

## The Relationship between Emotional Intelligence (EI) and Breastfeeding Success in Lactating Mothers

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### Abstract

#### Introduction

Breastfeeding is one of the most effective ways to promote children's health. The purpose of this study is to determine the relationship between Emotional Intelligence (EI) and success of breastfeeding.

#### Materials and Methods

In a cross-sectional study in referring of multiple health centers in Shiraz, sample of 150 mothers with children aged one to three 3 years were selected using convenience sampling method and divided to breast fed and formula fed children groups, they obtained Bar-on and demographic questionnaire. Data were analyzed by SPSS software and significant level for all tests was considered as 5%.

#### Results

Mean age of mothers was  $28.8 \pm 4.3$  and the mean age of children was  $19.80 \pm 5.8$  months in breast fed and  $18.98 \pm 6.25$  in formula fed infants ( $p=0.406$ ); 45.3% of mothers were high school graduates or low literate, and the rest of them were college educated. 71.3% of the women were housewives and most of them were nulliparous. 71.3% of all women had cesarean delivery. The mean duration of breastfeeding in children were  $14.80 \pm 4.35$  months in breast fed and  $3.98 \pm 1.25$  months in formula fed infants ( $p<0.001$ ).

In terms of the average age, education and child birth rank, the two groups were not significantly different ( $P>0.05$ ). Emotional intelligence in the group of lactating mothers was significantly higher than non-lactating mothers (347 versus 296;  $P<0.001$ ).

#### Conclusion

Mothers who success in breastfeeding have higher EQ than non-lactating mothers. Since it is possible to identify and promote EQ, therefore, we can help to breastfeeding success of mothers.

**Key words:** Breastfeeding, Emotional Intelligence (EI), Emotional Quotient (EQ).

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## Introduction

Given that breastfeeding is one of the most effective treatments to prevent disease and improve health, especially in the first 6 months of life, so the scientific and practical promotion of the society in line with greater use of breast milk is very necessary. Various factors of physical, mental, characters and environments play a role in breastfeeding success. Does breastfeeding is a skill that besides the instinctive pulls of any mother, other components are involved in the stabilization of this skill and behavior? Will emotional skills that return to inherent, internal and personality correlation of person, or in other words mother's Emotional Quotient (EQ), help her in this great skill of breastfeeding? According to the "Golman" Intelligence Quotient (IQ) at its best is only 20% of success factor in life and 80% of success depends on the skills that make up emotional intelligence. Emotional intelligence that is briefly called EI and usually its assessment criteria is called EQ that implies the ability, perception capacity or skill, assess and manage emotions in oneself and others (1, 2). People with high emotional competence, have better social skills, more stable long-term relationships and have greater ability to resolve conflicts (3- 4). Although humans due to the genetic and nature factors are different in the setting of emotions, learning through training can enhance the capabilities and skills of people at all levels have to be. Bar-on after two decades of research on emotional intelligence defined 15 sub-scales for emotional intelligence(5,6): Emotional self-awareness, assertiveness, self-regard, self-actualization, independency, empathy, social responsibility, interpersonal relationship, reality testing, flexibility, impulse control, stress tolerance, problem solving, optimism and happiness. Results indicated that the Emotional

Quotient Inventory (EQ-I) domain and component scales had good item homogeneity and internal consistency (7, 8). Higher emotional intelligence is associated with the further collaboration with others and reducing stress (9) and anxiety (10); and increasing the higher level of happiness and mental health (11), decreasing depression and greater independence (12). Lumley and Smith (13) during a study were reported that individuals who are unable to understand and express their emotions, experience more pains. It is shown that between borderline personality disorder and emotional intelligence, there is an inverse relationship (14, 15). In a research was conducted by Brown and Schot in 2006 (16) concluded that the higher the emotional intelligence, feelings of weakness and fatigue in person will be less. In a research was conducted by Elizabeth Austin et al. in 2005 (10) were concluded that between alcohol consumption and emotional intelligence there is a negative relationship, and with individual life satisfaction and performance and social relationships, there is a positive relationship. Mother taking care of her baby depends on many factors, such as individual genetic susceptibility, infant response, previous maternal history of her interpersonal relationship type, family support person (17); type of pregnancy, previous pregnancies and mother's culture (18). Various physical, psychological and social factors can contribute to success of breastfeeding (19-23). Psychological problems, stress (24), lack of adequate support from family, especially in the early period after delivery, mother returned to work, lack of psychosocial support, lack of breastfeeding education during the prenatal, postpartum depression (25-27 ), family problems, lower social class, low age (25), maternal obesity (28)at the beginning of pregnancy, mother working (29), dissatisfaction with his limbs and lack of dependency on child

and parents' lack of awareness of the benefits of breastfeeding (30) are factors that led to the failure of breastfeeding or early cessation of breastfeeding. Cesarean delivery and infant hospitalization at the hospital during the neonatal period (31-32), lack of support lactating women, lack of sufficient regular follow-up of infant, mother smoking and rapid giving of bottle of milk can also cause cessation of breastfeeding (20, 33, 34). Breastfeeding self-efficacy on breastfeeding success rate is impressive (35-37). Hence we decided to conduct a research in order to assess the relationship between emotional intelligence and success rates in breastfeeding mothers, so to reinforce the EQ of mothers increase the success rate of breastfeeding.

## Materials and Methods

This cross-sectional study was designed to evaluation and comparison of emotional intelligence in mothers who managed to breastfeeding with mothers who failed to breastfeed. Study population was mothers with children under 3 years who were referred to 5 health centers in Shiraz, Southwestern Iran, between January 2012 to September 2013 to check the health of their child. With regard to the research objectives and predicted effect size of 30% in the two studied groups (according to similar studies) and power of 80% and 95% confidence, were constituted approximate sample of 150 women in which selection of them based on objective and to achieve at least 75 people in each of the two groups were predicted.

All women should have children less than or equal to three years and willingness to cooperate in the research after the description about the study and have enough time. The sample was chosen in such a way that half of them breastfed their children and the other half who fed their children with dry milk powder.

Demographic information questionnaire included questions about age, occupation, education, type of delivery, infant age and birth order, birth weight, and feeding type (breast fed or formula).

Emotional intelligence questionnaire included 15 subscales; each subscale consists of six questions, each question depending on the given answer that was in the form of "Strongly agree – agree – somewhat agree – disagree – strongly disagree" that was scored from 1 to 5. Researcher with collaboration of health centers and clinics and with the introduction letter personally interviewed and collected data. In this study, descriptive statistics methods and central indices including mean, median, ratio and dispersion indices were used. Then to compare demographic data between the two groups, independent t-test for quantitative variables and the chi-square test for qualitative variables were used. All tests at 5% level of significance using SPSS software version 16, were calculated.

## Results

Age of mothers was  $28.8 \pm 4.3$  with an age range of 20 to 40 years. The mean age of children was  $19.80 \pm 5.8$  months in breast fed and  $18.98 \pm 6.25$  in formula fed infants respectively. There was not significant difference between two groups ( $p=0.406$ ). Other specifications related to the studied samples are given in (Table.1). 45.3% of mothers were high school graduates and low literate and the rest of them were college education. 71.3% of the women were housewives and most of them were nulliparous. The mean weight of the child in the samples was  $3070.2 \pm 498$  gr and 71.3% of them had cesarean. In terms of mother age variables, type of delivery, occupation, education and birth rank between the two groups were not significant ( $P>0.05$ ). The mean duration of breastfeeding in children was  $14.80 \pm 4.35$

months in breast fed and 3.98±1.25 months in formula fed infants there was significant difference between two groups (p<0.001). Total score of the emotional intelligence in the first group (breastfeeding) was 347 ± 26, and in the second group (formula feeding) 296 ±

24.6, respectively. Independent t- test results showed that the mean score of emotional intelligence are highly significantly different in the two group (P<0.001). Also, no significant differences were observed in all sub-scale (p<0.001) (Table.2).

**Table1:** Demographic characteristics of the studied groups

Variables	Barest feeding	Non Barest feeding	P-value
Madder's age (year)	28.90±4.90	28.70±4.10	0.762
Education			
Diploma & under diploma	7 (9.30)	5(6.70)	0.073
University	68(90.70)	70(93.30)	
Job (household/employee )	59(74.40)	51(68.20)	0.140
Delivery (N/C)*	23(30.66)	20(26.66)	0.587
Birth rank (median)	2	2	0.803
Child's age (month)	19.80±5.80	18.98±6.25	0.406
Barest feeding time (month)	14.80 ±4.35	3.98±1.25	<0.001

N/C= Natural or Cesarian

**Table2:** EQ scales of the studied group

Variable	Lactating Mothers	Non-Lactating Mothers	P-value
	Mean ± SD	Mean ± SD	
Problem solving	24.2±2.3	21.8±2.5	<0.001
Happiness	24.1±3.1	20.2±3.9	<0.001
Independency	22.4±2.7	18.7±3.5	<0.001
Stress tolerance	21.1±3.1	16.3±2.9	<0.001
Self- actualization	24.5±2.5	20.2±3.3	<0.001
Emotional self-awareness	23.4±2.8	19.6±3.1	<0.001
Reality testing	22.2±3.1	18.2±3	<0.001
Interpersonal relationship	24.9±2.9	22.3±3.6	<0.001
Optimism	24.3±2.8	20.4±2.8	<0.001
Self-regard	23.9±3.9	20.6±3.2	<0.001
Impulse control	19.5±4.3	15.7±3.9	<0.001
Flexibility	20.6±3.4	17.4±2.8	<0.001
Responsibility	26.1±2.4	24.2±3.3	<0.001
Empathy	25.3±3.1	23.1±3.3	<0.001
Assertiveness	19.5±3.6	16.1±3.3	<0.001
Emotional intelligence	347±26	296±24.6	<0.001

## Discussion

This research is a unique study that has not been done so far. We had the review on studies related to factors affecting breastfeeding mothers, the studies that show relationship of psycho-social components and intrinsic character with

breastfeeding was limited such as two studies by Dennis and Zhu (35-37) were carried out, those were concluded that breastfeeding self-efficacy on breastfeeding success rate is impressive.

Cooper et al. (1993) (25) in a study stated that depressive disorders are among the factors contributing to cessation of breastfeeding. In a study was conducted by Misiri (26) in 1997 on 51 women who had postpartum stage, showed that 83% of women who had postpartum depression, had stopped breastfeeding and only 17% had continued breastfeeding. In a study conducted by Insaf et al. in 2011 (24) were obtained these results that women with high levels of stress and anxiety in their early and mid-pregnancy compared with women who do not have stress, breastfeeding of them are less likely. As well as women with mild to severe depression in the middle of their pregnancy, compared with women who did not have depressive symptoms are less likely to breastfeed.

A study (30) showed that there are two incompatibility and contradictions in both groups, who did not breastfeeding and those who had stopped breastfeeding:

1. They accept a contradiction of the biological role of mother against child and the other roles that society has for women. Mother's role as a role in the middle social class of American communities has been considered.

2. There is also a contradiction about the role of breastfeeding against the sexual role of it. Breast in female has psychological role equivalent to the penis role in male. Hence, they have been considered breastfeeding as a threat to their sterility.

In the current study with investigating the intrapersonal and interpersonal components we showed that there is direct and significant relationship between emotional intelligence and success of breastfeeding. Breastfeeding and non-breastfeeding mothers were divided into two groups that the two groups were similar in age, education, social class and birth rank (health centers were all in areas

with average social level). Breastfeeding and non-breastfeeding mothers' EQ were  $347 \pm 26$ ,  $296 \pm 24.6$  ( $p < 0.001$ ), respectively. It seems that EQ and its subscales highly help to resolve the contradiction and create compatibility and vitality and ward off negative feelings and other psychological issues in order to communicate with children and solve problems caused after delivery and stabilization breastfeeding.

### Conclusions

Based on this research, mothers who success in breastfeeding, have higher EQ than non-lactating mothers. Because EQ is identifiable and promotable, so education can help mothers for breastfeeding success.

**Conflict of interests:** None.

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