



Original Research Article

## Knowledge & Practices of Newborn Care among Postnatal Mothers in Tertiary Care Hospital of Varanasi

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### ABSTRACT

**Background:** A human infant from the time of birth up to 28th day of life is called a newborn. Nearly 27 million babies are born in India each year. Every year 4 million babies die in the first month of life in the world and quarter of these takes place in India. Newborns most frequent caretaker is their own mothers and it is mothers knowledge and practices that shapes the future of the new born.

**Objective:** To assess the knowledge and practices of mother in relation to newborn care.

**Materials and methods:** This cross-sectional study was carried out from August 2014 to September 2014 at Sir Sunderlal Hospital BHU, Varanasi. A total of 87 postnatal mothers who were having the infants in the age group of 0-3 months and attending the out patients department for any reasons during the study period were included in the study. A semi structured, pre tested questionnaire was used. All participants were informed regarding the purpose of study and their consent was obtained for data collection.

**Results:** The data collected from 87 samples were analyzed using descriptive statistics. Only 26.4% of the deliveries took place at home and 52.2% were conducted by untrained birth attendant. 65.2% mothers initiated breast-feeding within 24 hrs of birth and 34.8% initiated after 1 day. 34.8% mothers had not given colostrums to their newborn, prohibition by family customs and elderly member was most common reason stated for this. The result of study showed that many harmful and un-indicated neonatal practices were prevalent in the community

**Conclusion:** Practices regarding newborn care were unsatisfactory and knowledge was incomplete among mothers and this should be promoted through improved coverage with existing health services.

**Keywords:** Home delivery; Danger Sign; Birth attendant; Newborns; Immunization.

### INTRODUCTION

Children are the future of any nation. The neonatal period is the most important part in the life of a newborn for its survival and development. There are various traditional and cultural practices followed which affect the newborn. A family which

mirrors values, traditions, customs and beliefs, i.e. culture of a society to which it belongs, plays an important role in physical, psychological, social development and health in children. [1] The Global burden of neonatal death is estimated to be 5.0 million of which 3.2 million deaths occur during the

first week of life. [2] In India, of the 26 million newborns each year, 1.2 million die in the neonatal period. The problem is more acute in rural areas. [3] Feeding of colostrums, timing of initiation and duration of breastfeeding, umbilical cord care, and measures taken to prevent hypothermia of the newborn are important factors in health and survival during the neonatal period. [4] Care of the children had always traditionally been the forte of mothers irrespective of education, income and social class differences. Few studies were found discussing other components of holistic infant care such as: sleeping, hygiene (washing and bathing), provision of warmth, close-bond relationships, care of the cord and eyes, protection from infection and calming of the infant. The World Health Organization guidelines for Essential Newborn Care comprises initiation of breathing, thermal protection, eye care, early & exclusively breast feeding, cleanliness, immunization, management of illnesses & care of low birth weight babies. [5]

Available researches suggest that that knowledge and practices of postnatal mothers towards neonatal care has lots of lacunae especially in those who belong to the lower socio-economic status. A descriptive study was conducted on "Knowledge, attitude and practice of neonatal care among 100 postnatal mothers in South India found that knowledge of mothers was inadequate in areas of umbilical cord care (35%), thermal care (76%) and vaccine preventable diseases. [6,7] Another descriptive correlational survey was conducted among 30 postnatal mothers revealed that 23 (76.7%) of mothers had good knowledge and only 7 (23.3%) had excellent knowledge. Regarding practices the data showed that 16 (53.33%) of mothers had excellent practice and 14(46.67%) had good practice on newborn care. [8] If the mothers are not equipped with sufficient

knowledge about newborn care such as dangers signs, hygienic practices, feeding, weaning, nutrition and using traditional child care practices may sometimes cause harm to their newborn and even cause handicaps in them. It is necessary to assess the knowledge of mothers who are going to take care of newborn babies.

## **MATERIALS AND METHODS**

This cross-sectional study has been carried out at the Sir Sunderlal Hospital BHU, Varanasi. The study was carried out from August 2014 to September 2014. A total of 87 postnatal mothers who were having the infants in the age group of 0-3 months and attending the out patients department of Paediatrics due to any reasons during the study period were included in the study.

A semi structured, and pre tested questionnaire was used for data collection. The major components of the questionnaire were divided into three parts: Part-I: Socio-demographic background of the study subjects. Part-II: Practice questionnaire on newborn care and Part-III: Knowledge questionnaire on newborn care. All participants were informed regarding the purpose of study and their consent was obtained for data collection. Each selected respondents was explained about the purpose and possible benefits of the study and assurance of the confidentiality. Written informed consent was obtained from each subject after an oral explanation of the study. The data was collected and recorded systematically of each subject and organized in a way that facilitates computer entry. Data was analyzed using SPSS v.16 (Trial). Appropriated statistical test were applied as needed. Percentage calculated with Confidence Interval.

## RESULTS AND FINDINGS

Table-1 shows that out of 87 lactating mothers, majority 48.2% were in the age group of 25-31 years. The majority 81.6% of the lactating mothers were from joint family, 96.5% were from Hindu family, and Cast wise distribution was 47.1% belonged to OBC, 36.8% belonged to

Unreserved and 16.1% belonged to SC/ST. Only 6.9% mothers were illiterate and 41.4% had Intermediate and above qualification. Majority of women 39.1% belonged to IV social class and 21.8% women belonged to III social class, only 1.1% belonged to I social class.

**Table-1: Socio Demographic Characteristics of Respondents (N=87)**

Variables	Category	Frequency (%)	95 % C.I.
Age	18-24	13 (14.9)	6.7-21.29
	25-31	42 (48.2)	37.50-58.49
	32-38	26 (29.8)	19.46-38.53
	39-45	6 (6.9)	1.57-12.22
Education	Illiterate	6 (6.9)	1.57-12.22
	Primary	21 (24.1)	15.02-32.97
	High school	24 (27.6)	17.67-36.32
	Intermediate & Above	36 (41.4)	25.91-46.08
Religion	Hindu	84 (96.5)	91.8-101.17
	Muslim	3 (3.5)	0.36-7.36
Caste	Unreserved	32 (36.8)	25.91-46.08
	Other Backward Caste	41 (47.1)	36.51-57.48
	Schedule Caste	11 (12.6)	5.17-18.82
	Schedule Tribe	3 (3.5)	0.36-7.36
Type of Family	Joint	71 (81.6)	72.75-89.24
	Nuclear	16 (18.4)	9.92-26.07
Socio Economic Status	I	1 (1.1)	0.10-3.29
	II	16 (18.4)	9.92-26.07
	III	19 (21.8)	12.44-29.55
	IV	34 (39.1)	28.75-39.24
	V	17 (19.6)	10.75-27.24

**Table-2: New Born Care Practices among Lactating Mothers**

Variables	Category	Frequency (%)
Place of Delivery	Home	23 (26.4)
	Institutional	64 (73.6)
Home deliveries conducted by (N=23)	Trained Attendant	7 (30.4)
	Untrained Attendant	12(52.2)
	Don't Know	4 (17.4)
Methods used to cut cord at home delivery (N=23)	New Blade	18 (78.3)
	Old blade/ Scissor, knife etc	2 (8.7)
	Don't know	3 (13.0)
Local application to the cord (N=23)	Provide Iodine	7 (30.4)
	Turmeric powder with oil or Ghee	13 (56.5)
	Cold cream	3 (13.1)
Hypothermia (N=23)	Washed with warm water & dried a clean cloth	19 (82.6)
	Not bathed and completely dried with clean cloth	4 (17.4)
Initiation of Breast Feeding (N=23)	Within 24 Hrs.	15 (65.2)
	After 1 Day	8 (34.8)
Reasons for delayed (N=8)	Traditional & Social customs	5 (62.5)
	Others	3 (37.5)

As depicted in table-2, 73.6% of mother underwent institutional delivery for their last pregnancy. Those who had home delivery, have their delivery conducted by untrained birth attendant in 52.2% of cases

The study findings show that Institutional deliveries were more common 73.6% as compared to home deliveries 26.4% and home deliveries conducted by untrained birth attendant 52.2% as compared

to by trained birth attendant 30.4%. A new saving blade was used to cut cord in 78.3% old blade; scissor and kitchen knife was used to cut cord in 8.7%. Turmeric powder with oil or ghee was applied to cut cord in 56.5%. Other applications like providing iodine 30.46% and cold cream 13.1% were also used after the cut cord. Practice about hypothermia and was asked in case of home deliveries. The majority of the newborns 82.6% were washed with warm water and dried up with a clean cloth immediately after birth, while only 17.4% of newborns were not given a bath and only dried up with a clean cloth.

In this study 65.2% of the mothers initiated breast feeding within 24 hrs. There

were 34.8% mothers who initiated after one day. Many reasons for late initiation breast feeding were given by mothers. There are many traditional and social beliefs of reasons to delayed breast feeding.

Knowledge of Danger signs of Newborn was assessed among mothers. 85.1% of mothers reported Vomiting as most important Danger signs of serious health problem in newborns. This is followed by convulsion (70.1%), loose stool or bloody stool (67.8%), Fast breathing (40.2%), Jaundice (37.9%). Only 17.2% and 16.1% identified irritability and abdominal distension as newborn danger signs respectively (Table 3).

**Table-3: Knowledge of Mothers Regarding Danger Signs**

Knowledge about Recognition of Danger Signs	Danger Signs	Yes (%)
	Looking very small	24 (27.5)
	Absence of sucking	20 (22.9)
	Jaundice	33 (37.9)
	Irritability	15 (17.2)
	Many loose or bloody stools	59 (67.8)
	Very cold or running temperatures	31 (35.6)
	Abdominal distension	14 (16.1)
	Fast or difficult breathing	35 (40.2)
	Vomiting	74 (85.1)
	Convulsion	61 (70.1)

## DISCUSSION

The national programmes on maternal and child health in India have come a long way in achieving almost 100% institutional deliveries [9] nevertheless, the awareness and knowledge among mothers regarding newborn care need to be enhanced in order to achieve better targets in infant and under-five mortality and morbidity.

This study shows that out of 87 mothers, majority 48.2 % were in the age group of 25-31 years, 41.4% of the participants were educated up to higher secondary or above. The level of education among women plays a major role in their understanding of the importance of correct ways of child rearing. This finding are very similar to study conducted by Castalino F et

al., where 46.7% of the participants were educated up to secondary level. [8] A Study conducted by Rama. R et al, [9] at Tamil Nadu revealed that 67% of the participants were educated up to secondary level of education. Another Study conducted by Shikha Devi showed that variables like age, education and income were found to be significantly related with knowledge of postnatal mothers none of the other variables were found significantly related with the knowledge of postnatal mothers. [10]

The findings of this study shows that institutional deliveries were more common 73.6 % as compared to home deliveries 26.4%. A cross- sectional descriptive study was conducted in an urban slum of Aligarh, reported that the majority of women 67%

preferred to have delivery at home. <sup>[11]</sup> During present study only 30% birth was assisted by a trained birth attendant, when compared to NFHS3 India where birth was assisted by a doctor/Nurse/ANM/others health personnel was 48.35 of deliveries. <sup>[12]</sup>

Another community based survey conducted by Rahi M, et al, in urban slum of Delhi. It was revealed that unsterile thread was used in 71.7% of home deliveries. Nothing was applied to the cord in 63% of home deliveries. <sup>[13]</sup> Findings were higher from the present study because only 87 respondents were interviewed in the study area. Turmeric powder with oil or ghee was applied to cut cord in 51.06%. Blade was the commonest (90.8%) cord cutting instruments. <sup>[14]</sup>

Hypothermia has been shown to be an important cause of neonatal morbidity in hospital Settings. These findings show that there was very less awareness in community regarding prevention of hypothermia. Wrapping of newborn immediately after birth is necessary for prevention of hypothermia which is one of the prime causes of neonatal deaths. <sup>[15]</sup> Steps to prevent hypothermia were Washed with warm water & dried with a clean cloth practiced by 82.6% of mothers. This result is very similar to study done at Bijapur Karnataka 83.8%. <sup>[16]</sup>

In this study 65.2% of the mothers initiated breast feeding within 1- 24 hrs, and 34.8% mothers who initiated breast feeding after one day. These findings are very similar to a study conducted among urban slums of Meerut reported that 68.78% of the mothers initiated breast feeding within 24 hrs, and 29.92% mothers initiated breast feeding after one day which is very similar to the present study. <sup>[17]</sup> Another study revealed that 64% of mothers initiated breastfeeding within 24 h of birth and 37.50% mothers who were given the breast

milk as the first feed which is also supported the present study. <sup>[18]</sup>

In our study many reasons for late initiation of breastfeeding were given by mothers. 62.5% reported that traditional and social customs are the major cause of late initiation of breastfeeding. Another study which is done at rural UP suggested that 40% of mothers who had not given the colostrums to their baby due to prohibited by family members and 20% mothers thought that it is harmful for the baby. 12% of mothers not given colostrums due to lack of knowledge and 68% of mothers not given colostrums due to prohibited by elderly female. <sup>[19]</sup> However findings from present study compare poorly with recent studies from Nepal and Pakistan which shows early breast-feeding initiation rates of 91 percent, 73 percent respectively <sup>[20,21]</sup> Such a practice, by delaying initiation of breastfeeding, may adversely affect establishment of lactation and introduce enteric infections if pre-lacteal feeds are not given in hygienic manner. <sup>[22]</sup>

This study has shown that very few mothers had adequate knowledge about danger signs. Among this, only 35.6% of the participants were aware that higher temperature and very cold to touch were key danger signs of a newborn. A study conducted by Rama R et al, in Tamil Nadu reported that about 33% of the participants had adequate knowledge on different important neonatal illness. Among these 55% of the participants were aware that fever and cold on touch were key danger signs of a newborn and most of them identified fever, respiratory and diarrhoeal diseases as the important diseases to be looked for getting treated. <sup>[1]</sup> In contrast, a study conducted in Mangalore found that (62%) of the mothers had good knowledge, 36% of the samples had average knowledge while 1% each of the samples had excellent

and poor knowledge respectively regarding the newborn illness. [23]

The knowledge is independent of educational status. So there is need to awareness programme to be implemented at antenatal period itself so that the newborn care can be improved.

## CONCLUSION

The study was conducted under certain objectives to assess the cultural practices and belief on newborn care among mothers and to associate with demographic variables.

In spite of the fact that most of the mothers were literate, harmful newborn care practices were common. Every society has its own traditional beliefs and practices related to newborn baby care. Maternal education and income status play an important role in their knowledge and practices regarding newborn care. Qualitative studies are required to understand the role of tradition, culture and explore the possibilities of intervention of programmes.

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