

Original Article

A STUDY OF GENDER DIFFERENCES IN TREATMENT OF CRITICALLY ILL NEWBORNS IN NICU OF KRISHNA HOSPITAL, KARAD, MAHARASHTRA

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ABSTRACT

Introduction: Sex ratio in India is adverse for girl. Gender-based health disparities are prevalent in India but very little data are available on care-seeking patterns for newborns. An attempt had been made to study gender differences in treatment of critically ill newborns in tertiary hospital.

Methods: Study includes total deliveries, NICU admissions and patients leaving against medical advice in NICU and neonates who were not admitted in spite of need for NICU admission. A study of various socio-demographic parameters and its correlation to denial of health care were also studied.

Result: A total of 191 babies were taken against medical advice, 134 (70.15%) females and 57 (29.84%) males. 141 babies in the NICU of which 94 (65.27%) were girls and 50 (34.72%) were boys. Families of 47 babies who needed NICU admission refused of which 40 (85.10%) were girls and 7 (14.89%) were boys. The odds ratio calculated is 3.448 which signify that chances of health care denial are 3.448 times greater for a female child. Various socio-demographic parameters were studied and significance of each parameter was determined.

Conclusion: Factors like previous girl child, literacy of mother and socioeconomic status play an important role in seeking health care facilities.

Key-words- Gender bias; Neonates; Health care

INTRODUCTION

Worldwide, the ratio of girls to boys is 1,000 for every 1,005¹. In India, there are only 914 girls for every 1,000 boys, and often far fewer². The NFHS survey reflects the female disadvantage is much more severe in rural than in urban areas. The disadvantage to the rural child is evident in the higher infant and neonatal mortality rates in rural than in urban areas in either sex³. Discrimination against the girl child occurs in every strata of society, having different forms of manifestation, but is more visible especially in

poverty stricken families or in families under financial stress. Although gender-based health disparities are prevalent in India, very little data are available on care-seeking patterns for newborns⁴. This study gives a clear view about the gender bias in rural Maharashtra and the biased society giving more health care facilities to boys than girls.

METHODOLOGY

This study includes the total number of deliveries conducted in our hospital, a trust-run

hospital between May 2009 to May 2012, and the neonates who were admitted to the NICU in this period.

The main focus of the study was on the neonates who were taken from hospital against medical advice in spite of needing continuation of treatment in the NICU and also neonates of families who denied admission in the NICU in spite of proper counseling about the need for NICU treatment to save the life of the baby. The NICU admissions were grouped into male and female and so were other data collected. Percentage wise details were obtained and data was compared. The families were interviewed about the reasons for discontinuation of treatment and the significance of these various sociodemographic factors was determined.

RESULT

The total deliveries conducted in the study period were 12440, out of these there were 1606 (12.90%) babies requiring NICU admissions. But only 1559 (97.07%) babies were admitted to the NICU, 927 (59.46%) being boys and 632 (40.53%) girls. There were 47 (2.92%) babies who needed NICU admission but the family refused of which 40 (85.10%) were girls and only 7 (14.89%) were boys. Of the 1559 admissions, 144 babies were taken against medical advice of which 94 (65.27%) were girls and 50 (34.72%) were boys.

Table 1: Gender wise distribution of babies taken against medical advice

	Girls (%)	Boys (%)
Leave against medical advice	94 (65.27)	50 (34.72)
Refusing admission	40 (85.10)	7 (14.89)
Total	134 (70.15)	57 (29.84)

Table 2: Referred and reached boys and girls

Referred	Required NICU services	
	Reached (%)	Dropout* (%)
Boys	927 (59.46)	57 (29.84)
Girls	632 (40.53)	134 (70.15)

Odds Ratio (95% CI) = 3.45 (2.49-4.78)

* Sum of left against medical advice and denied treatment

So a total of 191 babies were denied treatment in which there were 134 (70.15%) girls and 57 (29.84%) boys (Table 1). The Odds ratio is 3.448 which signify that the chances of health care denial towards girl babies are 3.448 times higher as compared to boys (Table 2).

Association of Various Socio-demographic Characteristic of Factors Associated with Denial of Treatment

Some sociodemographic factors associated with denial of health care were studied in the 191 patients and correlation amongst them was found. Table 3 gives the parameters and characteristics of the study population. Among the factors other than private income that have a strong influence on fertility and mortality, basic education-especially female education-is now widely considered one of the most powerful. Other factors inquired were previous girl child, socioeconomic status, decision making power in the household, caste and previous living issues. It was also observed that parents of neonates with any congenital anomaly or inherited syndromes refused any further intervention if they were not going to have a normal child.

Table 3: Comparison of Socio-demographic characteristic of factors associated with denial of treatment

Variable	Boys	Girls
Literacy		
Literate =132 (69.10)	65 (49.24)	67 (50.75)
Illiterate = 59 (30.89)	10 (16.94)	49 (83.05)
Previous girl child		
Yes = 177 (92.67)	43 (24.29)	134 (75.70)
No = 14 (7.32)		
Socio-economic status		
Low = 167 (87.43)	19 (11.37)	148 (88.62)
Middle/high =24 (12.56)	11 (45.83)	13 (54.16)
Decision maker		
Mother =30 (15.70)	2 (6.66)	28 (93.33)
Others = 161 (84.29)	33 (20.49)	128 (79.50)
Religion		
Hindu = 167 (87.43)	57 (34.13)	110 (65.86)
Non-Hindu = 24 (12.56)	9 (37.5)	15 (62.5)
No. of living children		
0 = none	0	none
1 = 17 (8.90)	5 (29.41)	12 (70.58)
2 = 24 (12.56)	9 (37.50)	15 (62.50)
>2 = 150 (78.53)	31 (20.66)	119 (79.33)

Figure in parenthesis indicate percentage

Table 4 gives the odds ratio and 95% confidence interval of all the demographic parameters which shows that previous girl child, literacy and socioeconomic factors play a very important role in determining whether families want to continue health care treatment.

Table 4: Significance of various parameters between neonates taken left against medical advice (LAMA) to those continued treatment

Parameters	LAMA	Continued treatment	OR (CI)*
Literacy			
Literate	132	429	5.14 (3.71-7.13)
Illiterate	59	986	
Previous girl child			
Yes	177	755	11.05 (6.35-19.23)
No	14	660	
Socioeconomic status			
Low	167	862	4.46 (2.87-6.94)
High/middle	24	553	
Decision maker			
Mother	30	393	0.48 (0.32-0.73)
Others	161	1022	
Religion			
Hindu	167	908	3.88 (2.50 - 6.04)
Non-Hindu	24	507	
Children			
One	17	356	0.29 (0.17 - 0.48)
>one	174	1059	

*Odds ratio (Confidence Interval)

DISCUSSION

Gender discrimination against females particularly, girl child has emerged as issue of vital concern in India, where sons are preferred over daughters for a number of economic, social and religious reasons, including financial support, old age security, property inheritance, dowry, death rituals, beliefs and faith about salvation^{5,6,7}. Gender inequalities prevail in work, education, allocation of food, health care and fertility choice⁸. Certain social trends have in fact made the situation worse, as borne out by the fact that the girl child is discriminated even before her birth in the form of foeticide and after birth in the form of infanticide, and other forms of violence and neglect.

Health care is a multi-dimensional activity related to child development. In health care, girls are frequently neglected during the care seeking process, and they experience relatively poorer nutrition, greater delays in receiving care, and lower access to preventive and curative care^{9,10-12}.

For the most part, researchers and bodies such as the United Nations and the Government of India have stated that this deliberate gender-based neglect, and other acts against girl children by their own families. This study projects

towards gender bias in delivering medical help to girl child especially in times like the neonatal period, when the body is susceptible to illness and consequences of late or inappropriate health services¹³⁻¹⁵.

We observed that families do not want to treat the girl child requiring NICU admission in spite of appropriate counseling by the psychologist of our institute. Various reasons were given by the relatives for denying medical treatment like financial issues, large families, multiple female siblings, improper support for the mother and patient being a girl child. The education of the mother, previous girl child and the socioeconomic status of the family played an important role. Many families agreed to give the child intensive care only till mother is admitted for post- partum care. And others left against medical advice when a longer duration of NICU stay was required. When a male neonate required a longer NICU stay the families agreed and financial arrangements were made by methods like taking loans or selling lands. But no such observations were made in case of a female neonate.

Various studies have been carried out pointing toward gender bias Indian society where discrimination is done on basis of health care facilities, education, immunization measures, nutrition and food. A study by Walia and Kumar found that the proportion of sick female and male newborn infants receiving any treatment was 28.8% and 63.1% respectively¹². In a study by Srivastav and Nayak states the bias towards male sex in hospitalizations and immunizations¹⁶. Hospital based studies documented by NNF in 2004 states that, for every two sick male newborn male infants using hospital care, there may be only one sick female counterpart brought for care¹⁴. A study carried out in rural Uttar Pradesh by Wills et al suggest that, during neonatal period, care seeking for girls is neglected compared to boys⁴. Similarly our study also points towards preference towards boys and discrimination towards the girls in such crucial period of life. Here in spite of our country progressing in various fields the cultural framework of male biased Indian society has not changed.

CONCLUSION

In our study we found a clear picture of male biased society in areas like health care in crucial

period of life like the neonatal period. It may be attributed to various factors but is more evident when the neonate is a girl child. The Government of India has taken many steps in preventing sex discriminations. But they are ineffectual at its best. Steps to overcome this problem may be achieved through education and exposure of the masses to consequences of declining sex ratios. Steps like rigorously enforce the existing laws and formation and implementation of a law against people declining health care services to girl child may improve the state of health care in India.

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