

A community-based, cross-sectional study of gender egalitarianism: A promising scenario from an urban field practice area attached to a teaching institute from Central India

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ABSTRACT

Context: Gender-based discrimination is more predominant in India. In spite of various laws, gender inequality is an evil that plagues society even today. This is an important challenge for meeting our Sustainable Development Goals. **Methods:** This cross-sectional study was carried out in an urban field practice area. Study subjects were married women and their husbands in the age-group of 15–49 years along with their under-five children. Gender egalitarianism was assessed for factors like education, employment and media exposure. Factors which were studied for revealing gender egalitarianism among children included sex ratio, immunization status, nutritional status and health care expenditure. Completed family size and preference for the sex of the child were enquired about to assess the inclination towards male gender of the baby. Anthro software was used for statistical analysis. **Results:** Gender egalitarianism was found with regards to education. However, significant difference was noted in the employment status of men and women. Overall, sex ratio was in favor of girls. Though gender inequality was evident from the results, it was more in favor of girls. There was no evidence of gender bias for immunization of children. It was observed that more boys were stunted than girls and almost equal proportion of boys and girls were wasted. **Conclusions:** Factors like high literacy, control over income, access to financial resources made women more empowered and such empowered women were less likely to show son preference. Hence, there was no gender inequality among children in the present study.

Keywords: Community, equality, gender egalitarianism, health care expenditure, sex ratio, women employment

Introduction

Social discrimination leading to inequalities in health have received increasing attention in health research and policy-making in recent years, and have been the subject of a variety of meetings,

publications and governmental reports. Still, successful action to reduce and prevent health disparities for all people is difficult to implement.^[1] Gender related social change, as reflected in patterns of employment, education, family and household structure, leisure and consumption at the societal level, and in the everyday experience of individual men and women, has been high on the policy agenda and a topic of widespread academic interest worldwide since the mid-1980s.^[2] In India, inequality between men and women exist in various areas like education, economic

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Received: 07-01-2022

Revised: 19-03-2022

Accepted: 05-07-2022

Published: 14-10-2022

Access this article online

Quick Response Code:



Website:
www.jfmpc.com

DOI:
10.4103/jfmpc.jfmpc_47_22

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How to cite this article: Choudhary SM, Kubde S, Ukey UU, Agrawal SB, Shinde RR. A community-based, cross-sectional study of gender egalitarianism: A promising scenario from an urban field practice area attached to a teaching institute from Central India. J Family Med Prim Care 2022;11:5593-8.

opportunities, representation in governance, and other state and private institutions. Additionally, Indian females are prone to come across violence at multiple periods of their lives. Studies across India have documented the widespread prevalence of domestic violence, encompassing an array of physical, sexual and/or psychological acts inflicted by intimate male partners.^[3] Gender inequity related to physical activity behavior has also been reported, with boys reporting more active behaviors.^[4] In relation to females, male children under the age of five have been found to have a lower probability of death and are more likely to be taken to a health provider when ill. Household expenditures on childhood illnesses are also biased in favour of males.^[5]

Millennium Development Goal (MDG) no. 3 addresses the promotion of gender equity and women empowerment.^[6] Gender inequality between men and women has been identified as one of the challenges faced by the primary care physicians as well as the health administrators for achieving Sustainable Development Goals (SDGs).^[7] Laws, legislations, and bills have been passed time and again to promote women empowerment. Since the advent of independent India, the important women-specific legislations which have been passed are the Immoral Traffic (Prevention) Act, 1956, the Dowry Prohibition Act, 1961 and the Protection of Women from Domestic Violence Act, 2005.^[8] But these suffer from insufficient enforcement due to ambiguity in law and definitions.^[6]

Women in the reproductive age group are the prime targets of national health programs that aim at improving maternal and child health, eventually ameliorating primary care and thus achieving other desired demographic goals. There are strong links between women's status, health and fertility rates, which makes gender egalitarianism a critical strategy for enhancing health and for promoting change in reproductive attitudes and behavior. Despite all of these facts, there is a dearth of literature on the topic especially from the current study area. With this backdrop, the present study was planned with the aim and objective to study gender egalitarianism and factors influencing it in an urban community of Central India.

Subject and Methods

This was a cross-sectional study carried out in the urban field practice area under the community medicine department at a teaching institute in Central India. The area is situated at a distance of six kilometers from the medical college. Five hundred families have been adopted under the training center, and all were included for the present study which was carried out from August 2017 to December 2019. The present study location was a slum area with most of the families belonging to the lower socioeconomic status. Most of the men worked as laborers and women as domestic help.

Approval was obtained from the Institutional Ethics Committee (IEC) before starting the study. Ethical aspects of the study participants were given due consideration according

to Helsinki declaration. Prior to initiating interview of the study participants, they were well informed about the nature and purpose of the study and information required from them. Full cooperation of each participant was confirmed and a rapport was established. Confidentiality of the study subjects was assured and anonymity was maintained throughout the study. Written, informed consent of each study participant was taken before the interview. Participation in the study was entirely on voluntary basis.

Data collection was done via house-to-house survey using interview technique. All the households from the adopted community were included. Gender equality was studied separately for currently married men and women between 15 to 45 years age, and for under-five children. Data collection was carried out using a predesigned structured interview schedule. This was prepared by the researchers themselves based on the available literature on the topic. Based on their suggestions, necessary changes were made to the schedule. Pilot testing of the proforma was carried out to ensure quality and maintain validity and reliability of it. The interview schedule was opined upon by a panel of experts from the field who were not related to the study. It included questions to assess gender equality for currently married men and women between 15 and 45 years of age for factors like education, employment and media exposure. Factors which were studied for revealing gender equality among under-five boys and girls included sex ratio, immunization status, nutritional status and health care expenditure. Son preference was studied by asking currently married women about preference for the gender of the child and by assessing completed family size based on the number of living sons in the family.

Currently married women and men were defined as persons who were currently married and were not divorced, widowed or separated; it also included persons living in consensual unions or in visiting partnerships. Complete immunization status was defined as children who at the age of one had received three vaccination doses of diphtheria, pertussis and tetanus each, three doses of poliomyelitis vaccine, a dose of measles vaccine, and a dose of tuberculosis vaccine (BCG). Completed family size meant the total number of children born by a woman during her child bearing age.

Statistical analysis: Data obtained by interview were entered into Microsoft Excel spreadsheets. Statistical analysis was performed to obtain percentages, mean, etc., Data were presented in the form of tables and graphs. Chi-squared test was applied to understand the significance of the study. Statistical significance of difference was tested, and a *P* value of less than 0.05 was taken as significant. Weight-for-age *z* score, height-or-age *z* score and weight-for-height *z* score were calculated for nutritional status assessment by using WHO Anthro version 3.1.0 software.

Results

A total of 495 families of urban field practice area were studied. The number of currently married 15–45-year-old women was

426 out of which 419 were available for interview. The number of currently married men in the age group of 15–45 years was 366 out of which 341 were present at home at the time of survey. There were 161 under-five children, out of which 154 were examined. Table 1 shows gender equality among currently married men and women, based on three parameters, viz., education, employment status and media exposure. It was observed that most of the men and women were educated up to secondary school. The difference between men and women's education was not statistically significant. Most of the men, i.e., 98.24% were employed in some occupation, as against only 36.28% of women, and the difference was statistically highly significant. Thus, more men were employed in some occupations than women. With regards to media exposure, more men were watching television, going to the cinema and were reading newspaper, as compared to women, and the difference with each of these was statistically significant. More men than women were listening to radio, but the difference was not statistically significant.

Table 2 onwards and Figure 1–2 show gender egalitarianism among under-five children. As seen in Figure 1 and 2, the overall sex ratio was in favor of females. In the first two years of life, it was favorable to boys, though it showed an increasing trend. As seen in Table 2, more boys were immunized as compared to girls, but the difference was statistically not significant. Similarly, the difference between nutritional status [Table 3] and health care expenditure for boys and girls was not statistically different [Table 4]. Most of the women (204/419), i.e., 48.69% had no preference for the sex of the child [Figure 3]. When there was at least one son in the family, 55.17% of women had preference for son, and 44.83% had preference for daughter, but the difference was found to be statistically non-significant. ($\chi^2 = 2.028$, $df = 1$, $P = 0.1544$). Table 5 shows completed family size of currently married women according to

number of living sons in the family. As shown, when there was no living son in the family, about 45.94% of women had family size of more than two, and when there was at least one living son in the family, 44.56% women had family size of more than or equal to two. This difference was statistically not significant.

Discussion

The study presented a detailed observation about gender egalitarianism and certain correlates of the same in an urban area. The present study observed no significant difference in educational level between currently married men and women; hence no gender inequality was found with regards to education

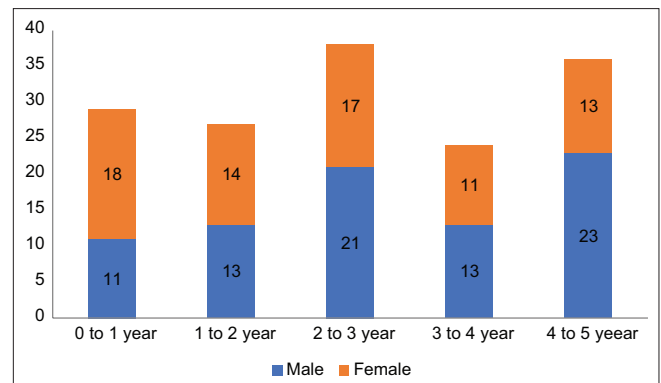


Figure 1: Gender-wise distribution of under-five children

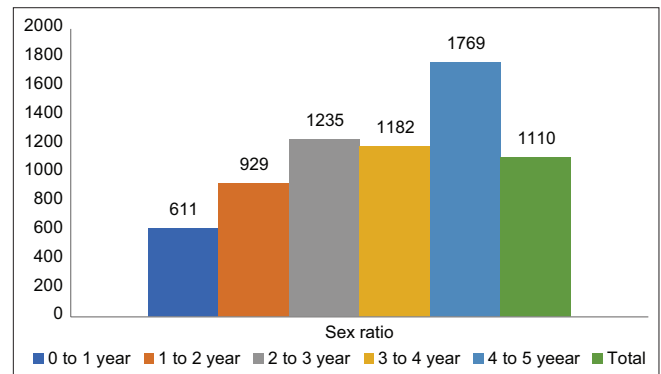


Figure 2: Sex ratio of under-five children

	Men		Women	
	No.	Percentage	No.	Percentage
Education				
Illiterate	12	3.52	24	5.74
Primary	21	6.16	27	6.44
Secondary	230	67.45	260	62.05
Higher secondary	49	14.37	65	15.51
Graduate and above	29	8.50	43	10.26*
Employment status				
Employed	335	98.24	152	36.28
Unemployed	6	1.76	267	63.72 †
Media exposure				
Television	336	98.53	399	95.23‡
Radio	156	45.75	172	41.05§
Cinema	36	10.56	24	5.73
Newspaper	262	76.83	122	29.12¶

* $\chi^2=2.47$, $df=1$, $P=0.2754$. † $\chi^2=313.59$, $df=1$, $P=0.0000$. ‡ $\chi^2=6.46$, $df=1$, $P=0.0110$. § $\chi^2=1.69$, $df=1$, $P=0.1934$. || $\chi^2=6.03$, $df=1$, $P=0.0141$. ¶ $\chi^2=302.38$, $df=1$, $P=0.00001$

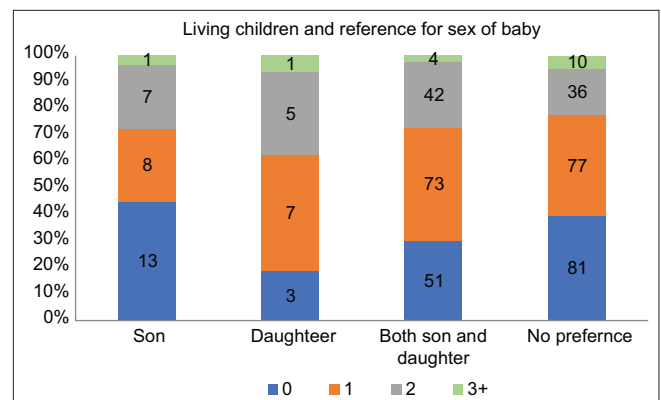


Figure 3: Preference for sex of child by currently married 15–49-year-old women

Table 2: Gender-wise immunization status of under-five children

Ag group (years)	Boys						Girls					
	Complete		Incomplete		Total		Complete		Incomplete		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1-2	10	71.43	4	28.57	14	25.45	8	61.54	5	38.46	13	18.57
2-3	17	100	0	0	17	30.9	19	90.48	2	9.52	21	30
3-4	10	90.9	1	9.1	11	20	13	100	0	0	13	18.57
4-5	12	92.31	1	7.69	13	23.65	21	91.3	2	8.7	23	32.86
Total	49	89.1	6	10.9	55	100	61	87.14	9	12.86	70	100

$\chi^2=0.11, df=1, P=0.7394$

Table 3: Gender-wise nutritional status of under-five children

Nutritional status indicator	Boys (n=73)		Girls (n=81)		χ^2, P
	No.	%	No.	%	
Wt. for age z score < -2	18	25.71	26	32.1	0.74, 0.3893
Ht. for age z score < -2	23	32.86	18	22.22	2.15, 0.1428
Wt. for Ht. z score < -2	19	27.14	22	27.16	0.00, 0.9981

Table 4: Gender-wise health care expenditure on under-five children

Age group (years)	Health care expenditure (Rs/month)			
	Boys		Girls	
	Mean	SD	Mean	SD
0-1	380.55	233.35	450	372.15
1-2	371.42	178.36	400	230.94
2-3	323.52	223.68	319.04	172.82
3-4	386.36	251.08	284.61	154.62
4-5	292.30	188.02	298.26	219.14

$z=0.34, P>0.05$

Table 5: Influence of number of living sons on completed family size according to

No. of live sons	Completed family size									
	One		Two		Three		Four+		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
0	6	16.22	14	37.84	16	43.24	1	2.70	37	100
1	6	5.88	66	64.71	22	21.57	8	7.84	102	100
2	0	0	35	46.05	38	50	3	3.95	76	100
3+	0	0	0	0	11	73.33	4	26.67	15	100
Total	12	5.22	115	50	87	37.83	16	6.95	230	100

in the study area. This finding was not similar to the previous studies of Jain *et al.*^[9] and Kishor *et al.*,^[10] which reported more literacy among men than women, suggesting gender inequality in educational attainment. However, significant difference was noted in employment status of currently married men and women. It was observed that more men were working as compared to women, showing existence of disparity in employment, and this finding was similar to that reported by Kishor *et al.*^[10] The present study found that more men watched television, went

to the cinema and read the newspaper than women, and the difference was statistically significant. A similar finding has been reported in the National Family Health Survey-3.^[11] The role of social reforms and demographic development in achieving gender equality has been suggested by other authors in their study in the Asian region.^[12]

In the present study, overall sex ratio of under-five children was in favor of girls. Though gender inequality was evident from the results, it was more in favor of girls. However, previous studies^[10,13,14] found sex ratio in favor of boys. The study revealed that slightly more number of under-five boys were completely immunized than girls; however, the difference was statistically non-significant. So, there was no evidence of gender bias for immunization of under-five children which is consistent with other studies.^[10,14,15] There was no gender bias reported with regard to immunization of under-five children in these studies. The finding that more girls were found to be underweight than boys is consistent with other studies.^[10,15,16] However, the present study observed that more boys were stunted than girls. Moestue^[17] also observed higher prevalence of stunting among boys. The effect of gender equality on health-related goals and mortality rates has been reported in another similar study.^[18] An almost equal proportion of boys and girls were found to be wasted in the present study. The difference observed in the nutritional status of boys and girls was statistically non-significant. Thus, there was no evidence of gender inequality with regard to nutritional status of under-five children.

Mean health expenditure on boys was seen to be more than girls but the difference was statistically non-significant, which indicates that there was no evidence of gender bias. Another study, however, revealed the effect of gender on health expenditure.^[19] Similarly no association was found between number of living sons and preference for male child, and between number of living sons and family size. So, in the present study, son preference was not observed. However, most of the studies in India,^[15,20-22] observed son preference. Most of the women in the present study were literate. They had control over income, and had access to financial resources. Their participation in decision-making was high. Most of them enjoyed freedom of movement and had positive gender role attitude. These factors made them more empowered and such empowered women were less likely to show son preference. The role of empowerment of women for decision making in family matters has been presented by another

researcher as well.^[23] Hence, there was no evidence of gender inequality found among under-five children, and son preference was also not evident in the present study.

The limitations of this study should be noted outright. First, all data were self-reported by participants and, therefore, are subject to recall and social desirability biases. Second, because data were used only from the adopted community of the center, our sample is relatively small and may differ from slum communities as a whole. Thus, the study has certain inherent limitations pertinent to a cross-sectional nature of a survey. However, these limitations do not dilute the findings of the present study. Community-based survey is the prime strength of the study. It also tried to gather the primary data via actual person contact. A fruitful attempt was made to estimate all the factors related to gender discrimination whether present or not.

Highlights of the study: This was a community-based study conducted in an urban field practice area to assess gender equality and possible factors influencing it. This study marks its imprint to the literature in the way that it is the first one covering urban population to assess the impact of numerous sociodemographic and health-related details. The results of the study will serve as a guide to primary care physicians to prioritize area of focus pertaining to gender.

Conclusions

We conclude that the women of our adopted field practice area were more empowered which was reflected by their high literacy, control over income, access to financial resources, and freedom of movement. Such empowered women didn't show son preference. There was an evidence of gender egalitarianism among children too. Similar studies with different study design need to be done in other areas, rural as well as urban, to generate further corroboration on gender equality to gain insight on reaching the sustainable development goal and also to identify the measures that can be taken to achieve universal health coverage.

Acknowledgements

The authors express their gratitude toward the study participants for participating in the study. They also acknowledge the help by the urban health center staff in conducting the study.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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