

Effect of Lactation Intervention on Weight Gain of Babies and Maternal Satisfaction among Mothers with Breast Feeding Problems at Kovai Medical Center and Hospital, Coimbatore, Tamil Nadu, India

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Abstract

Breast feeding (BF) is a problem for both mother and her baby if it is not initiated in time will lead to lactation failure. Hence it is important that every professional and the family members need to support BF, otherwise lactation failure will be the end result and threat to infant survival. An average of 341 mothers per year according to hospital based observation are in need of lactation intervention including Position (P), Attachment (A), Suckling(S), and Swallowing (S). Successful lactation is based on a good start. *Objectives:* The aim of our work is to solve the breast feeding problems, improve weight in babies with poor weight gain, and to ensure maternal confidence in breast feeding and infant satiety. *Methods:* Variables studied were, lactation intervention, weight gain of babies, maternal satisfaction and infant satiety. The study was conducted among both inborn and referral 30 mothers baby-dyad, during the year 2012, as one group pre & post test with individual lactation intervention. Observation checklist on BF problems, Hill and Humenick lactation scale was used to evaluate the maternal satisfaction and infant satiety. Before and after intervention the babies weight were checked using calibrated Electronic weighing scale. *Results:* Lactation problem before intervention, the mean score was (17.43), after intervention, the mean score was two (2) significant at $p < 0.01$. Babies weight gain mean score pre (3.176) and post (3.539) significant at $p < 0.01$. Maternal satisfaction: before intervention the mean score was (47.13), after intervention, the mean score was (59.13) significant at $p < 0.01$. Infant satiety: pre test mean (15.7), posttest mean (20.10) significant at $p < 0.01$. *Conclusion:* Our results ensure that the lactation intervention improves weight in babies and enhances maternal confidence and satisfaction of breast feeding and also resolves BF problems which is the hindrance to effective lactation process.

Keywords: Breast Feeding (BF); Maternal; BF Problems; Suckling; Swallowing.

Introduction

Breast feeding gives a smart start in life for baby and mother. Breastfeeding helps the mother to read her baby's cues and body language, which is the initial step in getting to know her baby. It is one of the best ways of bonding with baby, it is not only provides nutrition, comfort and nurturing it is also a time for mom and baby to study one another's faces. During the first few months of a baby's life, her mother is everything to her – her source of comfort, security and nourishment everything and *breastfeeding* provides an excellent opportunity for mother and infant to form a strong bond.

Breast feeding as the best method of infant feeding because it is associated with important and wide ranging health outcomes. Breast feeding is now an endangered practice around the world in both rich and poor countries. It has been estimated that out of all interventions for child survival, breastfeeding alone prevents 13% of mortality among infants.

Healthy people 2010 goal for initiating breastfeeding during postpartum period is 75% of all newborn infants. The average rate of infants being exclusively breastfed is only 33%, which is considerably lower than the goal. Successful lactation is greatly influenced by the motivation and

confidence of the mother and by the support from her relatives and health professionals. The more a mother nurse, the more milk she will produce.

The four essential attributes of effective breastfeeding are positioning, latch, sucking and milk transfer. It is considered that an effective sucking technique is important to establish breastfeeding, to ensure milk transfer and to avoid breastfeeding problems. Poor positioning and latch leads to low milk production. The time of breastfeeding initiation also matters and it is recommended to give breast milk within 1st hour after delivery [20].

Good latch is important in preventing the common breastfeeding problems of nipple sore, unsatisfied babies, breast engorgement, insufficient milk supply and hyperbilirubinemia which leads to unsatisfactory weight gain. The relationship developed through breastfeeding can be an important part of maternal infant bonding. Early maternal interactions with the infant provide a source of security and comfort to the infant. It is essential that an experienced professional observe and assist with several feeding to document good lactation.

The variables associated with breastfeeding duration identified from meta analyses, literature reviews, quantitative and qualitative studies. Variables include the demographic factors, biological factors consisted of poor milk supply, infant health troubles, physical challenges of breastfeeding like parity and mode of delivery, the social problems included income, family support and professional support, psychological variables consisted of insufficient milk supply and infant health problems, the physical challenges of breastfeeding like parity and mode of delivery, the social problems included income, family support and professional support and the psychological variables like maternal interest and confidence in feeding [13].

The three factors early discharge, lack of early follow up and lack of access to lactation services may increase an infant's risk for hospital readmission if breastfeeding is not going well. When an infant is hospitalized for any problem, breastfeeding duration and previously established breastfeeding patterns are difficult to maintain and affects negatively. He has found breastfed babies are most likely to lose weight due to inadequate breast milk intake due to poor feeding technique.

Breastfed infants present to the hospital during the first 2 to 4 weeks of life with diagnosis that may be directly related to breastfeeding failure include weight loss, dehydration, hyperbilirubinemia, failure to thrive [13]. Maternal perceptions of insufficient milk supply in breastfeeding are one of the most

important causes for early cessation and found that insufficient milk supply decreased exclusivity in mothers who have initiated breastfeeding [17].

Association between total serum bilirubin level and weight loss in healthy term infants readmitted for hyperbilirubinemia after birth hospitalization. Significant weight loss reflects feeding problems and an important factor associated with severe hyperbilirubinemia in breastfed infants. Weight loss from birth could become a useful clinical indicator to identify breastfed term infants at risk of severe hyperbilirubinemia either during birth hospitalization, in early neonatal period or follow up visits [23].

Methods

The study was conducted at KMCH, both inborn and referral mother baby- dyad, in the year 2012 at Coimbatore, Tamilnadu, India. Formal permission was obtained from the chairman and concern hospital authorities. The mother and baby were selected with BF problems who were fulfilling the inclusion criteria. The pre test was conducted among 30 mothers, individually assessing the breast feeding problems, maternal satisfaction, infant satiety and weight of babies. Individual lactation intervention was given. After 15 days the post test was conducted. The magnitude of BF problem was assessed by observation checklist containing 30 items in which five items related to feeding position, eight items for baby response, four items for emotional bonding, four items for anatomy of breast, nine items for suckling and swallowing. The tool was tested with inter rated reliability which was 0.73.

The maternal satisfaction and infant satiety was assessed by H and H Lactation scale consist of nine items with three subscales with three items each such as maternal confidence/ commitment on BF, perceived infant BF satiety, maternal infant BF satisfaction. The responses are scored as follows: strongly disagree (1), disagree (2), somewhat disagree (3), neutral (4), somewhat agree (5), agree (6), strongly agree (7). Reliability of the tool is 0.08.

The enrolled mother baby - dyad was interviewed and recorded in the sample form. It includes the demographic variables of the babies were age, sex, and birth weight, initiation of breastfeeding and reason for seeking medical help. The demographic variables of the mothers were age, educational status, occupation, family support, parity, type of delivery, source of information regarding breastfeeding. Lactation intervention includes video assisted

teaching which consists of PASS and individual demonstration on breastfeeding.

Results

The outcome of the study results were computed using SPSS package both descriptive and inferential statistics which are discussed as under. 40% of babies belonged to age group of 45-60 days and 63.3% were male babies. 53.3% had birth weight of more than 3kg. 50% of babies initiated breastfeeding after 6 hours of delivery. 43.3% babies came with the problem of poor weight gain.

Majority of the mothers 53.4% were in the age group of 25-30 years. 80% of mothers were graduates. 80% were homemakers and 93.3% of them were getting family support from their mothers. 66.7% of the mothers were from joint families. 80% of mothers were primiparas. 66.7% of the mothers had caesarian section. 80% of the mothers got information regarding breastfeeding from the health workers

The 't' value for the pre and post test weight gain of babies which is 10.532 significant at $p < 0.01$. Thus it is evident that there is a significant increase in the weight of the babies after lactation intervention.

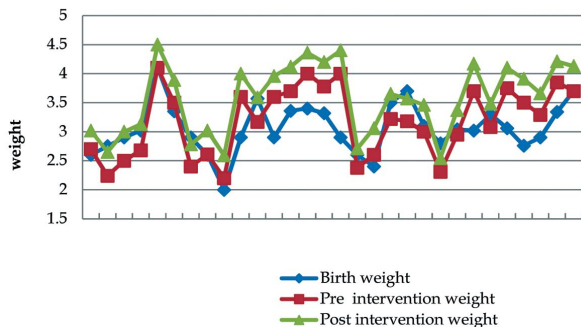


Fig. 1: Distribution of weight of babies

The computed 't' value of lactation problem based on the observation checklist were 50.466. Pre and post test score shows significant at $p < 0.01$. It is evident that the lactation problems decreased after intervention.

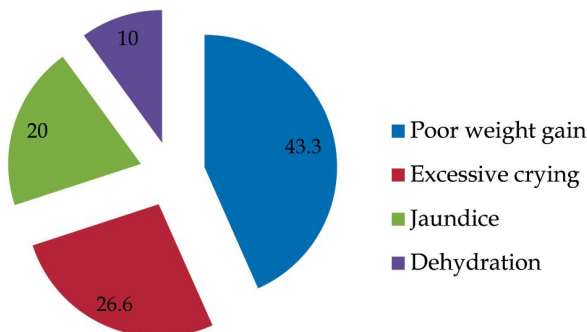


Fig. 2: Breastfeeding problems

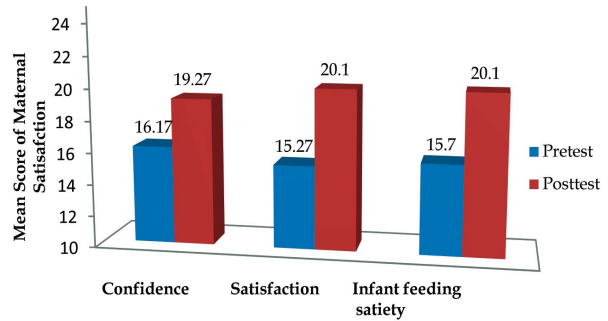


Fig. 3: Distributions of mean scores of H. H, Lactation subscales of maternal satisfaction

Computed 't' value of maternal satisfaction on breastfeeding before and after intervention was 6.490 which was significant at $p < 0.01$. It is evident that there is an increase in maternal satisfaction after lactation intervention. The computed 't' value of maternal confidence was 3.624, maternal infant feeding satisfaction was 5.743 and perceived infant breastfeeding satiety were 4.547 which was significant at $p < 0.01$. It shows that there is an increase in post test score of subscales of maternal satisfaction on breastfeeding after intervention.

Conclusion

The following conclusions were drawn from the study.

- Weight of the babies increased after lactation intervention, 't' value is 10.532, which is significant ($p < 0.01$). It shows that the intervention is effective in rectifying breastfeeding problems of the babies and mothers.
- Maternal satisfaction has increased after lactation intervention and the 't' value is 6.490 which is significant at $p < 0.01$. It shows that the maternal satisfaction has increased after the intervention and it is necessary for successful lactation.

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