

## Knowledge and Newborn Feeding Pattern Assessment Regarding Breast Feeding among Postnatal Mothers: A Cross Sectional Descriptive Study

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### ABSTRACT

**Background:** Breastfeeding is the feeding of babies and young children with milk from a woman's breast. Breast milk is the best food for the baby and baby can successfully get adequate feeding when mothers can properly latch on their babies to breast which prevents all the nipple sores, crack nipples, painful feeding which is the major obstacle for successful breastfeeding.

**Objectives:** The current study was undertaken with objectives to assess the knowledge regarding breastfeeding and newborn feeding pattern among newborn babies of postnatal mothers in selected hospital Ambala, Haryana.

**Method:** Experimental research design with cross sectional descriptive study was adopted. The study participants comprised of 80 postnatal mothers were selected from rural Hospital of District. Ambala, Haryana by using purposive sampling technique. Data was collected from postnatal mothers through face-to-face interview by using structured knowledge questionnaire and modified newborn feeding pattern scale.

**Findings:** SPSS version 20 was used for statistical analysis. More than one third of postnatal mothers (42.5%) were in 23-27 years of age. Nearly half of postnatal mothers (47.5%) had education up to higher secondary. Less than two third (61.2%) of postnatal mothers had initiated of breastfeed within one hour. More than half (53.7%) of the postnatal mothers were having below average level of knowledge regarding breastfeeding. Less than half babies (47.5%) had inadequate feeding pattern.

**Conclusion:** The finding of the study revealed that the postnatal mothers were having below average knowledge regarding breast feeding and less than half of newborn babies had inadequate feeding pattern.

**Keywords:** Knowledge, Newborn Feeding Pattern, Breastfeeding, Postnatal mothers

### INTRODUCTION

Breastfeeding is the most natural way to feed the baby. <sup>[1]</sup> Breast milk is the best nutrient for the baby and is important for their growth and development of brain. <sup>[2]</sup> It provides all the nutrition given to baby needs during the first six months of life, satisfies their hunger and thirst at the same time. The first milk in breasts is called colostrum. <sup>[3]</sup>

World Health Organization (WHO) recommended that the breast feeding is a main source of food for babies for the first six months. <sup>[4]</sup> Estimated 820,000 children deaths under the age of five could be prevented globally every year with increased breastfeeding. <sup>[5]</sup> Only 45 per cent of newborns to breastfeed within the first hour of birth and only 2 in 5 infants less than six months of age are exclusively breastfed. <sup>[6]</sup> Effective breastfeeding is a function of the proper positioning of baby and mother. Positioning, good attachment and successful breastfeeding is the important for baby's body. The baby's positioning and attachment to the breast during breastfeeding are fundamental toward the occurrence of different sorts of nipple trauma. <sup>[7]</sup>

It is important for the baby to latch-on to the breast correctly during feeding so that it can suck effectively. Usually due to poor technique Lack of support results in problems of breastfeeding, sore or cracked nipples, breast engorgement. Poor technique may lead to breast engorgement. <sup>[8]</sup>

As per a survey conducted by the state government, overall only 10 per cent lactating mothers continue with the practice while only 18 out of 100 mothers breastfeed their newborn babies within an hour of the birth. More and more lactating mothers in Haryana are 'shying away' from breast-feeding their infants. The survey blames cultural barriers, social taboos, women going out to work in the fields and lack of proper support from health care system as reasons for the low breastfeeding rate. [9]

More than half (56%) of the mothers know about the colostrums and only thirty eight percent of postnatal mothers know that exclusive breastfeeding should be given for first six months. The knowledge about techniques and benefits of expressed breast milk was very low. Only thirty eight percent of postnatal mothers said that if newborn babies having diarrhoea then they do not to breastfeed. There is still need for program which support and encourage breast feeding particularly at a primary care level, less well-educated women, focusing more on younger and those from lower socio economic class. [10]

With this background study was carried out to assess the knowledge regarding breastfeeding and newborn feeding pattern among newborn babies of postnatal mothers in selected Hospital of rural Ambala Haryana.

## **MATERIALS AND METHODS**

Quantitative research approach with cross sectional descriptive study was used. Data was collected from 80 postnatal mothers through face-to-face interview by using structured knowledge questionnaire and modified newborn feeding pattern scale. Postnatal mothers were selected from selected rural Hospital of District Ambala, Haryana by purposive sampling technique. The study included primi postnatal mothers who had delivered newborn babies by vaginal delivery / caesarean delivery and newborn babies rooming-in from the first day of delivery. The primi postnatal mothers who were discharged before 5 day, who

were having mental impairment or in an unstable medical condition were excluded.

### **Validity and Reliability**

Content validity of the tools was established by submitted to nine experts. Seven experts included five experts from Obstetric and gynaecological nursing, two from child health nursing. Experts were requested to judge the items for clarity relevance, appropriateness, and meaningfulness for the purpose of the study. The English version of the tool was translated into Hindi language.

Reliability of the structured knowledge questionnaire and modified newborn feeding pattern scale was assessed through KR-20 and inter-rater (Cohen's kappa) method and it was found to be 0.7 and 0.87 respectively.

### **Ethical Consideration**

Ethical approval for the study was taken from the institutional ethical committee (IEC - 980) of Maharishi Markandeshwar (Deemed to be University) Mullana, Ambala, Haryana. The purpose for carrying out research project was explained to the study subjects and assurance for confidentiality was given. Written informed consent was taken from each subject after explaining the purpose of research project.

### **Data Collection Tools and techniques**

Sample characteristics were used to collect baseline data. Structured knowledge questionnaire which included concept of breastfeeding, exclusive breastfeeding, breastfeeding position and signs of attachment, burping, signs for adequate feed, breast engorgement etc. which are further categorized into four levels, very good (>75%), good (61-75%), average (50-60%), below average (<50%).

Modified newborn feeding pattern scale was used to assess the feeding pattern of newborn babies. Observational / interview scale was developed to assess the newborn feeding pattern. Standardized feeding pattern scale comprised of 5 items i.e. Latch, Audible swallowing, Types of nipple, Comfort breast/nipple, Hold and in standardized tool 3 items were added i.e.

Feeding, Nappies, Satiation. Newborn feeding pattern was observed and total score newborn feeding pattern was 16; score value ranged from 0 to 2. Score 'zero' mean "inadequate feeding pattern", 'one' mean moderately feeding pattern and 'two' mean "adequate feeding pattern. The newborn feeding pattern score was categorized into three levels, adequately (>75%), moderately adequate (50-75%), inadequate (<50%).

## RESULTS

### Sample Characteristics

Data were analyzed using SPSS-20. The study results showed that more than one third (42.5%) of post natal mothers were in 23-27 years of age. Nearly half (47.5%) of postnatal mothers had education up to higher secondary. Less than two third (61.2%) of postnatal mothers had caesarean delivery. Less than two third (63.7%) babies of postnatal mothers had gestation at age of 37-39 weeks. Nearly one third (35%) of postnatal mothers had received information regarding breastfeeding. Less than two third (61.2%) of postnatal mothers had initiated of breastfeed within one hour. All (100%) of

the postnatal mothers were ready to feed baby.

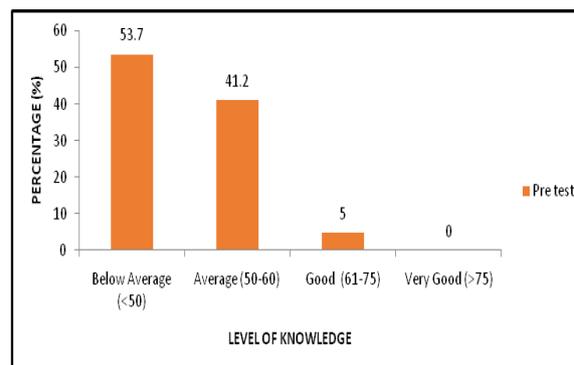


Figure 1: Percentage Distribution of Level of knowledge regarding Breastfeeding among Postnatal Mothers

Figure 1 shows the frequency of level of knowledge regarding breastfeeding among postnatal mothers. More than half (53.7%) of postnatal mothers were having below average of knowledge regarding breastfeeding followed by (41.2%) of the postnatal mothers were having average level of knowledge and only 4% were having good level of knowledge regarding breastfeeding.

Table 1 Item wise Frequency and Percentage Distribution of Knowledge among Postnatal Mothers regarding Breastfeeding.

N=80

S. No.	Items	Frequency(f)	Percentage(%)
1	Breastfeeding is the feeding of newborn baby with breast milk directly from women breast	48	60
2	Human milk is the best food for the newborn baby till 6 months	62	77.5
3	Colostrum is yellow, thick milk secreted during first week of life after delivery	45	56.25
4	Feeding from the other breast given after feed from one breast for the next feed.	49	61.25
5	Duration of breastfeeding at one time should be 10 to 20 minutes	44	55
6	Duration of neonatal feed every 2 hourly and on demand	34	42.5
7	Usual time interval between each feed is 2 to 3 hours	46	57.5
8	Mother hold the baby during feeding baby's body close to her body	40	50
9	Newborn baby should be exclusive breastfed at 6 months	37	46.25
10	Neonate urinates 6 to 8 times of the day normally	53	66.25
11	Burping should be done after breastfeed the baby	47	58.75
12	Mother should continue breastfeeding if the newborn baby falls sick	46	57.5
13	Diarrhoea and stomach problem occurs by giving water with milk	39	48.75
14	Breastfeeding mother is at low risk of getting breast carcinoma	14	17.5
15	If mother have cracked nipple apply her own milk on them	45	56.25
16	Benefits of massaging the breasts help in secretion of certain hormones which stimulate breasts and excrete milk	29	36.25
17	Adequacy of feeding can be checked by weight gained 10-15 gm/day of baby and sleeps 2-3 hours after feed	47	58.75
18	Burping is important after breastfeeding to prevent regurgitation	52	65
19	Benefits of breastfeeding to baby is lower risk of asthma and allergies	50	62.5
20	Breastfeeding can be initiated as soon as possible after caesarean section	48	60
21	Baby needs breastfeeding 8-12 times/on demand in a day.	42	52.5
22	Breast milk satisfies the thirst of newborn baby.	43	53.75
23	Increasing the production of milk is the effect of night feeding	41	51.25
24	Breast engorgement is the most common problems in breastfeeding mother.	38	47.5
25	Frequent breastfeeding can be prevented breast engorgement	36	45

Table 1 shows that majority (77.5%) of postnatal mothers knows that human milk is best food for newborn baby till 6 months whereas only 17.5% of postnatal mothers knows that breastfeeding reduces the risk of breast carcinoma.

Figure 2 less than one third 14(17.5%) of newborn babies had adequate feeding pattern and more than one third of 28(35%) newborn babies had moderate adequate feeding pattern and nearly half 38(47.5%) of newborn babies had inadequate feeding pattern.

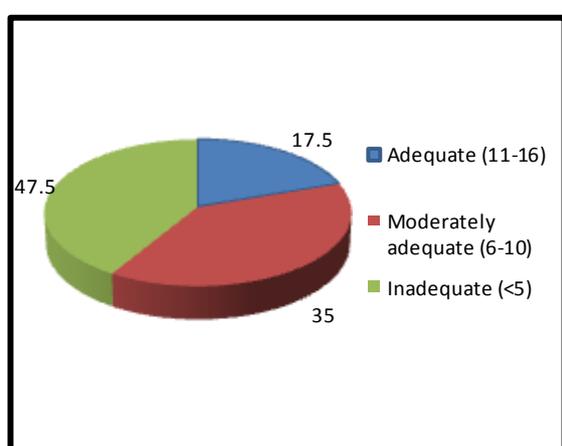


Figure 2: Percentage Distribution of Newborn Feeding Pattern among Newborn Babies of Postnatal Mothers

## DISCUSSION

The current study revealed that more than one third 42.5% of postnatal mothers were in 23-27 years of age which was consistent with the study conducted by Ms. Reena et al. (2015) [11] on effectiveness of lactational counselling which shows the similar findings that more than half ((52.0%) of postnatal mothers were in the age group of 23-27 years. Less than two third (61.2%) of postnatal mothers had caesarean delivery and also consistent with the study conducted by Thomas Sindhu et al. (2017) [13] which shows the similar findings that more than two third (67.5%) of postnatal mothers had caesarean delivery.

The current study revealed that more than half (53.7%) of postnatal mothers were having below average knowledge and less than half (41.2%) of postnatal mothers were having average level of knowledge

regarding breastfeeding and only 4% were having good level of knowledge regarding breastfeeding which was inconsistent with the study conducted by Seena Girish et al. (2015) [12] on effectiveness of knowledge, practice of primi postnatal mothers which shows the similar findings that more than half of postnatal mothers (52%) were having average knowledge of breastfeeding and 22% were having poor knowledge of breastfeeding.

The current study revealed that less than one third (17.5%) of newborn feeding pattern and more than one third (35%) had adequate feeding pattern and nearly half (47.5%) had inadequate feeding pattern which was consistent with the study conducted by Kristin E. Svensson et al. (2013) [14] on effectiveness of knowledge and practice regarding breastfeeding which shows the similar findings that more than one third (35%) of newborn babies had inadequate feeding pattern and more than one third (40%) had moderate adequate feeding pattern and less than one third (27.5%) had adequate feeding pattern.

## CONCLUSION

This study was concluded to assess the knowledge regarding breast feeding and newborn feeding pattern among newborn babies of postnatal mother. It was concluded that the postnatal mother were having below average knowledge regarding breastfeeding and less than half of newborn babies had inadequate feeding pattern.

## Recommendations

The researcher further recommended that the study can be replicated on larger sample to validate the findings and make generalizations, to assess and compare the prevalence, knowledge and practices regarding breastfeeding among rural and urban postnatal mothers, experimental study can be conducted to assess and evaluate the effectiveness of teaching bundle on breastfeeding in terms of knowledge and attitude.

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### Conflict of interest

The authors declare no conflict of interest.

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