Medical College, Agroha (Hisar); taking operational feasibility into consideration. The study was conducted from April 2018 to June 2019 in mothers having children in the age group of 0-6 years in Agroha village of Haryana.

Based on existing information from the District Statistical Office, Hisar;[7] the total number of houses in the study area was 1491. Population size of Agroha village was 7722 and proportion of children in the age group of 0-6 years was 13.71% of the population. Therefore, total number of

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children in the age group of 0-6 years was 13.71% of 7722 i.e. 1059. Mothers of these 1059 children in the age group of 0-6 years were the study subjects i.e. 515 mothers.

Universal coverage of all the houses and all the families residing in Agroha village was done by door to door survey for complete enumeration of families having children in the age group of 0-6 years. In case a house was found locked or the mother was not available the house was revisited again during the subsequent visit. Only those houses were not covered which were found to be either locked or where the mother was not available for three consecutive visits. If in a particular family the mother was not alive then the information was elicited from the grandmother or father (whoever was available).

Primary tool in this study was a predesigned and pretested interview schedule for recording of family and individual information. Socio- economic status of the study subject was assessed by Udai Pareek's revised scale for rural areas.[8]

The data thus collected were entered and compiled in the MS Excel sheet. Statistical analysis was carried out using SPSS (Statistical Package for Social Sciences) Software Version 20.0. Data were analyzed by using appropriate statistical tests (viz. Proportions, Mean ± SD, Chi-square test etc.).

Inclusion criteria
1. Mothers having children in the age group of 0-6 years; who were willing to give their consent to participate in the study.
2. If mother was not alive then the information was elicited from the grandmother/ father (whoever was available).

Exclusion criteria
1. Mothers having children in the age group of 0-6 years; who were not willing to give their consent to participate in the study.
2. Those houses were not covered which were found to be either locked or where the mother was not available for three consecutive visits.

RESULTS

In this study, majority (70.68%) of study subjects belonged to the age group 23-32 years and mean age of mothers was 27.66 ± 4.594 years. Husbands of the respondents were in the age group of 23-37 years (87.76%). Three hundred and seventeen (61.55%) study subjects got married before 19 years of age and mean age at marriage was 19.06 ± 2.917. In majority (83.30%) of mothers the age at first child birth was below 24 years and the median age at first child birth was 21 years. (Table 1)

Majority (61.75%) of the study subjects was educated up to intermediate level, corresponding value for their husband was 73.20% and eighty nine (17.28%) mothers and 51 (9.90%) fathers were illiterate.

Three hundred and twenty five (63.11%) of the respondents belonged to joint families. Out of 515 study subjects, 94.95% were Hindu and rest 5.05% were Muslim. Caste distribution shows that 42.13% belonged to Scheduled Caste category; corresponding values for General and OBC categories were

Parameters	N	Number	Percentage
Age of Mother (Years)			
18-22	515	72	13.98
23-27		196	38.06
28-32		168	32.62
33-37		68	13.20
38-42		11	2.14
Age at marriage (Years)			
<19	515	317	61.55
20-24		173	33.60
≥25		25	4.85
Age at first child birth (Years)			
≤19	515	157	30.48
20-24		272	52.82
25-29		86	16.70
Age of Father (Years)			
18-22	515	10	1.94
23-27		151	29.32
28-32		195	37.86
33-37		106	20.58
38-42		47	9.13
≥43		06	1.17

Table-1: General characteristics of the mothers (respondents) and fathers having children in 0-6 years age group.

Parameters	Number	Percentage
Type of family		
Nuclear	190	36.89
Joint	325	63.11
Religion		
Hindu	489	94.95
Muslim	26	5.05
Caste		
Scheduled caste	217	42.13
Other backward caste	93	18.06
General (Others)	205	39.81
Socio economic status (As per Udai Pareek's Revised Scale)		
Upper class	00	0.00
Upper middle Class	72	13.98
Middle Class	175	33.98
Lower middle Class	228	44.27
Lower Class	40	7.77
Total	515	100.00

Table-2: Family attributes of respondents (n=515)

No. of male children in 0-6 years age group	No. of female children in 0-6 years age group	Total children in 0-6 years age group	Child Sex Ratio (Number of females per 1000 males in 0-6 years age group)
583	478	1061	820

Table-3: Child Sex Ratio amongst mothers having children in 0-6 years age group in Agroha Village

39.81% and 18.06%, respectively. As much as 13.98%, 33.98% and 44.27% of respondents belonged to upper middle, middle and lower middle socio-economic status,

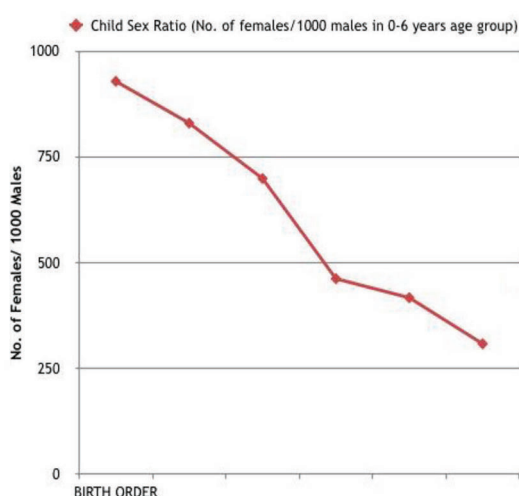| Birth order	N	No. of children in 0-6 years age group		CSR (Females per 1000 males in 0-6 yrs age group)	χ2 for linear trend	p
		Male (%)	Female (%)			
1st	515	267 (51.8)	248 (48.2)	929	9.914 (df=1)	0.002
2nd	333	182 (54.7)	151 (45.3)	830		
3rd	141	83 (58.9)	58 (41.1)	699		
4th	38	26 (68.4)	12 (31.6)	462		
5th	17	12 (70.6)	5 (29.4)	417		
6th	17	13 (76.5)	4 (23.5)	308		
Table-4: Child Sex Ratio as per birth orders.						

Figure-1: Trend of Child Sex Ratio with Increasing Birth Order.

respectively; corresponding value for low socio-economic status was only 7.77%. (Table 2)

In this study, 515 mothers were having 1061 children in 0-6 years age group. Out of these 583 were male and 478 were female children. Present child sex ratio (CSR) of the study area is 820 females per 1000 males. (Table 3)

With increasing parity significant decline in child sex ratio was observed (p=0.002). Child sex ratio for 1st birth order children was 929 females per 1000 males. It fell in the 2nd birth order to 830, 3rd birth order to 699, 4th birth order to 462, 5th birth order to 417 and still further to only 308 for 6th birth order (Table 4). On applying Chi square trend analysis it was seen that there was a linear relationship between adverse child sex ratio in the study population with increasing birth order (Figure1).

DISCUSSION

Child sex ratio of any country is not just a demographic variable but an important indicator of country's gender development index.[9] The child sex ratio is interplay of several demographic and social factors operating in a population. Changes in child sex ratio index reflect underlying socio-economic and cultural patterns of the society, especially its attitude towards the girl child. In Haryana, there are various social, economic, demographic indicators provide evidences of declining child sex ratio and inequity against girl children.[10]

On the whole, the secular increase in masculinity in the sex ratio at birth, coupled with improved survivorship during childhood, is adding to the intensity of the decline in child sex ratio. In our study it was found that as the parity increases, decline in child sex ratio was observed. The child sex ratio (CSR) in our study area (Agroha village of Hisar district, Haryana) was 820 females per 1000 males, which is much lower than the national figure of 914 female per 1000 males. It is in conformity with the low child sex ratio of whole of the state of Haryana. All the districts in Haryana recorded a child sex ratio of less than 900 females per 1000 males except Mewat (903) with an average of the state as 830. The CSR in our study is also lower than the district average of 851 as well as rural (853) and urban (843) child sex ratio of the district Hisar The CSR reported by Warade et al[11] (908) and Pagar SD[12] (890) are much far off from our study results. The CSR in our study is comparable with that of Punjab (846) and a little lower than Jammu & Kashmir (862) and Delhi (871).[4] The major reasons for low child sex ratio may be due to male dominating culture, the combine effects of sex selective test, abortions of female foetus and female disadvantages in mortality of children.[12]

In our study it was found that as the parity increases, decline in child sex ratio was observed. Sex Ratio for 1st birth order children was 929 females per 1000 males. It fell in the 2nd birth order to 830, 3rd birth order to 699, 4th birth order to 462, 5th birth order to 417 and still further to only 308 for 6th birth order. There was a significant linear relationship between adverse child sex ratio in the study population with increasing birth order. The results of this study is lower than that reported by Warade Y et al[11] in Mumbai; where sex ratio was 972 females per 1,000 males in primi para, which decreased to 879 females per 1,000 males in second para, further reduced to 784 females per 1,000 males in third para and comparable with observations of Toppo M et al[13] who reported sex ratio as 946 for the first birth order, which is declining, to 788, 731, and 525 as the birth order is increasing. Since sex ratio at birth is the most accurate

and redefined indicator of sex selection at birth, no other explanation for this decline could be reached.

In view of lower CSR in from 2nd birth order onwards the most possible explanation that surfaces it that there is a conscious intervention to prevent the birth of female child. If sex selective abortion is occurring, one would expect it to be much less common in first order births, because most couples consider sex selective abortion only when they approach their desired family size without having attained their desired number of sons and daughters. That is why child sex ratio turns adverse in higher birth orders.[14]

The fact that usually there is absence of foetal sex determination practices in 1st birth order pregnancy has also been validated in our study as the sex ratio for the 1st birth order was most favorable i.e. 929 females per 1000 males which suggests acceptance of either sex of first child. Difficult to say though there arises slight doubt whether sex selective abortion may have also taken place in the 1st birth order itself in our study as CSR was much lower than 1000.

CONCLUSION

As masculinisation with increasing parity was observed in the study area, it is concluded that Haryana has yet a long way to go in her fight against declining child sex ratio, pre-birth elimination of females. Time is quickly ticking away. A shortage of girls would lead to a shortage of eligible brides thus making the girl a "scarce commodity". Men in the states of Haryana are already experiencing a nearly 20% deficit of marriageable women. A concerted effort by the medical fraternity, the law, political leaders, NGOs, media, teachers and the community itself is the need of the hour.

Recommendations

1. **Intensive Information, Education and Communication (IEC):** Intensive Information, Education and Communication campaigns for raising awareness among the public regarding the serious consequences of decline in female sex ratio.

2. **Role of women:** The women who are elected as sarpanch in the village panchayats and organized women's groups at village and urban slum ward areas could take a serious view of the unfavorable child sex ratio in their settings to think, plan and act locally and share this with the village community. Collective action plans could be evolved to save the girl child and check proper implementation of the same.

3. **Implementation of Government initiatives:** The Ladli Scheme, Beti Bachao Beti Padhao, Aapki Beti Humari Beti, Janani Suraksha Yojna, Special intervention for adolescent girls (SAG), Selfie with Daughter, etc. should be implemented effectively.

4. **Strengthening legal systems:** Strengthening legal systems aimed at elimination of all forms of discrimination against women is the need of the hour.

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