

## MATERNAL BREASTFEEDING SELF-EFFICACY DURING THE FIRST WEEK AND SIXTH WEEK POSTPARTUM.

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### Abstract

The ideal nourishment for first 12 months of a child's life is breastfeeding and maternal self-efficacy is one factor that affects breastfeeding duration. Therefore, the present study aimed to compare the maternal breastfeeding and self-efficacy during the first week and six-week postpartum. This descriptive, analytical study was conducted on 767 women referring to the Family Health Research Center of Rashtin 2014. Mothers were selected through continuous sampling. For data collection, demographic questionnaires, and Dennis breastfeeding self-efficacy scale was used. For data analysis, Chi-square, Mann-Whitney U, Pearson's correlation coefficient and multiple regression were performed, using SPSS version 19. In this study, most mothers had scores compatible with moderate self-efficacy in the first week and in the six week had high self-efficacy for breastfeeding. Results of the study indicate that breastfeeding duration increases the breastfeeding and self-efficacy levels. So, developing and implementing appropriate approaches needed to improve breastfeeding duration in mothers.

**Key words:** Infant, self-efficacy, breastfeeding.

### Introduction

Breastfeeding is the ideal nourishment for first 12 months of an infant's life. Exclusive breastfeeding is currently recommended during the six months of life by the American Academy of Pediatrics because it is the most natural nourishment. Breastfeeding was associated with a lower risk of respiratory tract infections, asthma, otitis media, gastroenteritis, atopic dermatitis, obesity and diabetes. Other advantage for mothers includes reduced risk of postpartum depression, breast cancer and ovarian cancer.

The rate of breastfeeding among Iranian mothers is similar to many countries against their prenatal intention to breastfeed is low. In a study by Olang, 63,071 infants of age less than 24 months in Iran showed that breastfeeding at six months after birth was 56.8% and 27.7%, respectively. Although most mothers believe breast milk is the ideal food for newborns, Nasserpour et al. study showed that the rate of infants' exclusive breastfeeding was very low, and only 37% of babies remain breastfed exclusively until 6 to 8 weeks after birth. In spite of the high rate of initiation, breastfeeding drop-off rate increased after discharge of mothers from the hospital. Because many breastfeeding maternal and infant challenges may be occur during the postpartum period. This challenge includes pain, nipple shape, perceived insufficient milk supply and poor suck in infant. But all over the world, studies investigate breastfeeding initiation and duration have shown it to be a significant variable related to breastfeeding self-efficacy.

In the Bandura's cognitive-social theory, self-efficacy is a cognitive dynamic process that assesses the people's beliefs and their ability to conduct a health behavior. The Breastfeeding Self-Efficacy Theory was developed by Dr. Dennis. Breastfeeding Self-Efficacy Scales measuring an instrument to recognize the role self-efficacy plays in relation to breastfeeding behaviors.

Self-efficacy is a strong sense that a persuasive person involves themselves fully in the activity, to tolerate hardships and obstacles. Specifically, mothers with a low self-efficacy may decide not even to initiate breastfeeding or stop early due to the

absence of effective coping skills, while a mother with a high self-efficacy for breastfeeding tend to start breastfeeding and continue even through the challenges. Women with higher perceived self-efficacy will be determined to be successful in spite of failed efforts. A lot of mother describes problems with breastfeeding in the early month's post-delivery. Breastfeeding Self-Efficacy (BSE) talk about to a mother's perceived capability or assurance to breastfeed affects her choice regarding breastfeeding.

However, many studies have observed the consequences of BSE for the duration of it, but little study has been done to conclude the maternal BSE at several times of the postpartum period. So, the purpose of the present study is to create and compare the maternal BSE at the 1st week and 6<sup>th</sup> week post-delivery.

## Methodology

A descriptive- analytic approach was used in this study. The study population included 767 breastfed women who were referred to the Family Health Research Center in Rasht and met the inclusion criteria. Samples were selected continuously to participate in this study. Mothers of all newborn babies are offered in this center between two and five days after childbirth for congenital hypothyroidism screening.

In this study, the inclusion criteria were being Iranian, living in Rasht, age up to 16 years old, started breastfeeding, no history of high-risk pregnancy and feeding the infant with breast milk in the past 24 hours and having telephone access, basic education. Exclusion criteria consist of mothers with a breast abnormalities, eating disorder, or children with cleft palate.

The study started in March 2014 and was accomplished by December 2014. In order to collect data, demographic characteristics items was prepared by the research team to collect the socio-demographic data and used Dennis' Breastfeeding Self-Efficacy Scale Short Form (BSES-SF) to evaluate BSE. BSES-SF is a 14-item scale with a score ranging from 14-70. BSES-SF consists of constructive declarations such as "I can always

determine that my baby is getting enough milk" and "I can always be satisfied with my breastfeeding experience." Contributors were inquired to degree their agreement with the declaration based on the Likert-type scale. Reply '1' revealed that the contributor was not at all assured and reply of '5' revealed that the contributor was very sure with the declaration. Device Reliability was reported with a Cronbach alpha of 0.94.

BSES was translated into Persian by two linguistics, and two experts in the health care field independently. BSES was used previously in the Iranian community. In a previous study, Persian version of BSES had high internal consistency reliability ( $\alpha=0.82$ ). In this study, the content validity method was used to achieve instrument scientific validity. To determine the reliability, a pilot study was performed using 10 eligible subjects. The Cronbach's alpha coefficient was calculated as 0.89 representing the internal consistency of the questions.

All the participants were informed of the objective and design of the study, written consent was received from the participants and it was explained that they were free to leave if they wished. Subsequently, the study participants were asked to complete BSES at two time periods, the Time 1 data point was at first week postpartum and the Time 2 data point was at six-week after childbirth to determine and compare the maternal breastfeeding self-efficacy at Time 1 and 2. At Time 1 participants received questionnaires from the research assistant to assess breastfeeding self-efficacy in the Family Health Research Center. The second time (six weeks postpartum) BSE assesses was conducted by telephone follow up.

For data analysis, the statistical SPSS version 19 software was used. Descriptive statistics (frequencies, percentages means and standard deviations), chi-square, Pearson correlation coefficient and Multivariable linear regression were used for statistical purposes. The relationship or difference is considered significant if it was  $<0.05$ .

The design of the study was approved by the Ethics Committee of University of Medical

Sciences, Gilan, Iran. Institutional approval was obtained from the Family Health Research Center board. The participants were informed about the purpose of the study and the process to be used, and signed an informed consent form. The participants were informed that they could discontinue the research at any time for any reason.

## Results

In this study, from the 858 selected mothers, according to the inclusion and exclusion criteria's, 767 subjects participated in the study. The participants' age ranged from 16 to 46 years and the average age was 28.2 years. Mean score and

standard deviation of BSE during the first week was  $57.64 \pm 9.94$  and in the sixth week was  $62.66 \pm 7.57$  (Table 1).

An analysis of the chi-square test showed that there was a statistically significant relationship between levels of education and breastfeeding self-efficacy score, as well as Mann-Whitney U test results which revealed that there was a statistically significant relationship between BSE score and the employment status. Results of the sixth week assessment showed that there was a rise in overall breastfeeding self-efficacy score or in any of the subscales.

**Table 1**

**Comparison of mean score of BSE during the first week and six-week post-delivery. (N=767)**

Mean and standard deviation score of mothers breastfeeding self-efficacy		Paired t-test
First week	$57.64 \pm 9.94$	P=0.001
Six week	$62.66 \pm 7.57$	

There was improvement in mean scores of BSE between the first week (M = 57.64; SD = 9.94) and six weeks (M = 62.66; SD = 7.57). BSE score varied from 14 to 70 points. When the respondent obtains between 14 and 32 points, she is considered to have Low efficacy; between 33 and 51, Moderate; and between 52 and 70, High efficacy. Most mothers in the first week (53.71%) had scores compatible with moderate self-efficacy and in six weeks (42.24%) had high self-efficacy for breastfeeding (Table 2).

**Table 2**

**Frequency distribution of the participating mothers according to BSES. (N= 767)**

Score of Self-Efficacy (n= 767)	First week	Six week
	N (%)	N (%)
Low (14-32)	130(16.95)	52(6.78)
Moderate (33-51)	412(53.71)	324(42.24)
High (52-70)	225(29.34)	391(50.98)

## Discussion

The objectives of this descriptive - analytic study were to examine the effect of breastfeeding duration on breastfeeding self-efficacy. The results from this study indicated that BSE of women at the end of the six postpartum week was significantly different than the one week and breastfeeding duration increase BSE levels. These findings are

consistent with other reports where Glassman et al. investigated the impact of BSE and sociocultural factors on early breastfeeding. They found that the optimal duration of breastfeeding had a positive influence on BSE than other factors, such as the mother's educational background and social status. Women with high scoring BSE in the first week was 29.4% but showed a progressive rise (50.98%) at six

week. The association of breastfeeding duration with BSE score showed that mothers who breastfeed longer higher had high self-efficacy scores. The positive correlation between breastfeeding duration and BSE score may be because there was increase in maternal confidence.

The results of this study have an essential duration of breastfeeding. Therefore, health education strategies that would sustain breastfeeding in women and increase breastfeeding rates can make BSE available for mothers. Self-efficacy increasing approaches may increase assurance of mother in her breast feeding abilities, and to persist if she does encounter problems.

In this study, there was no significant relationship between duration of breastfeeding and the age of the mother or the weight of the infant. In Hajian's study, however, there was a statistically significant relationship between these variables. In Khayyati's study, there was no relation between the mother's age and breastfeeding duration. Though, in McCarter's study, revealed that the age of lesser than 19 and over 25 had a negative consequence on duration of breastfeeding.

### Conclusion

In general, the results showed that the exclusive breastfeeding duration could increase BSE of mothers. Considering the importance and the benefits of exclusive breastfeeding, the results of this investigation and data was accessible in Iran, especially in Rasht. In order to increase the rates of short duration and exclusive levels of breastfeeding,

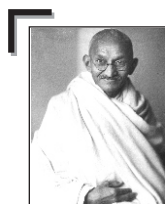
a health professional need to consistently evaluate high risk mothers who may stop early and recognize their levels BSE of mothers.

### Acknowledgment

This paper is a result of Master thesis of nursing from Gilan University of Medical Sciences.

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“Live as if you were to die tomorrow.  
Learn as if you were to live forever.”

- Mahatma Gandhi