

Gender disparity in health and nutritional status among under-five children in a rural field practice area of Shri BM Patil Medical College

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Abstract

Background: It is the right of every child to know and be cared for by his/her parents. The responsibilities for the child's well-being rely on both the parents and the society. Since the ancient times, it is the gender that determines the position of a child in the Indian society. Of late, owing to socioeconomic factors, the incidences of neglect, abuse, and deprivation, particularly, with the girl child, have gradually increased. Denial of equality, rights, opportunity, and supplement in any form on the basis of gender is gender discrimination. Gender discrimination is owing to the attitude and behavior of the society toward the girl child. The girl child faces the neglect of the family in the form of a failure to provide her the basic necessities of life in terms of food, clothing, love, shelter, supervision, education, and medical care.

Objective: To assess the magnitude of gender disparity in nutritional status and health-seeking behavior among parents in children aged under-5 years.

Materials and Methods: A cross-sectional study was conducted in Shivanagi, the rural field practice area of BLDE University's Shri BM Patil Medical College, Bijapur, Karnataka, India, from November 2013 to December 2013. A total of 161 under-five children from the five anganwadi centers in the Shivanagi region were selected. The majority of the children were within the range of normal as per WHO 2006 growth charts.

Result: Male children were more malnourished than female children. Although the frequency of falling ill is the same between both the genders, the treatment was given more importance to male than female children.

Conclusion: The overall prevalence of disease was low in our study area. The majority of the children suffered with fever, diarrhea, and acute respiratory infection. Significant differentiation was observed between the male and female children with regard to the time lag between child falling ill and initiation of treatment and the amount spent for treatment. Male children were more malnourished than female children. This is contrary to the general belief that female children are more malnourished.

KEY WORDS: Gender, bias, girl, illness, malnourished

Introduction

It is the right of every child to know and be cared for by his/her parents. The responsibilities for the child's well-being

rely on both the parents and the society. Since the ancient times, it is the gender that determines the position of a child in the Indian society. Of late, owing to socioeconomic factors, the incidences of neglect, abuse, and deprivation, particularly, with girl child, have gradually increased. Gender is a common term. Denial of equality, rights, opportunity and supplement in any form on the basis of gender is gender discrimination. Gender discrimination is meant for women, because the female subjects are more often the victims. The girl child faces the neglect of the family in the form of a failure to provide her the basic necessities of life in terms of food, clothing, love, shelter, supervision, education, and medical care. Differential treatment of the boys and girls within families can be attributed

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to the social religious, cultural, and economic returns that sons provide to their parents relative to the daughters.^[1] Gender inequality exists in every country, but it varies in degree. According to the Human Development Report of 2011 by United Nations Development Project, India ranks 134 in this list with the Gender Discrimination Index value of 0.617.^[2] A major area of concern and focus in India is the remarkable degree of variation in demographic profile, socioeconomic factors, and cultural practices. Hence, in this scenario, this study was conducted to assess the magnitude of gender disparity in nutritional status and health-seeking behavior among parents in the children of under-5 years of age, BLDE University's ShriBMPatil Medical College (BLDEU's SBMPMC), Bijapur, Karnataka, India.

Materials and Methods

A cross-sectional study was conducted in Shivanagi, the rural field practice area of BLDEU's SBMPMC, from November 2013 to December 2013. A total of 161 under-five children from the five anganwadi centers in the Shivanagi region were selected. Data were collected after doing the gender match. A pretested, predesigned, semi-structured questionnaire was used to collect the data. The WHO Growth Charts (2006)^[3] were used to classify the children as normal, mild to moderate, and severe type of malnutrition.

Result

Of the 161 under-five children, 72 (44.7%) children were classified as underweight for their respective age [Table 1].

Table 1: Sociodemographic profile of the children

	Frequency, n = 161	%
Age group		
0–12	17	10.6
13–24	43	26.7
25–36	40	24.8
37–48	37	23
48–60	24	14.9
Religion		
Hindu	126	78.3
Other religions	35	21.7
Sex		
Male	80	49.7
Female	81	50.3
Type of family		
Nuclear	45	27.8
Joint	116	72.2
SES		
1	11	6.8
2	23	14.3
3	48	29.8
4	61	37.9
5	18	11.2

Around 40% of male children were classified as mild to moderately underweight when compared with 23.5% of female children. However, a higher percentage of female children (17.3%) were severely underweight than male children (8.8%). The association was also found to be statistically significant [Table 2].

Stunting was seen more in the female children (30.9% vs. 17.5%) than male children. The association was found to be statistically nonsignificant [Table 3].

On measuring the weight for height of the under-five children using the WHO Growth Charts, male children were found to be wasted than the female children. But, the association was found to be statistically nonsignificant [Table 4].

The health status of the under-five children was taken in the last 1 month of the interview in order to reduce the recall bias. About 42.9% (45% male and 40.7% female) children presented some kind of illness in the last 1 month. Fever, cold, cough, pneumonia, and diarrhea were the major illnesses seen in the study population. All the male children were taken to the hospital and given treatment, whereas only 88.6% of the female children received the same. The majority of the children, both male and female, were taken to the government hospital to obtain treatment. Parents used to travel a longer distance to avail the treatment for the male children than female children [Table 5]; moreover, a higher amount of money was also spent on the treatment of male children when compared with the female children. The statistical association was found to be nonsignificant [Table 6].

Discussion

The majority of the children were between the age group of 13 and 36 months, with the majority (78.3%) belonging to the Hindu by religion. Equal number of boys and girls were present in the study. About 72.2% of the children belonged to joint family. Overall, 44.7% of the children were underweight, 39.7% were stunted, and 30.3% were wasted. About 42.9% of children presented with some form of illness in the last 3 months. About 82% of the children with disease availed the treatment from government hospital and the rest from the private hospital. Parents of the under-five children preferred to travel and spend more money on the male children when compared with the female children.

The median height and weight of the majority of children were within the normal range of the WHO reference data. Although, it is believed that male children are better and well-nourished than the female children, the finding in our study is contradictory, which is a positive sign. Similar kind of results were also seen in the studies done by Ray et al.,^[4] Pathak,^[5] and Chakraborty et al.^[6] No such significant difference was observed between both the sexes regarding the prevalence of disease. Similar results favoring the male child in health care-seeking behavior of parents was also seen in the studies done by Pandey et al.,^[7] Ganatra and Hirve,^[8] Willis,^[9] Pokhrel,^[10] and Pathak.^[5]

Table 2: Distribution of children based on weight for age

Weight for age	Gender		Total
	Male subjects, N (%)	Female subjects, N (%)	
Normal (+2 SD to -2 SD)	41 (51.2)	48 (59.3)	89 (55.3)
Underweight			
Mild to moderate (-2 SD to -3 SD)	32 (40)	19 (23.5)	51 (31.7)
Severe (less than -3 SD)	7 (8.8)	14 (17.3)	21 (13)
Total	80 (100)	81 (100)	161 (100)

$\chi^2 = 6.19$; $p = 0.04$.

Table 3: Distribution of children based on height for age

Height for age	Gender		Total
	Male subjects, N (%)	Female subjects, N (%)	
Normal (+2 SD to -2 SD)	52 (65)	45 (55.5)	97 (60.2)
Stunting			
Mild to moderate (-2 SD to -3 SD)	14 (17.5)	25 (30.9)	39 (24.2)
Severe (less than -3 SD)	14 (17.5)	11 (13.6)	25 (15.5)
Total	80 (100)	81 (100)	161 (100)

$\chi^2 = 3.96$; $p = 0.13$.

Table 4: Distribution of children based on weight for height ($n = 122$)

Weight for height	Gender		Total
	Male subjects, N (%)	Female subjects, N (%)	
Normal (+2 SD to -2 SD)	36 (60)	49 (79)	85 (69.7)
Wasting			
Mild to moderate (-2 SD to -3 SD)	17 (31.7)	14 (19.4)	31 (25.4)
Severe (less than -3 SD)	5 (8.3)	1 (1.6)	6 (4.9)
Total	58 (100)	64 (100)	122 (100)

$\chi^2 = 6.25$; $p = 0.10$.

Table 5: Distribution of children based on distance traveled for the treatment

Distance traveled (km)	Sex		Total, N (%)
	Male subjects, N (%)	Female subjects, N (%)	
<2	20 (25)	22 (27.2)	42 (26.1)
2-5	40 (50)	31 (38.3)	71 (44.1)
5-10	11 (13.8)	19 (23.5)	30 (18.6)
>10	9 (11.2)	9 (11.1)	18 (11.2)

Table 6: Distribution of children based on amount spent for treatment

Amount spent (rupees)	Sex		Total, N (%)
	Male subjects, N (%)	Female subjects, N (%)	
Nil	2 (2.5)	2 (2.5)	4 (2.5)
1-100	27 (33.8)	28 (34.6)	55 (34.2)
101-250	46 (57.5)	39 (48.1)	85 (52.8)
>250	5 (6.2)	12 (14.8)	17 (10.6)

A study by the All India Institute of Medical Sciences examined health patterns in 85,633 children aged 0-36 months and found startling results that showed a gender bias toward girls. Of the children who were hospitalized at least once, 64.6% were boys and only 35.4% were girls.^[6] A large number of parents availed government service, because a majority of families belonged to lower socioeconomic class.

The possibility of the recall bias do exist in our study. Unfortunately, we could contact very few fathers during our

visit, as most of them were sole bread earners of the family and had left for the work. Hence, information on knowledge, attitude, and practice regarding child-rearing practices and care during illness has not been analyzed. Male children were more malnourished than female children. This is contrary to the general belief that female children are more malnourished.

Conclusion

The overall prevalence of disease was low in our study area. The majority of the children showed fever, diarrhea, and acute respiratory infection. Significant differentiation was observed between the male and female children with regard to the time lag between child falling ill and initiation of treatment and the amount spent for treatment. Male children were more malnourished than female children. This is contrary to the general belief that female children are more malnourished.

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