



RESEARCH ARTICLE

TO STUDY THE DETERMINANTS, KNOWLEDGE AND ATTITUDE OF INITIATION OF BREAST-FEEDING PRACTICES AMONGST MOTHERS DELIVERED AT OUR TERTIARY CARE CENTRE

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Abstract

Breastfeeding is one of the most effective ways to ensure child health and survival. However, contrary to WHO recommendations, fewer than half of infants under 6 months old are exclusively breastfed.¹ Breastmilk is the ideal food for infants. It is safe, clean and contains antibodies which help protect against many common childhood illnesses. Breastmilk provides all the energy and nutrients that the infant needs for the first months of life, and it continues to provide up to half or more of a child's nutritional needs during the second half of the first year, and up to one third during the second year of life.¹ Early breastfeeding is defined as the initiation of breastfeeding within 24 hours of birth. While the benefits of breastfeeding have been known for decades, only recently has the role of time to initiation of breastfeeding in neonatal mortality and morbidity been assessed.

Objective: To review the evidence for early breastfeeding initiation practices and to estimate the association between timing and neonatal outcomes.

Results: The mean age was 35 years and mean time to initiate breast feeds was 1 hour. Significantly more time for initiation of breast feeding was seen with Pre term VD and LSCS breech. . No significant difference in the mean time based on the gravida. Hence as the complications increase in severity, the mean time for initiation of breast feeding also increases. The questionnaire was prepared for knowledge, attitude and breast feeding practices in post natal care unit in our Sassoon General Hospital, Pune.

Conclusion: We evaluated the knowledge of 300 mothers in Post natal care unit ward about breast feeding basics. This study demonstrates that early breastfeeding initiation is a simple intervention that has the potential to significantly improve neonatal outcomes and should be universally recommended. The mechanism by which early initiation of breastfeeding reduces neonatal deaths is unclear, although the most likely pathway is by decreasing severe illnesses leading to sepsis. This study explores the effect of breastfeeding initiation time on early newborn danger signs and severe illness.

Introduction:-

Factors found to influence infant feeding practices are type of delivery, parity, pregnancy induced hypertension, gestational diabetes mellitus, occupation, education, and breast problems.

Adequate nutrition during infancy and early childhood is essential to ensure the growth, health, and development of children to their full potential. It has been recognized worldwide that breastfeeding is beneficial for both the mother and child, as breast milk is considered the best source of nutrition for an infant. Several studies have shown that mothers find it difficult to meet personal goals and to adhere to the expert recommendations for continued and exclusive breastfeeding despite increased rate of initiation.³

WHO and UNICEF recommend:^{1,2}

1. Early initiation of breastfeeding within 1 hour of birth
2. Exclusive breastfeeding for the first 6 months of life
3. Introduction of nutritionally-adequate and safe complementary (solid) foods at 6 months together with continued breastfeeding up to 2 years of age or beyond.

Implementation of the "Ten Steps to Successful Breastfeeding" specified in the Baby-Friendly Hospital Initiative, including:

1. Skin-to-skin contact between mother and baby immediately after birth and initiation of breastfeeding within the first hour of life
2. Breastfeeding on demand (that is, as often as the child wants, day and night)
3. Rooming-in (allowing mothers and infants to remain together 24 hours a day)
4. Not giving babies additional food or drink, even water, unless medically necessary.¹

According to the American Academy of Pediatrics (AAP) Policy Statement on Breastfeeding, women who don't have health problems should exclusively breastfeed their infants for at least the first 6 months after birth.²

Early initiation of breastfeeding, within one hour of birth, protects the newborn from acquiring infection and reduces newborn mortality. It facilitates emotional bonding of the mother and the baby and has a positive impact on duration of exclusive breastfeeding. Predictor demographic variables included age, education, and occupation of the mother, socioeconomic status, religion, caste stratification, type of family, birth order, gender, birth weight, gestational age, mode of delivery and place of delivery of the infant. Variables related to breastfeeding practices included the time of initiation of breastfeeding, colostrum feeding, pre-lacteal feeding, self-reported breastfeeding problems, and knowledge of the recommended duration of exclusive breastfeeding.⁴

The key strategies to support breastfeeding are captured in the World Health Organization's Ten Steps to Successful Breastfeeding which includes hospital policies and key clinical practices for breastfeeding.¹

Table 1: WHO/UNICEF 10 Steps to Successful Breastfeeding:

1. Have a written breastfeeding policy that is routinely communicated to all health care staff.
2. Train all health care staff in skills necessary to implement this policy.
3. Inform all pregnant women about the benefits and management of breastfeeding.
4. Help mothers initiate breastfeeding within one hour of birth.
5. Show mothers how to breastfeed, and how to maintain lactation even if they should be separated from their infants.
6. Give newborn infants no food or drink other than breast milk, unless medically indicated.
7. Practice rooming in (allow mothers and infants to remain together) 24 hours a day.
8. Encourage breastfeeding on demand.
9. Give no artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants.¹
10. Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic and support during prenatal care, the birth hospitalization, and beyond.

Materials and Methods: We examined associations between timing of breastfeeding initiation, including knowledge, awareness and attitude of mothers as a large cohort. This cross-sectional survey was conducted from April 2023 to

June 2023, after obtaining permission of the Institutional Ethics Committee at BJ Medical College and Sassoon General Hospital, Pune. A predesigned questionnaire was formatted and results were enrolled in excel sheet. Results were formulated by statistician based upon the given information.

Exclusive breastfeeding for the first months of life is one such intervention, which has been recommended in view of established benefits of reducing the risks of morbidity and mortality in the first 6 months of life.^{6,7}

Discussion:-

Breastfeeding pattern was determined by the reported type of breastfeeding in the 24 h period preceding the interview. Exclusive breastfeeding meant that infants had received only breastmilk from their mother, or a wet nurse, or expressed breastmilk, and had not received any other liquids or solids with the exception of drops or syrups consisting of vitamins, mineral supplements, or medicines. Providing breastmilk to the newborn babies, if they do not have access to their mother's own milk due to reasons such as mother's sickness, separation, or temporary lactation issues, is a challenge. We restricted the examination of the association of early initiation of breastfeeding with infant deaths to 6 months of age because this is the period when there is the highest plausibility of timing of initiation affecting mortality. The secondary objectives were to examine associations between breastfeeding patterns and mortality, and between breastfeeding initiation and breastfeeding patterns.

Even a greater number of children are affected by serious consequences of prematurity, intrauterine growth retardation, and sepsis during the neonatal period, manifesting as poor physical and cognitive development and long-term effects on human capital.⁸ However, it has not been elucidated whether the benefits of early initiation are only mediated through increased exclusive breastfeeding, or are also through independent mechanisms such as earlier and more frequent exposure to colostrum, improved thermal status conferred through contact with the mother, strengthened gastrointestinal status.^{9,10,11}

Results:-

The data collected was evaluated by SPSS software to validate the results. The inference was tabulated as below.

Mean age of mothers in the PNC ward: -25.28±4.81

Mean time of breast feeding= 351.9± 747.09

Table:- Distribution based on Gravida and type of delivery:

33333	Type of Delivery									
GRAVIDA	FT LSCS	LSCS	LSCS breech	LSCS MSL	NVD	Preterm VD	PRO M LSCS	PT LSCS	PT VD	Total
Primi	6(5.13 %)	48(41.03 %)	0(0%)	3(2.56 %)	54(46.15 %)	3(2.56 %)	0(0%)	3(2.56 %)	0(0%)	117(39 %)
G2	6(6.45 %)	33(35.48 %)	3(3.23 %)	0(0%)	51(54.84 %)	0(0%)	0(0%)	0(0%)	0(0%)	93(31%)
G3	3(5.26 %)	15(26.23 %)	0(0%)	0(0%)	33(57.89 %)	0(0%)	3(5.26 %)	3(5.26 %)	0(0%)	57(19%)
G4	0(0%)	15(45.45 %)	0(0%)	0(0%)	12(36.36 %)	0(0%)	0(0%)	3(9.09 %)	3(9.09 %)	33(11%)
TOTAL	15(5%)	111(37%)	3(1%)	3(1%)	150(50%)	3(1%)	3(1%)	9(3%)	3(1%)	300(100%)

Chi square=22.92, df=24, p=0.24. No significant association.

Table:- Categorization of breast feeding time:

CATEGORIES OF BREAST FEEDING TIMING	Frequency	Percent
< 1 hour	78	26.00%
1-3 hours	114	38.00%
3-6 hours	72	24.00%
12-24 hours	15	5.00%
48 hours	21	7.00%

Total	300	100.00%
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Table:- Association of type of delivery and mean breast feeding initiation time:

Delivery type	Mean time in minutes	Std Dev
FT LSCS	62	53.10
LSCS	463.24	833.61
LSCS breech	2880	NaN
LSCS MSL	720	NaN
NVD	105.50	88.10
Preterm VD	2880	NaN
PROM LSCS	45	NaN
PT LSCS	1960	1593.48
PT VD	60	NaN

ANOVA, p- value= 0.000. Significantly more time for initiation of breast feeding was seen with Pre term VD and LSCS breech. Hence as the complications increase in severity, the mean time for initiation of breast feeding also increases.

Table:- Association of Gravida and mean breast feeding initiation time:

Gravida	Mean	Std Dev
Primi	385	787.37
G2	328.71	727.06
G3	180.26	315.17
G4	596.36	1130.31

ANOVA p value-0.521. No significant difference in the mean time based on the gravida

Table:- Association between gravida and time of breast feed initiation:

GRAVIDA	< 1 hour	12-24 hours	1-3 hours	3-6 hours	48 hours	Total
Primi	30(25.64%)	9(7.69%)	45(38.46%)	24(20.51%)	9(7.69%)	117(39%)
G2	30 (32.26%)	3(3.23%)	24(25.81%)	30(32.26%)	6(6.45%)	93(31%)
G3	12(21.05%)	3(5.26%)	30(52.63%)	12(21.05%)	0(0%)	57(19%)
G4	6(18.18%)	0(0%)	15(45.45%)	6(18.18%)	6(18.18%)	33(11%)
TOTAL	78(26%)	15(5%)	114(38%)	72(24%)	21(7%)	300(100%)

Chi-Squared=9.30 df=12 p=0.67, Not significant.

Table:- Association between type of delivery and time of breast feed initiation:

TYPE OF DELIVERY	< 1 hour	12-24 hours	1-3 hours	3-6 hours	48 hours	Total
FT LSCS	9(60%)	0(0%)	6(40%)	0(0%)	0(0%)	15(5%)
LSCS	18(16.22%)	12(10.81%)	48(43.24%)	24(21.62%)	9(8.11%)	93(37%)
LSCS breech	0(0%)	0(0%)	0(0%)	0(0%)	3(100%)	3(1%)
LSCS MSL	00(0%)	3(100%)	0(0%)	0(0%)	0(0%)	3(1%)
NVD	48(32%)	00(0%)	54(36%)	48(32%)	00(0%)	150(50%)
Preterm VD	0(0%)	0(0%)	0(0%)	0(0%)	3(100%)	3(1%)
PROM LSCS	3(100%)	0(0%)	0(0%)	0(0%)	0(0%)	3(1%)
PT LSCS	0(0%)	0(0%)	3(33.33%)	00(0%)	6(66.67%)	9(3%)
PT VD	0(0%)	0(0%)	3(100%)	0(0%)	0(0%)	3(1%)
TOTAL	78(26%)	15(5%)	114(38%)	72(24%)	21(7%)	300(100%)

Chi square=83.36, df=12, p=0.1, Not significant.

Conclusion:-

A generalized linear regression model was constructed to evaluate the impact of feeding era on total costs, controlling for neonatal and sociodemographic risk factors and morbidities. An incremental cost-effectiveness ratio was calculated for each morbidity that differed significantly between feeding eras. Our findings emphasise the crucial importance of prioritizing the promotion of early breastfeeding initiation both to mothers and to the health workers who assist and support them. Although this promotion is already part of WHO recommendations for

newborn care, it is not a universal practice with only half of newborn babies in the world being breastfed in the first hour of life. Second, our findings strengthen the scientific basis for including early initiation in addition to exclusive breastfeeding in models that estimate survival benefits of scaling up key interventions to end preventable child deaths.

Conflict of Interest:

None.

Funding policy:

None.

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