

# Effectiveness of a breastfeeding education program for mothers of high risk infants on breastfeeding outcomes

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## Background

- Breast milk is the most natural and suitable source of nutrition for newborns and breastfeeding can enhance maternal attachment to her newborn.
- For newborns in the neonatal intermediate care unit after birth, exclusive and continued breastfeeding can be affected by factors such as mother-infant separation, infant's health conditions and maternal anxiety.
- Providing support to mothers and preparing them to have adequate information related to the situations of the mother and the newborn during the early phase of the newborn's admission are important.

## Objectives

- To evaluate the effectiveness of a breastfeeding education program on maternal breastfeeding knowledge, anxiety, attachment, perceived nursing support and one-month exclusive breastfeeding rate.

## Method

- A historical comparison study.
- A total of 68 mothers whose newborns were admitted to the neonatal intermediate care unit after birth and planned to breastfeed participated.
- The comparison group (N=34) received routine care
- The intervention group (N=34) received a breastfeeding program designed for these mothers.

## Measures

- At the newborn's admission and discharge:
  - Maternal breastfeeding knowledge
  - Situational anxiety
  - Attachment
- At discharge:
  - Perceived nursing support
- At 1-month: Breastfeeding type

- ◆ **The breastfeeding education program including 28 short modules were made and downloaded onto a tablet personal computer.**
- ◆ **Each module elaborated on a breastfeeding topic and provided video clips to show practice steps if necessary.**
- ◆ **During the mother's 3-5 days stay on the postpartum unit, mothers could repeatedly watch every module or select topics related to her situation at her own pace.**

## Characteristics of the mothers and infants

	Intervention group (n=34) n(%) /M±SD	Comparison group (n=34) n(%) /M±SD	t/ X <sup>2</sup>	p
Mother's age	34.18±4.14	35.24±4.48	-1.012	.315
College and above	27 (79.41%)	24 (70.59%)	.706	.401
Spontaneous delivery	8 (23.53%)	14 (41.18%)	2.419	.120
Gestational weeks	37.53±2.06	38.03±1.42	-1.163	.249
Birthweight	2904±584	3212±513	-2.006	.049*
Infant's diagnosis				
Apnea	0	1 (2.9%)		
Cyanosis	1 (2.94%)	0		
Heart murmur	1 (2.94%)	0		
Left neck hygroma	1 (2.9%)	0 (0.0%)		
L't neck mass	0	1 (2.9%)		
Hyperbilirubinemia	0	8(23.5%)		
Preterm	2 (5.9%)	2 (5.9%)		
Respiratory distress	27 (79.4%)	22 (64.7%)		
TOF	1 (2.9%)	0 (0.0%)		
VSD	1 (2.9%)	0 (0.0%)		

## Results

- Compared to admission, mothers in both groups had increased breastfeeding knowledge, decreased anxiety, and greater attachment at discharge.
- After adjusting for newborn's birth weight, mothers in the intervention group had better attachment to their newborns and perceived nurse support than mothers in the comparison group.
- The one month exclusive breastfeeding rate was significantly higher in the intervention group (61.8%) than the rate in the comparison group (35.3%).
- Mothers in the intervention were very satisfied with the educational program and provided positive feedback.

## Conclusion

- Designing an supportive intervention for the mother can effectively increase maternal attachment with her newborn during mother-newborn separation related to infant admission to a neonatal intermediate care unit and help to maintain exclusive breastfeeding at one month.

