

## Original Research Article

# A study to assess the knowledge and practice of nursing staff posted in postnatal ward about immediate care of newborn and breast feeding in selected hospital of Bhopal district, Madhya Pradesh

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## ABSTRACT

**Background:** High rate of infancy deaths is largely attributed to very high share of neonatal deaths i.e 66% of infant deaths in 2007, in India. It can be largely attained by providing quality care to the newborn immediately after birth and Breast-feeding which is the standard way of feeding all infants. Objectives of the study were to assess the knowledge and practices of nurses regarding Immediate Care of Newborn and assess the knowledge of nurses of postnatal ward regarding Breast feeding.

**Methods:** This was a hospital based cross-sectional study carried out in selected hospital of Bhopal district. 32 nurses involved in the immediate care of the newborn were identified. Data was collected about Immediate Care of Newborn and breast feeding. Analysis was done using MS Excel and EpiInfo-7.

**Results:** 81.3% nurses knew how to prevent the new born from bleeding and 71.9% knew the correct dose of Vit K at birth. 78.1% put delivered baby on to mother's abdomen, 84.4% dried and covered the baby correctly, 90.6% tied cord correctly and 96.9 weighted the baby. 75% said initiation should be done within first hour of birth. 90.6% said feeding should be done for more than 8 times a day and 87.5% believed hand washing should be done before every feed. 59.4% said Pre-lacteal feeding should not be given, 87.5% adhered to colostrum feeding.

**Conclusions:** Nurses have knowledge about the immediate care of the newborn and breast feeding but there are some lacunas despite the continuous efforts of training. Much still needs to be done.

**Keywords:** Newborn care, Breast feeding, Nursing staff

## INTRODUCTION

High rate of infant deaths is largely attributed to very high share of neonatal deaths i.e 66% of infant deaths in 2007, in India. Accelerated reduction in the incidence of neonatal deaths alone can contribute substantially towards achieving Under 5 Mortality Rate (U5MR) and IMR targets of the Millennium Development Goals.<sup>1</sup> It can be largely attained by providing quality care to the

newborn immediately after birth and breast-feeding which is the standard way of feeding all infants.<sup>2</sup>

The immediate care of newborn shows how much a new life is important to the nation. WHO and UNICEF have come a long way in improving the health status of newborns by implementation of several programs and Government of India has put in its best efforts to imbibe the same. Despite this, the health status of the newborn is

affected due to prevalent customs and beliefs in our country. The health care providers should be well aware of guidelines regarding immediate newborn care

Also, according to NFHS survey only 23.5% of newborn babies were put on breast feeding within an hour of birth and 37% initiated breast feeding within one and 43% of 4 mothers had not given any pre lacteal feed.<sup>3</sup> The World Health Organization (WHO) recommends exclusive breastfeeding in the first six months and continuation of breastfeeding for 2 years and beyond.<sup>1</sup>

Breast feeding enhances sensory and cognitive development and is one the most cost effective ways to reduce infant morbidity and mortality from diarrheal disease, respiratory disease and other infections. Later in life, breast-feeding brings continuing benefits in terms of lower rates of obesity and reduced risk of chronic diseases.<sup>2</sup> Breast-feeding also offers health advantages for the breastfeeding mother, including an earlier return to pre-pregnancy weight, reduced risk of breast cancer and ovarian cancer and helps to space pregnancies.<sup>2</sup> There are also significant social, environmental and economic benefits. It is also an environmentally safe method of feeding. According to the WHO exclusive breastfeeding is recommended up to 6 months of age, with continued breastfeeding along with appropriate complementary foods up to two years of age or beyond.<sup>3</sup> Breast feeding should begin immediately after birth or within first hours after birth. Colostrum produced during the first few days is important as it contains higher concentration of carbohydrates, proteins and antibodies.<sup>4</sup>

The present study was planned to assess the knowledge and practice about the immediate care of the newborn and breast feeding practices amongst the nurses of selected hospitals of Bhopal district

### Objective

- To assess the knowledge and practices of nurses regarding immediate care of newborn.
- To assess the knowledge of nurses of postnatal ward regarding breast feeding.

### METHODS

This was a hospital based cross-sectional study carried out in selected hospital of Bhopal district including 1 tertiary care hospital, 1 district hospital, 1 civil hospital, 2 Community health center and 10 primary health center of the district from 1<sup>st</sup> Feb 2018 to 30<sup>th</sup> April 2018. After obtaining permission from the institutional ethics committee, a total of 32 nurses involved in the immediate care of the newborn were identified in the above places and the purpose of the study was explained to them and consent obtained. Those not willing to participate were excluded from the study. The participants were assured

about the confidentiality of participation. Data was collected using predesigned questionnaire administered to them consisting of questions on their knowledge about immediate care of newborn and breast feeding. After obtaining the data, they were explained about the right procedure of carrying out the newborn care and initiation of breast feeding. The collected data was entered in MS Excel and analyzed using EpiInfo-7. Descriptive analysis was done and frequencies, mean, standard deviation and proportions were calculated wherever appropriate.

The purpose of this study was to assess the knowledge of nurses regarding breast feeding and to identify what factors contribute to their level of knowledge. This study was carried out as an effort to reinforce the importance for nursing and to support the current nationwide emphasis on the promotion of breastfeeding and obvious benefits to mother and infant.

### RESULTS

Maternity nurses are in a unique position to assist mothers to initiate and maintain breastfeeding. Successful breastfeeding can be achieved and the promotion of breastfeeding can be enhanced were the nurse provides the mother with accurate information and reassurance. In the present study, 81.3% nurses knew how to prevent the new born from bleeding and 71.9 knew the correct dose of Vit K at birth. 37.5% believed that nothing should be put in eyes at birth and 53.1% said clean eyes with sterile gauze only. Majority of the participants were aware about the correct cord cutting (Table 1). When questioned about the practice, 78.1 put delivered baby on to mother's abdomen, 84.4% dried and covered the baby correctly, 68.8% assessed breathing and color, 59.4% delayed the cord cutting, 90.6% tied cord correctly and 96.9 weighted the baby (Table 2).

While assessing their knowledge about breast feeding, 75% said initiation should be done within first hour of birth followed by 18.8% who answered within 1-6 hrs. 90.6% said feeding should be done for more than 8 times a day and 87.5% believed hand washing should be done before every feed. When asked what should be done if Breast milk inadequate during the first few days after deliver, 81.3% said frequent feeding should be done while 15.6% thought it wise to give formula feed while awaiting breast milk. Correct duration of exclusive breast feeding was known to 84.4% nurses (Table 3).

They were also asked about the factors affecting exclusive breast feeding and 59.4% said Pre-lacteal feeding should not be given, 87.5% adhered to colostrum feeding. 78.1% knew about feeding should on demand and only 34.4% were aware about all factors influencing breast feeding though maximum respondents knew some factors (Table 4). 71.9% knew the correct feeding position and 78.1% were aware of the criteria for good attachment (Table 5).

**Table 1: Knowledge of health care providers about immediate postnatal care and Infection management of newborn baby in public health facilities.**

Knowledge about		Frequency (%)
Prevent newborn children from bleeding	Breastfeeding the child	21 (65.6)
	Not necessary to give any drugs	4 (12.5)
	Give Vitamin K	26 (81.3)
	I have no opinion	6 (18.8)
Dose of vitamin K to give to a term newborn baby	0.5 mg	23 (71.9)
	1 mg	7 (21.9)
	2 mg	0 (0)
	5 mg	0 (0)
	10 mg	0 (0)
	Don't Know/Other	2 (6.2)
Prevention of eye infections after delivery	Do not apply anything	12 (37.5)
	Apply breast milk in the babies' eyes	5 (15.6)
	Clean eyes with sterile gauze only	17 (53.1)
	Apply eye drops (silver nitrate) or TTC after cleaning eyes	23 (71.9)
	I have no opinion	2 (6.2)
	Other	1 (3.1)
Which care of the umbilical cord of newborn after delivery is important	Cut the cord with a clean instrument (for example, a razor, blade)	27 (84.4)
	Use any sharp instrument for cutting the cord	29 (90.6)
	After cutting the cord, apply traditional herbs/medicines	4 (12.5)
	Always put a bandage on the cord	1 (3.1)
	I have no opinion/Other	2 (6.2)

**Table 2: Practice of health care providers on Immediate newborn care in public health facilities.**

Practices of Health care providers on immediate newborn care	Frequency (%)
Deliver baby on to mother's abdomen	25 (78.1)
Dry baby with dry towel, wipe eyes, wrap and cover head	27 (84.4)
Assess breathing and color	22 (68.8)
If the baby breath normal, delay cord cutting 1–3 min	19 (59.4)
Tie the cord two fingers from abdomen and another tie two fingers from the 1st one, cut the cord between the 1st & 2nd tie	29 (90.6)
Place the baby with skin-to-skin contact and on the breast to initiate B/feeding	30 (93.8)
Apply chlorhexidine to cord after cord cutting	13 (40.6)
Apply Tetracycline eye ointment once	9 (28.1)
Give vitamin K IM on anterior mid- thigh	28 (87.5)
Weigh the baby	31 (96.9)

**Table 3: Knowledge of health care providers about breastfeeding of newborn baby in public health facilities.**

Knowledge of health care providers about-		Frequency (%)
Initiation of breastfeeding after birth	Within the first hour	24(75)
	1–6 h after birth	6(18.8)
	More than 12 h after birth	2(6.2)
	Other	0(0)
No. of breastfeed per 24 hours	Less than 8 times	3(9.4)
	8 times or more	29(90.6)
Hand washing before feed	Always	28(87.5)
	Sometimes	4(12.5)
Breast milk inadequate during the first few days after deliver	Give formula while waiting for breast milk	5(15.6)
	Breastfeed more frequently	26(81.3)
	Give rice water, herbal fluids or honey water	0(0)
	Advise the mother to ask someone else to breastfeed her baby	1 (3.1)

Continued.

Knowledge of health care providers about-		Frequency (%)
Period of exclusively breastfeed	2 months	1 (3.1)
	4 month	3 (9.4)
	6 months	27 (84.4)
	More than 6 months	1 (3.1)
	Other	0 (0)
After how long should a mother stop breastfeeding her child completely	6 months	0 (0)
	12 months	0 (0)
	18 months	2 (6.2)
	24 months	26 (81.3)
	More than 2 years	4 (12.5)
	I have no opinion	0 (0)

Table 4: Knowledge about factors influencing exclusive breast feeding.

Factors		Frequency (%)
Pre-lacteal feeding should not be given		19 (59.4)
Colostrum feeding should be done		28 (87.5)
Feeding on demand		25 (78.1)
Factor influencing Breast feeding	1.Nutrition	21 (65.6)
	2.Genetic factor	14 (43.8)
	3.Position of mother & newborn	29 (90.6)
	4.Privacy	19 (59.4)
	5. Attitude	13 (40.6)
	6.Emotional status	16 (50)
	7.All of the above	11 (34.4)

Table 5: Knowledge on correct feeding position and good attachment criteria.

Knowledge about	Frequency (%)
Correct feeding position	23 (71.9)
Good attachment criteria	25 (78.1)

## DISCUSSION

The purpose of this study was to assess the knowledge and practice of nursing staff about immediate care of newborn and breast feeding practices.

The quality of care that the newborn receives in the first few hours of life is very crucial as it determines the further growth and development of infant. Amongst the 32 participants of the study, 81.3% nurses knew how to prevent the new born from bleeding and 71.9 knew the correct dose of Vit K at birth. In a similar study conducted by Berhe et al in ethopia 2016, 38.9% knew prevention of bleeding and 47.9 knew the correct dose of Vit K.<sup>5</sup> The greater knowledge is due to government's continuous efforts of organizing trainings for the nurses about immediate care of the newborn.

In practice of immediate newborn care, 78.1 put delivered baby on to mother's abdomen, 84.4% dried and covered the baby correctly, 68.8% assessed breathing and color, 59.4% delayed the cord cutting, 90.6% tied cord correctly and 96.9 weighted the baby. The results of the

present study are similar to those of study conducted by Ayaisi et al in Uganda.<sup>6</sup>

In the present study, 75% participants were aware about the correct time of initiation of breast feeding and 84.4% knew the correct duration of exclusive breast feeding. As per WHO, all mothers should be supported to initiate breastfeeding as soon as possible after birth, within the first hour after delivery and the duration of Exclusive breast feeding is 6 months.

71.9% knew the correct feeding position and 78.1% were aware of the criteria for good attachment. This is similar to the findings of study conducted by Silvestre et al in which the knowledge about criterias ranged from 19.1-75.3%.<sup>7</sup>

In this study the nurses responded incorrectly to questions in a variety of knowledge areas including managing hypothermia, prevention of newborn hemorrhage, cord care in newborn care and also physiology, frequency of feeding, good attachment and correct positioning for exclusive breast feeding. This suggests that the nurses

have an overall lack of knowledge in spite of constant efforts of Government of India, WHO and UNICEF.

## CONCLUSION

The present study reveals that the nurses have knowledge about the immediate care of the newborn and breast feeding but there are some lacunas despite the continuous efforts of training. Much still needs to be done for the reinforcement of practice to knowledge about cord care, prevention from bleeding, eye care, prevention from hypothermia, practices related to delivery, assessment of newborn and early initiation of breast feeding and myths and beliefs related to it. Correct knowledge about breast feeding is the right of the mother and lack of adequate information being given to mothers is a major factor responsible for low rates of exclusive breastfeeding and early initiation of breast feeding.

## Recommendations

Study can be repeated in different regions of the state or nation so as to compare and generalize the results done on larger populations. Also, it is recommended to refresh in-service training of nurses on latest guidelines of immediate care of newborn and breast feeding practices

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