

## Assessment of Knowledge Related to Breastfeeding, Practices Pertaining to Early Initiation of Breastfeeding and Effect of Counselling among Post-Natal Mothers Admitted in Two Hospitals of Jaipur City

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### ABSTRACT

World Health Organisation strongly advocates breastfeeding as the preferred feeding for all infants. Breast milk is known to be the complete food for the infants because it contains all the nutrients in the correct proportion. Therefore the present study was aimed to assess the knowledge of breastfeeding and practice of early initiation of breastfeeding, prelacteal feeding, colostrum feeding, frequency of breastfeeding in 24 hour of birth and the effect of counselling on the level of knowledge of post natal mothers admitted in two hospitals i.e. Deendayal hospital and Holy family hospital of Jaipur City, Rajasthan. A total of 42 mothers were interviewed during 03 march 2016 to 09 may 2016 through pre-structured questionnaire containing open as well as close ended questions. Pre-test and post-test was conducted to assess the gain in knowledge of mothers before and after counselling. Results of the study revealed that before counselling the overall knowledge mean score was found to be  $12.85 \pm 1.85$  out of 20. Whereas in the post-test, it increased upto  $18 \pm 1.81$ . Significant increase in mean score indicated gain in knowledge due to counselling. Results regarding practices of breastfeeding indicates that very few (11.90%) mothers breastfed their neonates within one hour after delivery. Majority of mothers (78.57%) gave pre lacteal feeds such as honey (42.85%), janam ghutti (9.52%), sugar water (4.76%) and infant formula (21.42%) to the neonates. Only 21.43% of mothers had given breast milk as first feed to the child. Half of mothers (47.61%) discarded colostrum while 52.38% mothers provide colostrum to their infants and 78.56% mothers breastfed their children 7-12 times in a day followed by 21.42% feeding less than 7 times in a day. Study concluded that the knowledge of mothers regarding breastfeeding was not adequate and that was reflected on their practices of breastfeeding. Majority of new borns were given prelacteal as a first feed, initiation of breastfeeding was done after 6 to 7 hours of delivery, almost half of mothers were discarding colostrum. A positive impact of counselling on breastfeeding knowledge was found.

**Key words:** Breastfeeding, Prelacteal feeding, Early initiation, Colostrum feeding

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## INTRODUCTION

Early and exclusive breast feeding is currently recognized as the foremost effective interventions for the survival of the children to handle morbidity and mortality associated with 3 major conditions i.e. infant infections, diarrhoea and respiratory illness<sup>1</sup>. Annually about 60% of the 10.9 million deaths of under five children in India occur due to malnutrition. Inappropriate breast feeding practices also affect the health of the children; the initiation of complimentary feeding is also not satisfactory, it begins too early or too late, and foods that is given to the child are often nutritionally inadequate and unsafe<sup>1</sup>. Breast feeding provides constant positive interactions between mother and child which can contribute to emotional and psychological development of infants<sup>2</sup>. Data from NFHS-4 (2015-16) reported that rate of early initiation of breastfeeding was 41.6%, only 54.9% children were exclusive breastfed, children 6-8 months receiving solid and semi solid food and breastmilk were 42.7%, breastfed children age 6-23 months received an adequate diet were only 8.7%, non breastfed children age 6-23 months received an adequate diet were only 14.3% and total children age 6-23 months received an adequate diet were only 9.6% in India<sup>3</sup>. In 2012 BPNI (Breast Feeding Promotion Network in India) also reported that early initiation of breastfeeding was only 40% and exclusive breastfeeding was 47%<sup>4</sup>. Over the period from 2005 to 2015-16, there has been slow increase in early initiation of breastfeeding i.e. only 18.2% and exclusive breastfeeding was increased only 8.5% and percentage of breastfed children age 6-23 months received solid or semi solid food and breast milk was increased 9.9% only, especially after launch and operationalization of NRHM<sup>3</sup>. In spite of high rate of institutional deliveries i.e. 79% reported in NFHS-4 data and baby friendly hospital initiative scheme, the data related to early initiation of breastfeeding and exclusive breastfeeding are not very encouraging. Only 40% of mothers have initiated breastfeeding within 1 hour of delivery and only 55% mothers have done exclusive breastfeeding till 6 months of infants age<sup>3</sup>. This indicates that Intervention programmes are required to counsel as well as encourage mothers for early initiation of breastfeeding and exclusive breastfeeding. Therefore present study was planned with following objectives:

- 1) To assess the knowledge related to breastfeeding in post natal mothers.
- 2) To assess the practice of early initiation of breastfeeding, prelacteal feeding, colostrum feeding and frequency of breastfeeding in 24 hour of birth.
- 3) Effect of counselling programme on the level of knowledge of post natal mothers.

## METHODS AND MATERIALS

The study was undertaken at Deendayal hospital and Holy family hospital of Jaipur City. Written permission was taken from the concerning officials to work in related hospitals. Forty two post-natal mothers who delivered healthy baby and were admitted in post-natal ward were selected for the study.

**Inclusion criteria:** Post natal mothers in the age group of 18-35 years, who were willing to participate in the study and available in the post natal ward during data collection were included in study.

**Exclusion criteria:** Mothers who had nipple problem or disorder, not willing to participate in the study and were not available during the data collection were excluded from the study.

**Assessment of knowledge:** A self-structured questionnaire was used for pretest and post-test to collect information on breastfeeding knowledge and practice of colostrum feeding, prelacteal feeding, early initiation of breast feeding, frequency of breastfeeding within 24 hours of delivery among post natal mothers. Questionnaires were filled using personal interview technique.

**Counselling to the mothers:** On the same day of pretest, counselling on various aspects of breastfeeding was also provided to mothers with the help of charts, posters, folder and IEC (information, education and communication) material procured from DWCD (Department of Women and Child Development). Counselling was done individually in a single session for forty five minutes to one hour.

**Post test:** On the next day of counselling assessment of knowledge through self-structured questionnaire was done to assess the impact of counselling on knowledge of post-natal mothers related to breast feeding.

**Statistical analysis:** Data was computed and analyzed. Means, standard deviation and percentages were calculated for univariate parameters. T test was applied to assess the

impact of counseling on knowledge of mothers regarding appropriate breast feeding.

**Table: 1 Demographic profile of the mothers (N= 42)**

Demographic Variables	Frequency	Percentage (%)
<b>Age</b>		
≤20 years	9	21.42
21-25 years	21	50
26-30 years	8	19.04
> 30 years	4	9.52
<b>Religion</b>		
Hindu	33	78.57
Muslim	9	21.42
<b>Caste</b>		
SC	1	2.30
ST	4	9.50
OBC	15	35.71
General	22	52.38
<b>Education</b>		
No formal education	6	14.28
Primary	2	4.76
Middle	8	19.04
High school	6	14.2
Higher secondary	20	47.61
<b>Type of family</b>		
Nuclear	7	16.66
Joint	20	47.62
Extended	15	35.71

## RESULTS AND DISCUSSION

The present study was designed to assess the knowledge related to breastfeeding and practice pertaining to early initiation of breastfeeding, prelacteal feeding, colostrum feeding and frequency of breastfeeding among post-natal mothers. Data on demographic profile showed that half of the respondents (50%) were in the age of 21 to 25 years. One fifth (21%) mothers were in the age group of 20 years or even less. Majority of samples 78.57% were from Hindu religion and from general category i.e. 52.38%. There were

47.61% mothers educated up to or more than higher secondary level and 47.62% mothers were from joint family.

### Knowledge related to breastfeeding in post-natal mothers

Results of knowledge related to breastfeeding in post-natal mothers are presented in Table 2. The table indicates that 92% mothers were aware of the fact that mother's milk is the most appropriate milk for infants. When knowledge regarding importance of colostrum feeding was assessed, 71% mothers correctly responded. Early initiation of breastfeeding i.e.

within one hour after delivery was known to only 19% mothers. Breast milk should be the first feed provided to infants after delivery was

known to 76% of mothers. The desired frequency of breastfeeding was known to only 26% mothers.

**Table 2: Knowledge related to breastfeeding in post-natal mothers (N=42)**

<b>Facts related to breastfeeding</b>	<b>Frequency</b>	<b>Percentage</b>
Mother's milk is the most appropriate milk for infant	39	92
Knowledge of importance of colostrum feeding	30	71
Knowledge of early initiation of breastfeeding	7	19
Knowledge about first feed to the child after birth	32	76
Knowledge about frequency of breastfeeding	11	26
Knowledge regarding exclusive breastfeeding	17	40
Knowledge of continued breastfeeding upto two years of age	21	50
Correct time for initiation of complementary feeding	24	57
Breast milk reduces the risk of child illness	40	95
Cleaning of nipple before breastfeeding	13	30
Withholding breastfeeding when mother is sick	35	83
Knowledge of feeding during night	39	93
Proper attachment technique during breastfeeding	10	24
Eye to eye, skin to skin contact during breastfeeding	30	71
Withholding breastfeeding when child is sick	27	64
Breastfeeding leads to lactation amenorrhea	18	43
What are the ways of breastfeeding for working mothers	18	43

As per IYCF (Infant and Young Child Feeding) guidelines exclusive breastfeeding should be done for first 6 month of age. In present study only 40% mothers were aware of this fact. Breastfeeding should be continue upto the age of 2 years was known to 50% of the mothers. Half of mothers (57%) agreed that complementary feeding should be initiated after 6 six months. Almost all mothers (95%) supported the fact that risk of child illness can be reduces by breast milk. Only 30% mothers were aware about the fact that nipple should be cleaned before breastfeeding. Eighty three percent mothers knew that breastfeeding should not be stopped when mother is sick and 64% knew that breastfeeding should not stopped when child is sick. Ninety three

percent mothers were aware of feeding during night. Proper attachment techniques from nipple to infant's mouth was known to very few mothers i.e. 24% and the percentage of the mothers aware about the benefits of eye to eye and skin to skin contact was 71%. Advantage of breastfeeding like lactational amenorrhea (temporary post-natal infertility that occurs when a women fully breastfeeding the child) was known to only 43% of mothers. Forty three percent mothers knew that breast milk can be expressed and feed to infants when mother is at work.

Assessment of practices of early initiation of breastfeeding, prelacteal feeding, colostrum feeding and frequency of feeding

**Table 3: Distribution of mothers according to early initiation of breast feeding, types of prelacteal feeds given, frequency of breastfeeding and colostrum feeding**

Variables	Frequency	Percentage
<b>Initiation of breast feeding (N=42)</b>		
After 1/2 -1 hour of birth	5	11.90
After 2 hours	14	33.33
After 8 hours	18	42.85
After 24 hours	5	11.90
<b>Prelacteal feeds</b>		
Yes	33	78.57
No	9	21.42
<b>Type of prelacteal feeds (N=33)</b>		
Janam ghutti	4	9.52
Honey	18	42.85
Sugar water	2	4.76
infant formula(milk powder)	9	21.42
<b>Frequency of breast feeding within first 24 hour of birth (N=42)</b>		
1-3 times	5	11.90
4-6 times	4	9.52
7-9 times	18	42.85
10-12 times	15	35.71
<b>Colostrum feeding (N=42)</b>		
Yes	22	52.38
No	20	47.61

**Early initiation of breastfeeding:** Timely initiation of breastfeeding i.e. within one hour after delivery was known to only 19% (7) mothers but only 11.90% mothers have actually initiated breastfeeding within one hour after delivery. Findings of NFHS-4 indicated that 28.4% children in Rajasthan were breastfed within one hour of the birth<sup>3</sup>. Early initiation of breastfeeding feeding was reported as 21.37% by Vyas et al<sup>5</sup>.

Results revealed that knowledge of mothers related to early initiation of breastfeeding was also inadequate and that was reflected in their very poor practice of early initiation of breast feeding. The reason behind delaying of early initiation of breastfeeding as reported by hospital staff was too many deliveries in a day which keeps doctors and nurses busy in attending the deliveries and related procedures. Breast crawling procedure was not followed. It was also observed that routine new-born care procedures that separate mother and baby such as bathing, weighing, immunizations and check-ups of new-borns takes almost 1 hour or more. This will leads to delay in initiation of breastfeeding. Therefore

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doctors and nursing staff should be motivated for the assurance of initiation of breast feeding as early as possible preferably within one hour of delivery.

**Prelacteal feeding:** The data on knowledge revealed that 76% of mothers knew that breast milk should be the first feed provided to infant but only 21% mothers gave breast milk as first feed to their infants. Majority (78.57%) of mothers gave pre-lacteal feed to the child such as honey (42.85%), janam ghutti (9.52%), sugar water (4.76%) and formula milk (21.42%). The reasons for giving prelacteal feeds as reported by mothers were nourishment, child was thirsty/hungry, crying and family tradition. Similarly Vyas et al<sup>5</sup> reported that 66.03% mothers of rural areas of Uttarakhand provided prelacteal feeds to their new borns<sup>5</sup>. The percentage of mothers attending Angan wadi centers of Jabalpur provided prelacteal feeds as honey and water was 48.33% as reported by Singh et al<sup>6</sup>.

**Frequency of breastfeeding:** It is recommended that the baby should be breastfeed on demand, 8-10 times in 24 hours. In spite of poor knowledge regarding the

correct frequency of feeding, 78.56% mothers were breast feeding 7-12 times in a day, while 21.42% were breastfeeding for less than 7 times in a day.

**Colostrum feeding:** The present study revealed that only half of mothers (52%) provide colostrum to their infants, while 48% discarded it. Results of knowledge regarding colostrum feeding revealed that 71% mothers knew that colostrum must be given to infants but only 52% mothers followed this practice. Remaining mothers not followed this practice

because of family tradition, not having the decision making power in the family and influence of the older ladies on their decision making of child feeding. Higher percentage of mothers providing colostrum to their infants was reported by Vyas *et al*<sup>5</sup> i.e. 87.18%<sup>5</sup> and 63.34% by Singh *et al*<sup>6</sup>.

#### Effect of counselling on the level of knowledge of post-natal mothers

The overall score of knowledge before counselling was  $12.85 \pm 1.84$  out of 20. Which increased to  $18.0 \pm 1.81$  after counselling.

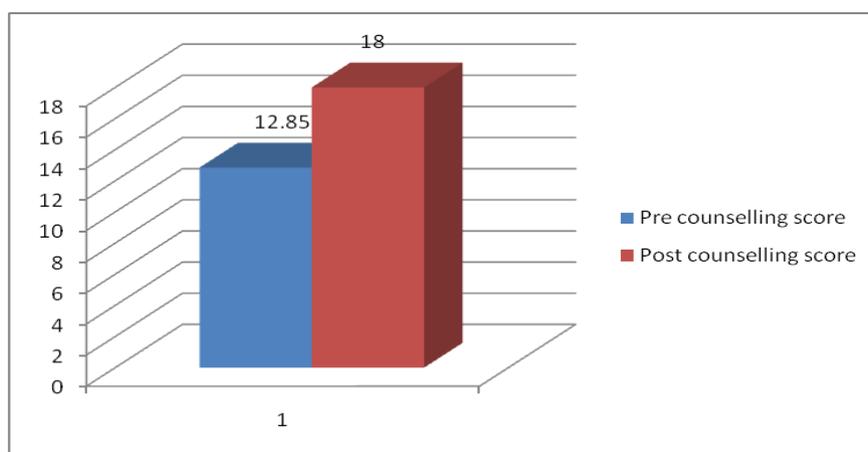


Fig. 1: Pre and post score of knowledge related to breastfeeding in post-natal mothers

Significant effect of counselling was observed on gain in knowledge related to breastfeeding. The results presented in Table 4 indicates that

the knowledge of mothers increased in various aspects of breastfeeding due to counselling.

Table 4: Effect of counselling on the level of knowledge of post-natal mothers (N=42)

Facts related to breastfeeding	Number	Percentage
Mother's milk is the most appropriate milk for infants	42	100
Knowledge of importance of colostrum feeding	37	88
Knowledge of early initiation of breastfeeding	40	95
Knowledge about first feed to the child after birth	39	93
Knowledge about frequency of breastfeeding	30	71
Knowledge regarding exclusive breastfeeding	27	64
Knowledge of continued breastfeeding upto two years of age	38	90
Correct time for initiation of complementary feeding	37	88
Breast milk reduces the risk of child illness	42	100
Cleaning of nipple before breastfeeding	42	100
Withholding breastfeeding when mother is sick	41	98
Knowledge of feeding during night	42	100
Proper attachment technique during breastfeeding	28	67
Eye to eye, skin to skin contact during breastfeeding	40	95.2
Withholding breastfeeding when child is sick	36	86
Breastfeeding leads to lactation amenorrhea	29	69
What are the ways of breastfeeding for working mothers	32	76

### CONCLUSION

The knowledge of the mothers related to breastfeeding was not adequate and that was reflected on their practices of breastfeeding also. In spite of institutional delivery only 11.9% mothers initiated breastfeeding within 1 hour of the child birth. Majority (78.57%) of newborn were given prelacteals as first feed in hospitals. Almost half of mothers (48%) have discarded colostrum. Counselling significantly improved the knowledge of the mothers on various aspects of breastfeeding, colostrum feeding, prelacteal feeding and frequency of breastfeeding. Looking at poor breastfeeding practices among mothers who had institutionalized delivery, there is need of counselling mothers which can be done during their antenatal check ups (ninth month). Counselling should also be given to doctors as well as nursing staff so that they can ensure early initiation of breast feeding. They can provide counselling related to appropriate infant feeding practices to mothers which in turn will improve the percentage of mothers adopting appropriate breast feeding practices.

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