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## **Knowledge, attitude and practice of mothers regarding early initiation of breast feeding in the obstetric wards of a tertiary care hospital of Rohtak city of India**

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### **Abstract**

Attitude of mother towards neonatal feeding is an important component in child health. Even after special efforts by the WHO, Govt. of India and various health agencies, breastfeeding rates in India tends to remain below satisfactory level. Multiple factors tend to affect breastfeeding rates. This study was aimed to assess the various maternal and neonatal factors affecting initiation of breastfeeding in the early neonatal period. The study was a cross sectional study done in postnatal wards of a tertiary care hospital in Rohtak city. A total of 139 mothers were interviewed during 02 Jan 2015 to 09 Jan 2015. Mothers were interviewed within 7 days of delivery. A pre designed questionnaire was used to collect data and EPI info software was used to analyse data. Commonest cause for delayed breastfeeding initiation included cesarean section and post natal fatigue. 40% of mothers were able to initiate breastfeed within 1hr. Incidence of breastfeeding within 1 hr. was highest in mothers having age 26yrs-30yrs, followed by 21yrs-25yrs and 30yrs and above. Early initiation of breastfeeding was highest during the morning shift of health care workers while it was lowest during night shift. Maternal health and education status, lack of information about advantages of breast feed and various other socio-economic factors played a key role in affecting the breast feeding practices

### **Introduction**

“Breastfeed is best feed for the infant” goes the old dictum. In spite of intensive efforts by the various governments, NGO's and who across the world, breastfeeding rates are still unsatisfactory especially in the developing world<sup>1-3</sup>. A major chunk of infant deaths is attributed to neonatal deaths. Reduction in neonatal deaths can significantly contribute to overall reduction in under-5 mortality rate. Breast feeding is the standard feed for neonates. It significantly effects the development of sensory and cognitive functions. Breast feeding alone for initial 6 months and supplemented thereafter is the most cost effective method for reducing infant deaths due to Diarrhea, ARI and other infectious agents. Good breastfeeding practices can save up to 2.5lac deaths annually occurring due to Diarrhea and ARI<sup>4</sup>. Breastfeeding also reduces the incidence and severity of various chronic ailments occurring later in life. Other benefits of breastfeeding include lower incidence of various cancers in mother, spacing and early gain of pre-pregnancy weight. Breastfeeding is also one of the safest methods of infant feeding and associated with other socio-economic benefits. In India malnutrition is one of the commonest problem being faced in the under 5 age group in majority of these cases breastfeeding practices are found to be sub-standard. About 2/3<sup>rd</sup> of under 5 Indian children are malnourished. A malnourished child is often susceptible to various infections and recovery is often delayed from illness thereby increasing mortality and morbidity.

The present study was done to gain knowledge, attitude and practices prevalent among the breast feeding mothers who had recently delivered and admitted in the postnatal ward of a tertiary level government hospital. This study aimed to look at the various aspects of the KAP prevalent among the mothers regarding breast feeding.

### **Methods**

The study was done as a cross-sectional study carried out from 02 Jan. 2015 to 09 Jan. 2015. Mothers were randomly selected from those fulfilling the inclusion criteria.

Study universe: The study was conducted in the postnatal wards of the obstetrics department of a tertiary level hospital.

Inclusion criteria: All the mothers who had recently delivered with the gestational age >34wks and clinically stable baby taking breastfeed and having birth weight >1.8kg were included in the study and randomly selected for the study.

### Results

In this study a total of 139 mothers were interviewed using a pre-designed questionnaire. In this study 47% of respondent mothers were primi. Majority of mothers (78%) were educated up to secondary level or higher. Mean gestational age was 37<sup>±2</sup>wks and mean birth weight was 2.34kg. 54% of the babies were male. Most of the mothers were of 21-25 years of age.

**Table-1:-**Profile of mother and baby

| Variable                    | No. of Lactating Mothers |
|-----------------------------|--------------------------|
| <b>Gravida</b>              |                          |
| <b>Primi</b>                | 65                       |
| <b>Non-Primi</b>            | 74                       |
| <b>Maternal Education</b>   |                          |
| <b>Illiterate</b>           | 8                        |
| <b>Primary</b>              | 23                       |
| <b>Secondary</b>            | 78                       |
| <b>Higher Secondary</b>     | 10                       |
| <b>Graduate and above</b>   | 20                       |
| <b>Maternal age</b>         |                          |
| <b>21-25yrs</b>             | 68                       |
| <b>26-30yrs</b>             | 43                       |
| <b>31-35yrs</b>             | 22                       |
| <b>&gt;35yrs</b>            | 06                       |
| <b>Sex of baby</b>          |                          |
| <b>Male</b>                 | 76                       |
| <b>Female</b>               | 63                       |
| <b>Mean gestational age</b> | 37+2wks                  |
| <b>Birth weight</b>         | 2.34kg                   |

**Table-2:-**Maternal factors affecting early Breastfeeding

| Variable                    | No. of Lactating Mothers(n=139) | Early breastfeed |
|-----------------------------|---------------------------------|------------------|
| <b>Gravida</b>              |                                 |                  |
| <b>Primi</b>                | 65                              | 34               |
| <b>Non-Primi</b>            | 74                              | 22               |
| <b>Maternal Education</b>   |                                 |                  |
| <b>Illiterate</b>           | 8                               | 3                |
| <b>Primary</b>              | 23                              | 12               |
| <b>Secondary</b>            | 78                              | 27               |
| <b>Higher Secondary</b>     | 20                              | 8                |
| <b>Graduate and above</b>   | 10                              | 6                |
| <b>Maternal age</b>         |                                 |                  |
| <b>21-25yrs</b>             | 68                              | 26               |
| <b>26-30yrs</b>             | 43                              | 22               |
| <b>31-35yrs</b>             | 22                              | 5                |
| <b>&gt;35yrs</b>            | 6                               | 3                |
| <b>Sex of baby</b>          |                                 |                  |
| <b>Male</b>                 | 76                              | 31               |
| <b>Female</b>               | 63                              | 25               |
| <b>Mean gestational age</b> | 37+2wks                         |                  |
| <b>Birth weight</b>         | 2.34kg                          |                  |

**Table 2** shows various maternal factors affecting early initiation of breastfeeding. 34 (52%) primi mothers initiated breastfeed within 1 hr. Mothers who were educated up to secondary or higher levels initiated early breastfeed in 38% of cases while mothers who were illiterate or educated below secondary initiated early breastfeed in 48% of cases. Among male babies 31(41%) had early breastfeed. Mothers belonging to 21-25 yrs. Age group initiated early breastfeed in 38% of cases while those in 26-30 yrs. Age group initiated in 51% of cases.

**Table 3:** Delivery details of mother

| Place of Delivery | No. of Lactating Mothers |
|-------------------|--------------------------|
| Home              | 05                       |
| Hospital          | 134                      |
| Type of Delivery  |                          |
| Vaginal           | 101                      |
| Cesarean          | 38                       |

96% of the deliveries were hospital deliveries and vaginal mode was commonest (73%) mode of delivery. 56(40%) neonates were breastfeed within 1 hr. 17(12%) neonates were put on breastfeed after 4hrs. of delivery.

**Table 4:** First time breast fed after birth

| First time fed | No. of |
|----------------|--------|
| <1hr.          | 56     |
| 1-4 hrs.       | 66     |
| >4hrs          | 17     |

47(34%) infants were given pre-lacteal feeds. 56(40%) infants received artificial feeds at least once. Among top feed cow milk (22, 39%) was the most preferred option.

**Table 5:** Practice regarding pre-lacteal and artificial feeds

| Feeds             | Yes | No |
|-------------------|-----|----|
| Pre-lacteal feeds | 47  | 92 |
| Artificial feeds  | 56  | 83 |

**Table 6:** Artificial feeding

| Type of feed | No. of Lactating Mothers |
|--------------|--------------------------|
| Cow s milk   | 22                       |
| Buffalo milk | 14                       |
| Toned milk   | 20                       |

Among housewives 38(44%) babies received early breastfeed while in working mothers 18(35%) babies received early breastfeed. 38% of mothers who were educated up to secondary or higher level initiated early breastfeeding while mothers educated below secondary level initiated early breastfeeding in almost 50% of cases. 43% of babies belonging to urban area received early breastfeed while in babies belonging to rural areas 37% received early breastfeed. Babies born in nuclear families were more likely (45%) to receive early breastfeed than those born in joint families (36%).

**Table 7:** Socio –economic profile of mother

| <b>Working status of Mother</b> | <b>No. of Lactating Mothers</b> | <b>Early breastfeeding</b> |
|---------------------------------|---------------------------------|----------------------------|
| <b>Housewife</b>                | 87                              | 38                         |
| <b>Working</b>                  | 52                              | 18                         |
| <b>Place of Residence</b>       |                                 |                            |
| <b>Urban</b>                    | 72                              | 31                         |
| <b>Rural</b>                    | 67                              | 25                         |
| <b>Type of Family</b>           |                                 |                            |
| <b>Nuclear</b>                  | 62                              | 28                         |
| <b>Joint</b>                    | 77                              | 28                         |
| <b>Religion</b>                 |                                 |                            |
| <b>Hindu</b>                    | 130                             | 53                         |
| <b>Others</b>                   | 09                              | 3                          |

72(52%) mothers followed fixed interval feeding schedule (2hrly.) followed by on-demand feeding (40, 29%).

**Table 8:** Number of times Breast fed/day

| <b>Timing of Breast feeding</b> | <b>No. of Lactating Mothers</b> |
|---------------------------------|---------------------------------|
| <b>On demand</b>                | 40                              |
| <b>fixed timing</b>             | 72                              |
| <b>semi demand</b>              | 27                              |

Babies born at >37 wks. Gestational age had higher chance (48%) of early breastfeeding initiation than those born at <37 wks. gestational age (33%).

**Table 9:** Gestational age and birth weight of Neonates

| <b>Gestational age(wks)</b> | <b>No. of Lactating</b> | <b>Early breastfeeding</b> |
|-----------------------------|-------------------------|----------------------------|
| <b>&gt;37</b>               | 68                      | 33                         |
| <b>34-37</b>                | 71                      | 23                         |
| <b>Birth Weight(kg.)</b>    |                         |                            |
| <b>&gt;2.5</b>              | 62                      | 31                         |
| <b>1.8-2.5</b>              | 77                      | 25                         |

Surgery (cesarean section) was the most common cause of delayed breastfeeding followed by the fatigue.

**Table 10:** Causes of delayed breast feeding

| <b>Cause of delayed breast feeding</b> | <b>No. of Lactating Mothers</b> |
|--|---------------------------------|
| <b>Surgery</b>                         | 36                              |
| <b>Fatigue</b>                         | 29                              |
| <b>Lack of knowledge</b>               | 15                              |
| <b>Unknown</b>                         | 03                              |

It was noticed that the babies born during the morning shift of health care workers had higher likelihood of early breastfeeding initiation (57%) followed by evening shift and the night shift.

**Table 11:** Correlation of health workers duty shift with early initiation of breast feed.

| <b>Timing of early initiation of breast feed during health workers duty shift</b> | <b>No. of Lactating Mothers (n=56)</b> |
|---|--|
| <b>Morning</b>  | 32                                     |
| <b>Evening</b>  | 18                                     |
| <b>Night</b>  | 6                                      |

An analysis of perception of mothers towards breastfeed showed that most of the mothers considered breastfeed as sufficient for initial months of infant's life. Majority of mothers felt that breastfeeding should be given as long as sufficient milk production is present.

### **Discussion**

It is generally accepted that breast feeding should be initiated within 1hr. of vaginal delivery and within 4hrs of cesarean section. Early initiation of breastfeeding offers ample advantages to the mother and the baby. Early rooming-in with the mother is recommended with delayed bathing etc. Despite the recommendations in developing countries only 39% of infants received early breastfeed while 37% of infants up to 6months received exclusive breastfeed. In our study we found that 40% of infants early breastfeeding within 1hr.. During our study we found that the staff was ill-informed about benefits of early breastfeeding and thus lacked motivation to ensure early breastfeeding initiation. Babies born during the morning shift were having higher early breastfeeding rates followed by those born during evening shifts. Higher education status of mother was not found to be associated with higher chances of early breastfeeding thereby negating the perception that educational status of mother might influence breastfeeding rates. There was no statistically significant difference between early breastfeeding initiations in babies belonging to urban or rural areas. Working status of mother also did not significantly impact the early breastfeeding practices. Most of the mothers followed fixed interval feeding schedule followed by on demand feeding. Babies born in nuclear family had higher rates of early breastfeeding which may be due to various social customs routinely followed in joint families delaying the early breastfeeding. Cesarean section was the commonest cause for delayed breastfeeding followed by the labor fatigue. In spite of stress on use of colostrum and early and exclusive breastfeed prelacteal feeds are still being given and top feed in form of cow/buffalo milk is still very much prevalent. Prelacteal feeds delays early breastfeeding.

### **Conclusion**

This study opines that the use of prelacteal feeds and top feeds should be discouraged by active engagement of health care staff with the lactating mothers. The health care staff involved in perinatal services should be regularly motivated to enhance their skills for early initiation of breast feeding. Lower socio-economic status doesn't suggest

lower incidence of early breastfeeding in this study. Studies shows that the early and exclusive breastfeeding for initial months plays a long term role in overall health status of human beings.

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