



FEEDING PRACTICES OF MOTHERS ON THE FIRST DAY OF DELIVERY AND IMPACT OF COUNSELING ON FEEDING PRACTICES IN NEONATAL PERIOD

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ABSTRACT

Background: Exclusive breast feeding (EBM) is considered the best feeding for infants for the first six months of life. However exclusive breast feeding is not practiced universally by a significant proportion of mothers.

Material and Methods: Ninety six mothers were enrolled for the study and were assessed for breast feeding practices on the day of birth. Impact of feeding counseling on feeding practices during the neonatal period was also assessed and recorded on a predesigned proforma.

Observations and Results: Out of 96 mothers, 66% (63) were feeding their babies exclusively on breast milk on the day of birth. After counseling, breast feeding improved significantly to 84% (81) at day 2. Breast feeding rate dropped to 78% (75) at day 7 of delivery. After further counseling through phone at day 7 of delivery, breast milk feeding rate again raised to 85% (82%) which was statistically significant.

Conclusions: Exclusive breast feeding is not practiced on the day of birth by a significant proportion of mothers. Breast feeding counseling has significant positive impact on exclusive breast feeding in the neonatal period.

KEYWORDS : Breast feeding, feeding practices, counseling, neonate

Introduction: It is estimated that nearly a million deaths under five years of age could be prevented by exclusive breast feeding globally¹. Even to achieve optimal growth, the World Health Organization (WHO) recommends exclusive breastfeeding (EBF) to infants for first 6 months of life.² Exclusive breast feeding rates remain, however, low throughout the world.³ Data from 66 countries covering 74% of world population revealed that the exclusive breast feeding in first months of age is below 50%.⁴ The most common reason for not putting babies on exclusive breast feeding is the mothers perception of not producing enough milk.^{5,6} This study was aimed to assess the impact of breast feeding counseling on exclusive breast feeding practice by mothers in neonatal period which is the most crucial period in a baby's life.

Material and methods: This observational cohort study was conducted at MCCH Anantnag which is a secondary level care centre for women and children in the state of Jammu and Kashmir, India. This study was conducted between May 2018 and August 2018. Study was commenced after taking written informed consent from subjects (mothers). A total of 96 mothers were enrolled on the day of delivery for the study. Feeding practices on the day of delivery (related to first feed) were assessed and recorded on a predesigned proforma. Exclusive breast feeding 'EBF' was defined as the child receiving only breast milk (including milk expressed or from a wet nurse) and no other type of milk or solids but could include vitamins, drops of other medicines and oral rehydration therapy (ORT). 'Partial breastfeeding' was defined as giving a baby some breastfeeds, and some artificial feeds, either milk or cereal, or other food. 'No breastfeeding' was defined as infants receiving no breast milk at all. Mothers were offered breast feeding counseling individually on the day of delivery (before and after) and were assessed for change in feeding practices at day 2 of delivery without offering additional breast feeding counseling on day 2. Mothers were assessed on day 7 of delivery again. This assessment was done through phone only for convenience. Mothers were again offered counseling on phone at day 7 during reassessment. Feeding practice was again assessed on day 28 of life through phone calling. All the findings were recorded and changes in feeding practices were compared for any significant change by applying statistical test as appropriate.

Observations and Results

Demographic and other baseline characters are shown in table 1. Feeding practices of mothers and impact of counseling on feeding practice are depicted in table 2.

Table 1 Demographic and other Baseline Characteristics of Mothers

Attribute		No of cases (%age)
Age	≤ 19 years	2 (2)
	20 to 30 years	56 (58)
	>30 years	38 (40)
Parity	Primipara	41 (43)
	Multipara	55 (57)
Residence	Rural	79 (82)
	Urban	17 (18)
Education qualification of mother	Illiterate	25 (26)
	< 8 th standard	11 (11)
	8 th to 12 th standard	52 (54)
Family nuclear/ joint	>12th standard	08 (8)
	Nuclear	19 (20)
	Joint	77 (18)
Socioeconomic status	Lower	23 (24)
	Lower middle	56 (58)
	Upper middle	16 (17)
	Upper	1 (1)
Widowed /Separated	Yes	7 (7)
	No	89 (93)
Birth order of the baby	First	41 (43)
	2 nd	46 (48)
	≥ 3	9 (9)
Gender of the baby	Male	56 (58)
	Female	40 (41)
Sex preference at the time of birth	Male	81 (84)
	Female	15 (16)
Planned pregnancy?	Yes	74 (77)
	No	22 (23)
Mode of delivery	Vaginal	50 (52)
	LSCS	46 (48)

Discussion:

A total of 96 women were enrolled for the study. Majority of the women was between 20 to 30 years of age (58%), multipara (57%) and from rural background (82%). Majority was of education qualification of less than 12th standard, from joint families with lower middle socioeconomic background and in active marriage. Out of 96 babies, as many as 58% were male and 81% mothers desired so before delivery (table 1).

First feed offered to 66% of babies was breast milk. In majority of cases (94%) feeding was started in first hour of life and in all within the first 4 hours. After breast feeding counseling as many as 84 percent women were feeding their babies on breast on second day of delivery. On day 7 of delivery, exclusive breast feeding rates fell to 78% and reached back to 85% on day 28th of delivery after mother were offered second round of counseling (table 2).

Table 2 Feeding practices of mothers and impact of counseling on feeding practice

Attribute		No of cases (%age)
Type of first feed	Breast feeding	63 (66)
	Infant formula	33 (34)
	Animal milk	0 (0)
Timing of first feed	Within 30 minutes	49 (51)
	Within first hour	41 (43)
	Within 4 hours	6 (6)
	After 4 hours	0 (0)
Type of feeds on the second day after feeding counseling and assistance	Breast feeding	81 (84)
	Formula/mixed feeding	15 (16)
	Animal milk	0 (0)
Type of feeds on the 7th day of life (on follow up)	Breast feeding	75 (78)
	Formula/ mixed feeding	21 (22)
	Animal milk	0 (0)
Type of feeds on the 28th day of life (on follow up)	Breast feeding	82 (85)
	Formula feeding	8 (8)
	Animal milk	6 (6)

In our study breast feeding counseling had significant effect on exclusive breast feeding on day 2 of delivery (81% v/s 63%; <0.05). However, exclusive breast feeding rate improvement fell back to non significant levels on day 7 of delivery (78% v/s 63%; p>0.05). After offering breast feeding counseling again on day 7 of delivery, exclusive breast feeding again improved significantly from the base line (85% v/s 63% ; p<0.05). Haroon S et al ⁷ in a systemic review observed that EBF rates appeared to increase as a result of breastfeeding promotion interventions by 43% at day 1, by 30% till 1 month, and by 90% from 1-5 months (low outcome-specific quality of evidence). Significant reduction in rates of no breastfeeding were observed for the same time intervals, i.e. by 32% at day 1, by 30% till 1 month, and by 18% from 1-5 months (low outcome-specific quality of evidence). Other researchers also reported significant changes in breast feeding rates after counseling, in their reviews.^{8,9}

In addition of having a smaller sample size, in our study counseling was done one to one and women were not counseled in groups. Group counseling has been found superior to individual counseling.⁷ Our study suggests that even individual counseling will be effective.

Initial counseling was a face to face interaction. Second round of counseling was on phone only. Data on day 7 and day 28 were collected on phone. As there was significant improvement in breast feeding on day 28 of delivery, counseling on phone also seems feasible and effective. Counseling on phone is convenient not only for researcher but for the subjects as well. There were no dropouts in our study, which suggests that the counseling on phone, when mother has already been discharged from the hospital, is feasible.

Conclusion: Exclusive breast feeding is not practiced on the day of birth by a significant proportion of mothers. Breast feeding counseling significantly improves exclusive breast feeding rates in neonatal period. It appears that breast feeding counseling through phone is feasible as well as effective.

REFERENCE:

1. Victoria CG, Bahl R, Barros AJ, France GV, Horton S, Krusevec J et al. Breast feeding in the 21st century : epidemiology, mechanisms, and lifelong effects. *Lancet* 2016;387: 475-90

2. WHO. Infant and young child feeding Fact sheet. WHO February 2018. Accessed on 31 July 2018.

3. Perez-Escamilla R. Breastfeeding in Africa and the Latin American and Caribbean region: the potential role of urbanization. *J Trop Pediatr* 1994;40(3):137-43. doi: 10.1093/tropej/40.3.137.

4. Cai X, Wardlaw T, Brown DW. Global trends in exclusive breastfeeding. *Int Breastfeed J* 2012;7:12

5. Vijayalakshmi P, Susheela T, Mythili D. Knowledge, attitudes, and breast feeding practices of postnatal mothers: A cross sectional survey. *Int J Health Sci* 2015; 9(4): 364-74

6. Mohd Ashraf Bhat , Showkat Hussain Tali , Gazi Shakeel Ahmad and Shagufta Yousuf. KAP (Knowledge, Attitude and Perception) study of breast feeding mothers of babies aged ≤ 6 months. *WJPLS* 2018; 4(6):116-18

7. Haroon S, Das JK, Rehana A Salam RA, Imdad A, Bhutta ZA. Breastfeeding promotion interventions and breastfeeding practices: a systematic review. *BMC Public Health* 2013; 13(3):S20. Published online 2013 Sep 17. doi: 10.1186/1471-2458-13-S3-S2

8. Imdad A, Yakoob MY, Bhutta ZA. Effect of breastfeeding promotion interventions on breastfeeding rates, with special focus on developing countries. *BMC Public Health*. 2011;11(Suppl 3):S24. doi: 10.1186/1471-2458-11-S3-S24. Epub 2011/04/29. doi: 10.1186/1471-2458-11-s3-s24.

9. Chapman DJ, Morel K, Anderson AK, Damio G, Perez-Escamilla R. Breastfeeding peer counseling: from efficacy through scale-up. *J Hum Lact* 2010;26(3):314-26. doi: 10.1177/0890334410369481