



EFFECTIVENESS OF GUIDED IMAGERY IN INCREASING BREAST MILK PRODUCTION AMONG MOTHERS OF NEWBORN ADMITTED IN NICU

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KEYWORDS :

INTRODUCTION

Breast feeding is considered a preferred method of newborn feeding by health care professionals. Breast milk helps to protect newborns from infection, respiratory disease, allergy ear infections and helps indigestion. It contains fat that helps in brain development. Breast milk can be provided to the infant either directly through infant suckling at the breast (breastfeeding) or by having the mother express the breast milk with a pump and providing the milk via enteral feedings or bottle. Breastfeeding is recommended as the optimal form of nutrition for newborns. There are several advantages to breastfeeding, including the psychological benefits of maternal-baby bonding, gastrointestinal trophic aspects and anti-infective benefits for the newborn. When direct breastfeeding is not possible, the use of expressed mother's milk, fortified when necessary, is recommended to achieve the high nutrient demands of the newborns. Early, frequent, and effective breastfeeding or pumping appears to be the most important factor in establishing normal lactation. Prolactin bursts associated with the infant suckling or the mother breast pumping support the continued growth of secretory tissue in the maternal breast for several weeks or months after birth. If the mother's body is not requested to make and maintain a certain amount of milk from the infant's birth, it will not be available when the infant is ready to consume a larger volume. That is why it is especially important for mothers of the tiniest infants to start pumping soon after delivery. Research has shown the importance of establishing a full milk volume by day 10-14 postpartum in order to have sufficient breast milk throughout hospitalization and for breastfeeding to continue after the infant is discharged. However, mothers who wish to express milk for their hospitalized premature newborns are faced with numerous stressful situations and this will affect on mother's milk production.

AIM

To evaluate the effectiveness of guided imagery in increasing breast milk production among mothers of newborn admitted in NICU.

MATERIALS AND METHODS

The target population is defined as the entire aggregate of cases that meets designated set of criteria. The target population of the present study includes all mothers of Newborn admitted in NICU. In the present study Population includes mothers of newborns admitted in NICU in a selected hospital at Trivandrum district. The sample consists of a sub set of a population selected to participate in research study. The sample for the present study consisted of 30 mothers of Newborn admitted in NICU from a selected hospital. Inclusion criteria: Primi parous mothers, Mothers who were having <14.8ml of milk in a single expression. Exclusion criteria: Mothers who were taking any drugs to increase breast milk production, Mothers who were sick or having any illness. Demographic variables of mothers of newborn admitted in NICU and breast milk were collected using a standardized measurement bottle at different intervals.

RESULTS

Among 30 mothers of newborn admitted in NICU 19(64%) of

mothers were in the age group 29-39,10(33%) were in the age group 20-29 and 1(3%) were in the age group >39 years. 15(50%) of the mothers education was up to graduate and 14(47%) of the mothers were up to higher secondary and 1(3%) of the mothers were post graduate. 21(70%) of the mothers were un employed, 7(24%) of mothers were private employs, 1(3%) of mothers were government employs 1(3%) of mothers belongs to employed group. (50%) of mothers monthly income of family is Rs < 10000, 14(47%) of mothers monthly income of family between Rs 10,001 - 15000, 1(3%) of mothers monthly income of family is between Rs 15001-20,000. 24(80%) of mothers belongs to nuclear family and 6(2 joint family and none belongs to extended family. 24(80%) of mothers were undergone caesarean delivery and, 6(20%) of mothers were undergone normal vaginal delivery and none belongs to assisted vaginal delivery. 20(66%) of mothers were non vegetarian and, 5(17%) of mothers were vegetarian and 5 (17%) were eggitarian. 17(57%) mothers had milk production less than 12.5 ml and 13(43%) of mothers having milk production greater than 12.5ml. Mean posttest score of breast milk production is significantly higher than the mean pretest score ($P < 0.05$) among the mothers of newborn admitted in NICU. The paired comparison between pretest and posttest1 showed that the difference is statistically significant at 0.05 level ($P < 0.05$). A similar result were observed for the difference between pretest and posttest 2, pretest and posttest3 at 0.05 level of significance ($p < 0.05$). The paired analysis between posttest 1 and posttest 2, posttest 1 and posttest 3, posttest 2 and posttest 3 were also significant ($p < 0.05$). Which shows guided imagery was effective in increasing breast milk production among mothers of newborn admitted in NICU. There is a significant association between the breast milk production and selected demographic variables among mothers of newborn admitted in NICU. The association between breast milk production and selected demographic variables among mothers of newborn admitted in NICU regarding age $p = .44$ ($P > 0.05$) education $p = .13$ ($P > 0.05$) occupation $p = .69$ ($P > 0.05$) Monthly income of family $p = .13$ ($P > .05$) Type of family $p = .67$ ($P > 0.05$) Type of delivery $p = 1$ ($P > 0.05$). This shows there is no significant association between breast milk production and the selected demographic variables among mothers of newborn admitted in NICU.

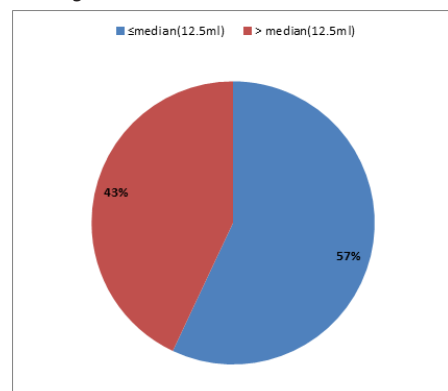


Figure 1 Frequency and percentage distribution of pretest breast milk

Table 1 Mean, Standard Deviation and F value of pretest and posttest

Stage	Mean	S.D	F-Value	P value
Pretest	12.4	1.7	354.66	<0.0001
Pretest 1	13.5	1.6		
Pretest 2	14.5	1.6		
Pretest 3	15.7	1.7		

Table 2 Post-hoc analysis table for paired comparisons of the breast milk

Paired Comparison	Mean Difference	P value
Pre & post 1	1.1	<0.0001
Pre & post2	2.1	<0.0001
Pre & post3	3.3	<0.0001
Post 1 & post 2	1	<0.0001
Post 1 & post 3	2.2	<0.0001
Post 2 & post 3	1.2	<0.0001

DISCUSSION

First-time moms who are older than 30, overweight or have breastfeeding difficulties on their newborn's first day may have increased odds of a delay in their full breast-milk production. This also says that Age appeared to be a factor, as 58% of women age 30 and older had a delay in their breast milk coming in, versus 39 % of younger women. The data also supported by another study which used multiple linear regressions to identify milk supply perception and explained 23.1% of total variance among participants. Women who undergone caesarian earned relatively lower perceived milk supply scores.¹¹ Assessment of breast milk production among mothers of newborn admitted in NICU was assessed by using frequency and percentage. The result showed that among 30 mothers of newborn admitted in NICU (57%) mothers having milk production less than 12.5 ml and about (43%) of mothers having milk production greater than 12.5ml.From these findings the investigator found that majority of the mothers of newborn admitted in NICU is having decreased milk production. The data was supported by a prospective study, in that the breast milk production of NICU mothers was investigated .In that Thirty-four NICU mothers were evaluated. Volume of infant milk intake and breast pumping, and milk production during the first week and first month of lactation was estimated. The majority of the women produced 50% or less of the milk necessary to sustain normal infant growth in the first week postpartum. 61% percent of the women followed were unable to produce a full milk supply within the first month. Women at high risk for primary lactation insufficiency can be identified prenatally or in the immediate postpartum period. They need close monitoring to ensure that the infant receives adequate nutrition and to encourage optimal milk production.¹² Breastfeeding is an important part of the occupation of mothering. However, mothers of infants admitted into the neonatal intensive care unit (NICU) are not able to function in the traditional role of mother. They are usually separated from their infants and the role of caregiver shifts to health care professionals. In addition, many infants may be attached to life-saving or monitoring equipment, which can be intimidating for new parents. This environment presents significant barriers to the provision of breast milk, including the fragility of the infant, the separation of the infant from the mother.¹³ The majority of the women produced 50% or less of the milk necessary to sustain normal infant growth in the first week postpartum. 61%of the women followed were unable to produce a full milk supply within the first month. Women at high risk for primary lactation insufficiency can be identified prenatally or in the immediate postpartum period. They need close monitoring to ensure that the infant receives adequate nutrition and to encourage optimal milk production.¹⁴Inadequate breast feeding contributes significantly to the high prevalence of malnutrition. Mother's perception of not having enough milk is the commonest cause of discontinuation of breastfeeding. This perception often leads to infrequent suckling, leading to a true reduction in production of breast milk.¹⁵

CONCLUSION

Hospitalization of neonates in the Neonatal Intensive Care Unit (NICU) is associated with disruption of constant contact between the mother and infant, poor demand for feeding, decreased arousal of the neonate and lack of family support. Breastfeeding mothers face numerous physical, emotional and logistical obstacles to breastfeeding and even small anxieties about milk supply can lead to lactation failure. There is a paucity of data on frequency and outcome of perceived breast milk insufficiency in mothers of hospitalized neonates. This prompted the investigator to undertake the present study with the objective of evaluating the effectiveness of guided imagery in increasing breast milk production among mothers of newborn admitted in NICU. During the study, the investigator found that the mothers were interested in listening the guided imagery. The study showed that there was a significant increase in milk production after visualizing the guided imagery.

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