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Original Research Article

A Study on Newborn Care Practices in an Urban Area of West Bengal

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Abstract

Background: Essential newborn care and appropriate referral are major determinants of the survival and well-being of the newborns. This study was conducted to find the newborn care practices in an urban community and to explore the associated factors.

Methods: The present community based cross sectional study was conducted upon children born within past six months in the Tangra area of Kolkata. Mothers were interviewed using pretested proforma. The research was carried out between January 2024 to June 2024. The statistical data were analyzed using SPSS V.25.0 and Microsoft Excel.

Results: Mean age of the mothers was 27.4±3.2 years. Almost 112 (74.67%) mothers lived in joint families. Maximum mothers i.e. 112 (74.67%) were having >4 ANC visits, TT coverage was 138 (92%) and all deliveries were institutional delivery. About 98 (65.33%) newborn was cared by their mothers while rest were taken care of by the grandmother and father. Rooming in was well practiced by 142 (94.67%) mothers. Almost 122 (81.33%) children were kept warm by keeping them close to their mothers. 100% of children were given vaccine at birth and umbilical stump hygiene was maintained in 108 (72%) cases. Early initiation of breastfeeding was done in 84 (56%) newborns, colostrum was given to 78 (52%) children and exclusive breastfeeding was done in 72 (48%).

Conclusions: The methods used to care for newborns are far from optimal. Therefore, behavior change communication and other strategies should be used to encourage parents and others to exercise correct behavior.

Keywords: Cross Sectional Study, Newborn Care Practices, Urban Area.

Introduction

An estimated 1.3 billion babies are born worldwide each year, according to estimates. However, 4 million infants pass away in the first month of life. Approximately two thirds of newborn deaths are caused by neonatal death. Only by managing neonatal mortality can infant mortality be reduced. [1] This is important to ensure India's commitment to sustainable development goals.

Improper perinatal care leads to increased long term morbidity and mortality in infants and young children. Perinatal care is dependent upon cultures and beliefs, awareness of parents and accessibility to health care services. [2] The availability of qualified health personnel and institutional delivery are two more important factors that influence newborn health. Properly qualified personnel can accomplish birth readiness, appropriate breastfeeding advice, and counseling of moms for the care of the newborn. [3] This intervention has long term implications on infant health and survival. Numerous researchers have looked into this matter. While Dhillon et al and Sinha et al revealed that rates of optimum newborn care practices were relatively low in North India, Vijaylakshmi et al discovered that there was gender bias in new born care. [1,2,4] Dhir et al observed in Punjab that there were many gaps in newborn care. [3] Studies have not been conducted in this area to explore reasons for inadequate newborn care.

Over the past 40 years, newborn and under-five mortality rates have decreased globally, while high neonatal mortality rates have essentially stayed the same. Prematurity issues account for 28% of neonatal deaths, followed by sepsis and pneumonia

(26%), birth asphyxia and injuries (23%), tetanus (7%), congenital deformities (7%), and diarrhea (3%). Low birth rates are thought to be a major contributing factor to many of these deaths. Given the complexity of the issue of providing all newborns with high-quality care, the solution must also be multidimensional.

There is enough data to demonstrate that primary care can provide the majority of basic newborn care in a highly cost-effective way at the patient's home. The reasons behind neonatal death, the way delivery care is organized and provided, resuscitation, and poor. [5]

The present study was conducted with the objective to find the newborn care practices in an urban area of West Bengal to explore the associated factors.

Methodology

The present study was community based cross sectional in nature conducted in the Tangra, an urban area of Kolkata, West Bengal, India. The study was conducted between January 2024 to June 2024. Mothers of children within past six months were enrolled after applying inclusion and exclusion criteria. Mothers of children with known anomalies, whose child was very sick needing emergency care and who failed to provide consent for any reason were excluded from this study.

Mothers were interviewed using pretested proforma. Sample size was estimated to be 150 to provide coverage estimate at 95% confidence level and 8% error margin at 40% previous coverage level. Single-stage Random Sampling was used for selection of the mothers. The residents of the study area were assumed to be socio-economically homogeneous groups.

Statistical Analysis:

The data was tabulated in Microsoft Excel software and analysed with SPSS V.20 software. The findings were presented using a common statistical description. $P<0.05$ was taken into account when calculating significance. All subjects gave their informed consent after being fully informed about the procedure and all of its details. The research participants were able to terminate the study at any time, and confidentiality was upheld.

Results

Table 1: Distribution of mothers according to socio-demographic profile. (n=150)

Socio-demographic profile		Number	Frequency (%)
Type of family	Nuclear	38	25.33
	Joint	112	74.67
Education of mother	Illiterate	42	28.00
	Literate	18	12.00
	Primary	60	40.00
	Secondary	22	14.67
	Graduate and above	8	5.33
Occupation of mother	Housewife	98	65.33
	Daily Labourer	38	25.33
	Professional	14	9.33
Religion	Hindu	122	81.33
	Muslim	12	8.00
	Christian	16	10.67
Parity	<2	58	38.67
	>2	92	61.33
ANC	≥ 4 ANC visits	112	74.67
	< 4 ANC visits	38	25.33
TT	Yes	138	92.00
	No	12	8.00
Place of delivery	Institutional	150	100.00

Mean age of mother = 27.4±3.2 years

In the present study, a total of 150 mothers of children of born during the previous six months were interviewed. Mean age of the mothers was 27.4±3.2 years. Almost 112 (74.67%) mothers lived in joint families, 42 (28%) of mothers were illiterate, 60 (40%) were educated upto primary level, 98 (65.33%) were housewives and 38 (25.33%) were daily laborer. Maximum respondents were Hindus i.e. 122 (81.33%). Regarding the reproductive profile 58 (38.67%) had less than two children. Maximum mothers i.e. 112 (74.67%) were having >4 ANC visits, TT coverage was amongst 138 (92%) and all deliveries were institutional delivery. (Table 1)

Table 2: Distribution of mothers according to their newborn care practice. (n=150)

Newborncare practices	Value	Frequency		95% CI (%)
		No.	%	
Caretaker	Mother	98	65.33	78-88.2
	Grandmother	24	16.00	8.4-17.8
	Father	28	18.67	2.6-3.8
Rooming in	Yes	142	94.67	78.5-88.4
	No	8	5.33	0.9-3.8
Prevention of hypothermia	Yes	122	81.33	66.8-82.4
	No	28	18.67	14.8-28.4
Early bathing	Yes	88	58.67	52.8-72.4
	No	62	41.33	42.6-58.4
Vaccination at birth	Yes	150	100.00	88.4-92.6
	No	0	0.00	2.8-6.4
Colostrum given	Yes	78	52.00	28.2-42.6
	No	72	48.00	72.8-86.4
Early initiation of breastfeeding	Yes	84	56.00	28.6-52.8
	No	66	44.00	48.8-68.2
Exclusive breastfeeding	Yes	72	48.00	52.2-72.8
	No	78	52.00	32.3-57.5
Umbilical stump hygiene	Yes	108	72.00	52.7-72.5
	No	42	28.00	38.5-48.6

Table 2 shows different newborn care practices by respondents. About 98 (65.33%) children were cared by their mothers while rest were taken care of by the grandmother and fathers. Rooming in was well practiced by 142 (94.67%) and only 8 (5.33%) children were kept separate from their mothers due to maternal illness etc. Almost 122 (81.33%) children were kept warm by keeping them close to their mothers, covering them properly and keeping the room warm. Early bathing was avoided by 62 (41.33) mothers, 100% of children were given vaccine at birth and umbilical stump hygiene was maintained in 108 (72%) cases. Some mothers used to apply home remedies over umbilical stump. Early initiation of breastfeeding was done in 84 (56%) cases, colostrum was given to 78 (52%) children and exclusive breastfeeding was done in 72 (48%). Bottle feeding was also seen in ten children.

Discussion:

One of the major factors influencing a newborn's chance of survival is prenatal care. [6] Institutional delivery is crucial feature which helps in adequate prenatal care. A newborn is particularly susceptible to hypoglycemia and hypothermia. These issues can be avoided with easy steps like Kangaroo Mother Care and early breastfeeding beginning.

In the present study 112 (74.67%) mothers lived in joint families, 42 (28%) of mothers were illiterate, 60 (40%) were educated up to primary level, 98 (65.33%) were housewives and 38 (25.33%) were daily laborer. Maximum respondents were Hindus i.e. 122 (81.33%). Regarding the reproductive profile 58 (38.67%) had less than two children. Maximum mothers i.e. 112 (74.67%) were having >4 ANC visits, TT coverage was amongst 138 (92%) and all deliveries were institutional delivery.

NFHS-4 found institutional delivery rate to be 96% in this area. [7] Vijayalakshmi et al found that the maximum newborn belonged to Hindu families, 37.5% belongs to lower middle class and 71.3% mothers were educated up to 12th standard. 83.8% of mothers were housewives and 53.7% stay in nuclear families. 83.8% had less than two children. 94.1% were wrapped up immediately after birth, 14% children had application of some chemical over there umbilical stump, 70.6% newborns had their bathing delayed till third day. [2]

In the present study 98 (65.33%) children were cared by their mothers while rest were taken care of by the grandmother and fathers. Rooming in was well practiced by 142 (94.67%) and only 8 (5.33%) children were kept separate from their mothers due to maternal illness etc. Almost 122 (81.33%) children were kept warm by keeping them close to their mothers, covering them properly and keeping the room warm. Early bathing was avoided by 62 (41.33) mothers, 100% of children were given vaccine at birth and umbilical stump hygiene was maintained in 108 (72%) cases. Some mothers used to apply home remedies over umbilical stump. Early initiation of breastfeeding was done in 84 (56%) cases, colostrum was given to 78 (52%) children and exclusive breastfeeding was done in 72 (48%). Bottle feeding was also seen in ten children while other mothers giving top milk using spoon

Dhir et al. observed that 84% of children were cared for by their mothers, grandmothers, and fathers barely contributed at all. Rooming in was

common, with 86% of moms taking action to keep the infant warm. [3] According to Madhu et al., 97% of the moms started breastfeeding, 19% used pre-lacteal feedings, 90% of births took place in a hospital, and 50% of mothers who gave birth at home used a household knife to cut the umbilical chord. [8] In order to evaluate factors for giving birth at home as well as newborn care practices, Dhillon et al. conducted a study in rural India. They discovered that 77.3% of the newborns received their first bath within three hours of birth, and 93.3% of the babies received their first wash within 24 hours. Within an hour of giving birth, just 6.0% of moms were breastfeeding, and within 24 hours, 38.2%. [4] The respondents' sociodemographic profile matched that of previous research done in northern India. Studies have shown that rooming in was common and that mothers were typically the ones to take care of others. Health professionals need to address the widespread practice of early bathing because newborns in this region of the country are at danger of hypothermia during the cold winter months. Despite the high prevalence of TT vaccination among moms, poor hygiene has been linked to infections, and it has been observed that impoverished mothers have poor umbilical hygiene. Although nursing was customary, there is a need to investigate early beginning, colostrum administration, and exclusive breastfeeding. Effective implementation of community based programs and regular monitoring are vital to ensure that the targets of SDGs may be fulfilled in time and India's commitment towards this goal can be decisively shown. [9]

Conclusions

The current study found inadequate newborn care procedures. Local health professionals must be made aware of this problem, and it is crucial that community-based initiatives such as home-based newborn care.

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