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Factors Associated with Short Duration of Breast Feed <5 Minutes among Term and Late Preterm Neonates

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Abstract

Breastfeeding should be given for 20 to 30 minutes per feed or more Breastfeeding sessions that are consistently shorter than about 10 minutes implies inadequate milk intake¹. In this study we would be eliciting the frequency of association of the factors causing short duration of breastfeed < 5 minutes in neonates on 48 hours of life and their association with latch score. To find out the frequency of association of the factors causing short duration breastfeeding less than 5 minutes in neonates on 48 hrsof life and to find out the association of the factors with the modified latch score. In this cross sectional study, a total of 75 term and late preterm newborns were present. Babies with short breast feeding sessions less than 5 min on 48 hrs of life were assessed and their modified latch score was also assessed on 48 hrs of life. Frequency, percentage distribution were used to test the frequency of the associated factors and chi-square test were used to find their association with modified latch score . LSCS (35.3%), primi(32%), low milk supply(30.7%), preterm(28%) and poor attachment method (22%) were most frequently associated with short duration of feed <5 min, Very poor latch score of 4-5 was associated with preterm(63.6%) and poor attachment method (27.3%). There was a significant difference (p value <0.05) among neonates with different latch scores based on LSCS , low milk supply, preterm and primi. Short duration of breast feeding <5 min could be prevented by proper Latch counseling and monitoring in the immediate postpartum and treatment of the underlying cause in the patients associated with these factors to prevent inadequate breast feeding and further weight loss.

INTRODUCTION

Breastfeeding should be given for 20 to 30 minutes per feed or more. Breastfeeding sessions that are consistently shorter than about 10 minutes implies inadequate milk intake^[1]. Short duration of breastfeed less than 5 minutes may be due to several factors. Factors associated with neonates include poor attachment with breast during feeding, preterm and sepsis. Maternal factors leading to short session of breast feeding less than 5 minutes include low milk supply, breast engorgement, caesarean section and primi mothers. Short duration of feed may lead to diarrhea with perianal excoriation, failure to thrive and colicky pain, known as foremilk syndrome, which occurs when the baby was only getting the dilute and lactose rich foremilk for 16 to 18 times a day, without ensuring hind milk rich in fat^[1]. All the factors which lead to short feed duration will have a low latch score, which again implies the inadequacy of breast feeding in neonates. In this study we would be eliciting the frequency of association of the factors causing short breastfeeding sessions less than 5 minutes in neonates on 48 hours of life and their association with latch score

Objectives:

- To find out the frequency of association of the factors causing short duration of breastfeeding < 5 minutes in term and late preterm neonates on 48 hrs of life
- To find out the association of the factors with the modified latch score

MATERIALS AND METHODS

In this cross sectional study, a total of 75 newborns, term and preterm neonates were recruited. IEC and informed consent from the mother were obtained. Babies with congenital abnormalities and comorbidities were excluded. Babies with short breast feeding sessions less than 5 min on 48 hours of life were assessed and their modified latch score was also assessed on 48 hours of life. Modified Latch score consists of assessment of 5 components – Latch, Type of nipple or Tucked to Areola feeding, Audible swallow/Assessment of milk transfer, Comfort and Hold with 2 scores for each component. A Score less than 8 is poor score^[1]. Then the frequency of association of the risk factors causing the short feeding session were analyzed. The modified latch score was divided into 3 categories-score 4-5, score 6, score 7. The association of the risk factors with the categories of the modified latch score were analyzed. Data was computed on Microsoft excel SPSS version 20.0. Frequency, percentage distribution were used to test the frequency of association and chi-square test were used for analysis.

RESULTS AND DISCUSSIONS

Total 75 newborns present in the study, 39 were male babies and 36 female babies.

The breastfeeding difficulties are screened through the Latch score. The majority of the neonates had the scores of 7 (46.7%) followed by score 6 (38.7%) and score 4-5 (14.7%). Chi-square test was used to find the association between the factors leading to short feed duration < 5 min and modified latch score.

There was a significant difference among neonates with different latch scores based on the Primi status ($P < 0.05$). I.e., the majority of the neonates with latch score of 7 are Primi (42.9%) followed by, 31% of neonates with latch score of 6 and none of the neonates with latch score 4-5.

There was a significant difference among the neonates with different latch scores based on the preterm status ($P < 0.05$). I.e., the majority of the neonates with latch score of 4-5 are preterm baby (63.6%) followed by, 24.1% of neonates with latch score of 6 and 20.0% of the neonates with latch score 7.

The chi-square test outcomes which reveals that there is no significant difference among the neonates with different latch scores based on the poor attachment proportions ($P > 0.05$).

There was a significant difference among neonates with different latch scores based on the low milk supply ($P < 0.05$). I.e., the majority of the neonates with latch score of 7 received low milk supply (42.9%) followed by, 27.6% of neonates with latch score of 6 and none of the neonates with latch score 4-5.

There was no significant difference among the neonates with different latch scores based on the incidence of sepsis ($P > 0.05$).

There is no significant difference among the neonates with different latch scores based on the breast engagement proportions ($P > 0.05$).

There was a significant difference among neonates with different latch scores based on the LSCS ($P < 0.05$). Good attachment to the breast by the baby is ensured by the signs as baby's chin close to the breast, baby's tongue under the lactiferous sinus and nipple against the palate, baby's mouth wide open and lower lip turned outwards, more areola visible above baby's mouth and baby's cheeks are full. Poor attachment leads to reduced sucking, nipple damage and low milk supply. In Sepsis baby will become lethargic and sucking difficulty will be present. Preterm babies have poor sucking and reduced emptying which in turn causes low milk supply^[3]. Breast engorgement causes nipple to flatten, making it difficult for the baby to suckle, which further leads to inadequate emptying, decreased production of milk and emptying^[1]. Anxiety in mothers reduces the letdown reflex, inadequate food intake in mother, formula feeding, breast and nipple problems, poor latching and sucking may all lead

Table 1: Percentage distribution of factors associated with short feeding duration <5 minutes

Variable	Percent (n=75)
Primi	32.0
Preterm	28.0
Poor attachment	22.0
Low milk supply	30.7
Sepsis	16.0
Breast engorgement	4.0
LSCS	35.3

Table 2: Percentage distribution of modified latch score

Modified Latchscore	Percent (n=75)
4-5	14.7
6	38.7
7	46.7
Total	100.0

Table 3: Association between latch score and Primi

	Primi		Total	P-value
	No	Yes		
4-5	100.0%	0.0%	11 (100.0%)	0.006**
6	69.0%	31.0%	29 (100.0%)	
7	57.1%	42.9%	35 (100.0%)	

Table 4: Association between latch score and Preterm

	Preterm		Total	P-value
	No	Yes		
4-5	36.4%	63.6%	11 (100.0%)	0.024**
6	75.9%	24.1%	29 (100.0%)	
7	80.0%	20.0%	35 (100.0%)	

Table 5: Association between latch score and poor attachment

	Poor attachment		Total	P-value
	No	Yes		
4-5	72.7%	27.3%	11 (100.0%)	0.582
6	86.2%	13.8%	29 (100.0%)	
7	85.7%	14.3%	35 (100.0%)	

Table 6: Association between latch score and low milk supply

	Low milk supply		Total	P-value
	No	Yes		
4-5	100.0%	0.0%	11 (100.0%)	0.005**
6	72.4%	27.6%	29 (100.0%)	
7	57.1%	42.9%	35 (100.0%)	

Table 7: Association between latch score and Sepsis

	Sepsis		Total	P-value
	No	Yes		
4-5	90.9%	9.1%	11 (100.0%)	0.621
6	86.2%	13.8%	29 (100.0%)	
7	80.0%	20.0%	35 (100.0%)	

Table 8: Association between latch score and breast engorgement

	Breast engorgement		Total	P-value
	No	Yes		
4-5	100.0%	0.0%	11 (100.0%)	0.460
6	93.1%	6.9%	29 (100.0%)	
7	97.1%	2.9%	35 (100.0%)	

Table 9: Association between latch score and LSCS

	LSCS		Total	P-value
	No	Yes		
4-5	90.9%	9.1%	11 (100.0%)	0.036*
6	55.2%	44.8%	29 (100.0%)	
7	51.4%	48.6%	35 (100.0%)	

to low milk supply^[2]. In this study, LSCS(35.3%),primi(32%), low milk supply(30.7%), preterm(28%)and poor attachment method (22%) were more frequently associated with short duration

of feed <5 min,while sepsis (16%)and breast engorgement (4%) were less commonly associated. Modified Latch Score of 7 was associated with LSCS (48.6%), Low milk supply(42.9%), Primi (42.9%), Sepsis (20%), Preterm (20%). Poor score of 6 was associated with LSCS(44.8%), Primi (31%), Low milk supply (27.6%), Very poor Latch score of 4-5 was associated with preterm(63.6%) and poor attachment method (27.3%). Preterm (24.1%), Poor attachment(13.8%) and Sepsis (13.8%)..There was a significant difference (p value <0.05) among neonates with different latch scores based on LSCS , low milk supply, preterm and primi.

CONCLUSION

Modified Latch score of less than 8 indicates inadequate breast feeding. Short duration of breast feed <5minutes could be prevented by proper Latch counseling for mothers and monitoring in immediate post partum and treatment of the underlying cause associated with these factors, to prevent inadequate breast feeding and further weight loss.

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