Investigation the relationship between self-esteem and breastfeeding self-efficacy in primiparous breastfeeding mothers referring to Mashhad medical centers

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ABSTRACT

Background and Objective: Breastfeeding is an effective way to protect and promote mothers and children's health. Two important factors that affecting breastfeeding success, are self-esteem and breastfeeding self-efficacy in women. The aim of this study was to investigate the relationship between self-esteem and breastfeeding self-efficacy in primiparous breastfeeding mothers.

Materials and Methods: Descriptive cross-sectional multi-stage random sampling study conducted in 2014 on 300 primiparous breastfeeding mothers referring to healthcare centers of Mashhad, Iran. Data collection was performed by demographic form, breastfeeding self-efficacy Scale and Rosenberg self-esteem scale. Data were analyzed using descriptive, inferential statistics and general linear model through SPSS version 16.

Results: About demographic characteristics of participants, mother age (p= 0.001) and husband age (p< 0.001) and family income (p= 0.024) had a significant relevancy with self-esteem but infant age, husband education, residency and method of delivery weren't like that. And about relation with breastfeeding self-efficacy only method of delivery (p= 0.040) was significant. As well as, most mothers (79.3%) had high level of breastfeeding self-efficacy with a mean score of 131±13.60 and 78.7% of them had high level of self-esteem with a mean score of 27.85±3.54. Regression analysis confirmed the relationship between self-esteem and breastfeeding self-efficacy. According to the result by each score increasing of self-esteem score, breastfeeding self-efficacy score increased about 0.779.

Conclusion: As the result indicated, maternal self-esteem is related to breastfeeding self-efficacy. These factors can help health care providers to predict length of breastfeeding, success rate of exclusive nutrition in mothers and can lead to the identification of mothers at the risk of the early breastfeeding cessation.

Paper Type: Research Article
Keywords: Breastfeeding, Self-efficacy, Self-esteem, Primiparity.

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Introduction

Lactation is an effective way to protect and promote the health of mothers, babies and children. The strength of this evidence has led to global recommendations by the World Health Organization(WHO 2002), for exclusive breastfeeding for the first six months and continued breastfeeding for up to two years (1). Increasing the rate of Exclusive Breastfeeding at six months from the rate of 38% to 50% by 2025 has become a global health target (2).Studies have found that mothers who are young, low income and less educated are particularly more likely to terminate breastfeeding prematurely (3). Many of these variables are non-modifiable variables. To deal with low breastfeeding duration and rates, it is essential to recognize factors that support breastfeeding(4). Maternal psychological differences such as the level of self-esteem breastfeeding self-efficacy and experiences of stress depression and anxiety have been shown to influence the duration of breastfeeding(5).

Breastfeeding self-efficacy, which is one of the structures of social cognitive theory of Bandura (1977), is referred to the mothers' beliefs and confidence in their ability to successfully perform breastfeeding. (6). Studies examining breastfeeding self-efficacy have revealed that self-efficacy is an important variable related to breastfeeding initiation, duration and exclusivity. Women with higher breastfeeding self-efficacy scores were significantly more likely to breastfeed and to persevere in human milk only 1 week to 4 months after delivery (7). In this regard, Kingston and colleagues (2007) has remarked that the enhancement of maternal breastfeeding self-efficacy would increase the possibility of breastfeeding through self-motivating thoughts. In addition, this perception has a significant relationship with increased duration of exclusive breastfeeding (8). Furthermore, in a study conducted by Turner and Papinczac, it was demonstrated that the breastfeeding mothers were not capable for that, their level of breastfeeding self-efficacy was significantly low (9). Also, in a study performed by Varaei and colleagues (2009), more than half of the mothers obtained a high score in breastfeeding self-efficacy(10).

On the other hand in two studies carried out by Ebrahimi and Hasanpour (2010) as well as Hatamleh (2006), the majority of the mothers were reported to have low breastfeeding self-efficacy scores (11).

One of the psychological factors effective in facing stress and help successful and continuous breastfeeding is the mother's self-esteem(5). Self-esteem is a part of the person's self-concept, which includes cognitive, behavioral, emotional aspects, and the value that people consider for themselves(12).

In a study of breastfeeding duration was significantly associated with maternal self-esteem, a finding supported by two qualitative investigations(9) and others found that on primiparous women that lack of lactation experience, knowledge and skills cause mothers feel anxious during lactation and their level of self-esteem was low. These mothers with low self-esteem early in childbirth may have a negative experience with motherhood and are unable to have a good lactation and take care of their child(12). Mannion and colleagues showed in their Study that lactating women had high self-esteem which correlate with higher self-efficacy(13).

There is significant positive relationships between general self-efficacy, self-esteem(14). The lack of breastfeeding self-efficacy in mothers could be associated with several consequences.

These consequences include the early cessation of breastfeeding, decreased duration of exclusive breastfeeding, reduced motivation, interference with the cognitive abilities, and negative effects on maternal feeling and performance(15). To improve breastfeeding outcomes, health providers need to determine antecedents that are modifiable in interventions (5).

The above evidence raised the question to the researcher about the potential relationship between breastfeeding self-efficacy and self-esteem. As limited studies conducted about breastfeeding self-efficacy and its related factors including maternal self-esteem in Iran, we decided to perform a study to determine the relationship between maternal self-esteem and breastfeeding self-efficacy in primiparous breastfeeding mothers referred to health centers in Mashhad.

Materials and Methods

Study design and population

This descriptive cross-sectional study was conducted on the primiparous breastfeeding mothers referring to the healthcare centers of Mashhad city, Iran, in 2014. After conducting a pilot study on the 30 mothers, with 95% confidence coefficient, the power of 80% the appropriate sample size was calculated as 250 participate. Given the possibility of sample loss, finally 300 participate were enrolled.

Inclusion and exclusion criteria

the inclusion criteria were Iranian nationality and residence in Mashhad city, primiparous breastfeeding mothers, and minimum education level of junior high school, having no history of medical problems, mental diseases or using banned drugs and had a singleton birth at 37 weeks gestation or greater, and neonatal age of < 6 months. Mothers were excluded if they had a factor that could significantly interfere with breastfeeding, such as an infant in the special care nursery who was not discharged home with the mother.

Methods

Study population was selected through the multistage sampling method. To this aim, out of the five main healthcare centers of Mashhad city (health centers number one, two, three, Samen, and five), which were considered as clusters, three centers, Samen health center, number one health center and number five health center were selected. Subsequently, the researcher referred to all of the healthcare centers affiliated to the three clusters (45 centers) to select the study participants through the simple random sampling technique. After providing participants with guidance regarding the completion of questionnaires, they were asked to fill out the research instruments.

Measuring tools: validity and reliability

The data were collected using the demographic form (information of mother, infant and husband), Breastfeeding Self-Efficacy Scale and Rosenberg Self-Esteem Questionnaire.

Breastfeeding Self-Efficacy Scale (BSES). The BSES (Dennis & Faux, 1999) is a 33-item, self-report instrument developed to measure breastfeeding confidence. All items are preceded by the phrase “I can always” and anchored with a 5-point Likert-type scale where 1 indicates not at all confident and 5 indicates always confident. As recommended by Bandura (1977), all items are presented positively, and scores are summed to produce a range from 33 to 165, with higher scores indicating higher levels of breastfeeding self-efficacy(16) Moreover, obtaining the score ranges of 33-76, 77-120, and 121-165 are considered as low, medium, and high self-efficacy(11). Content validity of the BSES was based on the literature, interviews with breastfeeding mothers, and expert judgment using a method recommended by Lynn 1986

in which Cronbach's alpha coefficient for the scale was 0.96(17)The content validity and reliability of this tool has been confirmed in a study conducted by Hassanpour and colleagues in which Cronbach's alpha coefficient was 0.82(11). In our study Reliability of the questionnaire was assessed in a pilot study on 30 participants, in which Cronbach's alpha coefficient was 0.88.

Rosenberg Self-Esteem Scale. The Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965) is a 10-item, self-report instrument developed to assess general feelings of self-worth. Items inquire about current feelings and are anchored with a 4-point Likert-type scale where 1 indicates strongly disagree and 4 indicates strongly agree. A total score is produced ranging from 10 to 40, with higher scores indicating higher levels of self-esteem(17). Obtaining the score above 25, 15-25 and less than 15 are considered as high, medium, and low self-esteem respectively(18). The RSES has been psychometrically tested with diverse samples, including new mothers demonstrating good reliability and validity(19, 20). The reliability (Cronbach's alpha coefficient =0.91) of this tool has been confirmed in a study conducted by Sharifi Nistanak and colleagues(21). Also The reliability (Cronbach's alpha coefficient =0.78) of this tool has been confirmed on college students of Shiraz in a study conducted by Mohammadi and Sajjadi(22). In our study Reliability of the self-esteem questionnaire was assessed in a pilot study on 30 participants, in which Cronbach's alpha coefficient was 0.64.

Data Analyses

Data analysis was performed in SPSS version 16.0 software through descriptive statistical methods, such as central tendency, dispersion and distribution of frequency. The normal distribution of the study variables was performed using Kolmogorov-Smirnov test. Spearman correlation test was used to examine the relationship between quantitative variables mother age, husband age and infant age with the main variables self-esteem and breastfeeding self-efficacy and Mann-Whitney nonparametric test was performed to investigate the relationship between nominal demographic variables and self-esteem and breastfeeding self-efficacy. Moreover, general linear model was applied to evaluate the effects of demographic variables and self-esteem on breastfeeding self-efficacy. P-value of less than 0.05 was considered statistically significant.

Results

According to the results, the mean age of the participants was 23.98±4.62 years, and the majority of the mothers (67.67%) were within the age group of 15-25 years. In terms of the education level, (36.3%) of the mothers had academic education, and most of the participants (89.3%) were housewife. Regarding the housing status, (40.7%) of the subjects had personal houses, and level of family income was reported as sufficient for most of the participants (80%). In addition, (61.3%) of the subjects had natural childbirth. The results of demographic characteristics of the participants are shown in Table1.

In terms of the main objective of the research, the results demonstrated that breastfeeding self-efficacy was at the medium and high levels in 62 (20.7%), and 238 (79.3) subjects, respectively. In addition, the mean score of breastfeeding self-efficacy was 131±13.60 in the evaluated individuals that was high. Also, the results demonstrated that mother's self-esteem was at the medium and high levels in 64 (21.3%), and 236 (78.7) subjects, respectively. In addition, the mean score of self-esteem was 27.84±3.54 that was high.

The frequency distribution of breastfeeding self-efficacy and self-esteem of the subjects are presented in Table 2.

Table-1: Relation of demographic characteristics of the participants and Self-esteem and Breastfeeding self-efficacy

Variables	Sub-group	Number and (Frequency %)	Self-esteem p-value	BSE p-value
Mother age	15-25	203(67.7)	0.001	0.693
	26-35	94(31.3)		
	36-45	3(1.0)		
Husband age	15-25	124(41.3)	<0.001	0.051
	26-35	150(50.0)		
	36-45	26(8.7)		
Infant age	0-2	151(50.3)	0.388	0.495
	2-4	99(33.0)		
	4-6	50(16.7)		
Mother education	Academic	109(36.3)	0.316	0.426
	Non academic	191(63.7)		
Husband education	Academic	107(35.7)	0.774	0.694
	Non academic	193(64.3)		
Mother job	Housewife	268(89.3)	0.053	0.063
	Employed	32(10.7)		
Husband job	Free job	153(49.0)	0.57	0.055
	Employed	147(51.0)		
Residency	Personal	122(40.7)	0.209	0.069
	Rental	178(59.3)		
Family income	Less than sufficient	60(20.0)	0.024	0.234
	Sufficient	240(80.0)		
Method of Delivery	NVD	184(61.3)	0.212	0.040
	C/S	116(38.7)		

NVD: normal vaginal delivery; C/S: caesarean section
p<0.05; significant

Table-2: frequency of the self-esteem score and breastfeeding self-efficacy score

Self-esteem		Breastfeeding self-efficacy		Total
		Moderate BSE	High BSE	
Self-esteem	Moderate self-esteem Count % of total	17 5.7%	47 15.7%	64 21.3%
	High self-esteem Count % of total	45 15.0%	191 63.7%	236 78.7%
Total	Count %of total	62 20.7%	238 79.3%	300 100%

To investigate the relationship between significant variables and their effect on breastfeeding self-efficacy, general linear model regression analysis was used, so that more effective variables were identified. For this purpose, breastfeeding self-efficacy was considered as dependent variable and self-esteem was considered as independent variable. In addition, the variables that had a significant or close relationship with the self-efficacy and self-esteem in the previous tests were entered in the model in order to control their potential confounding effect. So variables that were not effectively detected such as mother job, residency and husband age were excluded from the model. The results showed the relationship between maternal self-esteem and breastfeeding self-efficacy. According to the result by each score increasing self-esteem, 0.779 breastfeeding self-efficacy score increased. Table.3 shows the results of the final model of regression analysis and coefficients.

Table-3: Final general linear model regression to investigate the relationship between self-esteem and breastfeeding self-efficacy

parameter		B	p-value	95% confidence interval	
				lower bound	upper bound
mother job	employed	2.626	0.323	-2.593	7.846
	housewife	Baseline			
residency	rental	-1.995	0.212	-5.133	1.143
	personal	Baseline			
husband age		0.134	0.410	-0.1 86	-0.454
self-esteem		0.779	0.001	0.342	1.217

To investigate the accuracy of regression analysis in the final model, the effect of the variables studied on breastfeeding self-efficacy was calculated. The model's residuals were calculated and their distribution was normalized using Kolmogorov-Smirnov test. The results of the Kolmogorov-Smirnov test did not rule out the assumption of normal distribution of residuals (P = 0.163)

Discussion

As the findings of the present study indicated, the mean score of maternal self-esteem and breastfeeding self-efficacy considered high. In addition, majority of mothers were reported to have medium and high levels of self-esteem and breastfeeding self-efficacy and none of them were reported to have low levels of self-esteem and breastfeeding self-efficacy, respectively.

The transition to motherhood is a challenging and stressful process in postpartum women's life cycle. Mothers are very concerned about their infant's well-being. When a mother successfully adapts to the maternal role, she gains confidence in her ability to nurture and to ensure her infants' development, conversely, if mothers fail to meet their baby's needs and care for them properly, they will eventually feel negative about the role of motherhood.

Similar to the results of the present study in a study by Kamalifard and colleagues Self-esteem showed a significant relationship with breastfeeding self-efficacy(23).

In line with our findings in a study to investigate the effect of kangaroo mother care on maternal self-esteem reported both the intervention and

control group has a moderate level of self-esteem (24). Fabian and colleagues reported in their study on primiparous breastfeeding mothers that lack of lactation experience, knowledge and skills cause mothers feel anxious during lactation and their level of self-esteem was low(25). Robinsone and vande vusse (2011) showed in their qualitative study that the most mothers have high self-esteem in their lactation period(26). Liu C-C and colleagues (2012) reported in their study on effects of maternal confidence and competence on maternal parenting stress in newborn care that high maternal confidence and competence were associated with low maternal parenting stress. Maternal confidence influenced maternal parenting stress both directly and indirectly via maternal competence(27).

In Varaei and colleagues (2009) study 76.7% and 89.6% of the subjects were demonstrated to have a high level of self-efficacy after one and four month post-delivery, respectively(10). Bastani and colleagues (2012) evaluated the breastfeeding self-efficacy of the primiparous breastfeeding mothers within the first 24 hours post-delivery. They marked that 51.1% of the subjects have a high level of self-efficacy and 48.9% of them have a low level of self-efficacy(28). Parsa and colleagues (2016) evaluated the effect of breastfeeding counseling on the self-efficacy and continuation of breastfeeding among primiparous mothers. With regards to the role of consulting on self-efficacy and breastfeeding continuation, it is suggested for this consultation to take place in hospitals(29). Hasanpoor and colleagues (2010) Measuring breastfeeding self–efficacy among pregnant women referred to health centers of Ahvaz, only 2.5% of them have a high level of breastfeeding self-efficacy (11). Goodarzi and colleagues (2015) evaluate the impact of peer education on breastfeeding self-efficacy in primiparous women. They marked that 76.40% of control group have a low level of breastfeeding self-efficacy and 23.6% of them have a high level of breastfeeding self-efficacy(30). In another study Falah-Hassani and colleagues (2016) evaluated prevalence and risk factors for comorbid postpartum depressive symptomatology and anxiety. According to their results High levels of breastfeeding self-efficacy at 1th week postpartum, maternal self-esteem at 4 weeks postpartum and partner support at 4th weeks postpartum were significantly predicted a lower risk of comorbidity(31). In qualitative study Furman and colleagues (2013) evaluate breastfeeding among high-risk inner-city African-American mothers. According to the results they identified new themes, including self-esteem and self-efficacy that motivate breastfeeding(32).

In the current study, breastfeeding self-efficacy showed no significant association with mother age, infant age, mother job, husband job, maternal education, husband education, residency and family income, but showed significant association with self-esteem. Which is in congruence with the results obtained by some other studies (30, 33-36). However, it was in contradiction with the findings reported by Varaei and colleagues (2009). Also in kamalifar and colleagues study, physical symptoms, social dysfunction, age, education, spouse's job, economic status, duration of previous breastfeeding, and receiving breastfeeding education were related to breastfeeding self-efficacy(23), while in current study only method of delivery was significant related. This lack of consistency between the results of the current research and those obtained by Varaei study might be due to the fact that in the mentioned study, breastfeeding self-efficacy was evaluated immediately after delivery; however, in the present study and kamalifar study, was measured six months after delivery. Opposite with the results

of the current study, Thulier and Mercer (2009) as well as Rahmatnejad and Bastani (2012) and Yngve and Sjöström (2001), demonstrated that the socioeconomic levels are significant factors that affect the achievement of maternal and breastfeeding roles (28, 37, 38). of the health condition of individuals(35, 38) which is on the contrast with our study.

Exclusive and successful breastfeeding is affected by many physiological and psychological factors in mothers. Breastfeeding self-efficacy and maternal self-esteem are two of these factors, which are important psychological and motivational determinant for the continuation of breastfeeding (33, 39, 40). Findings demonstrated that educational intervention might enhance the personality dimensions score(41), and Having self-efficacy in breastfeeding and high maternal self-esteem is a vital factor for the continuation of this practice(39, 40). While many demographic variables, including socioeconomic situations, are unmodifiable, breastfeeding self-efficacy and self-esteem seems to be intrinsically a modifiable variables. This perception can provide a framework for the development and design of educational-counseling interventions by healthcare providers in order to improve breastfeeding outcomes(39, 40).

Limitations of the study

One limitation was the application of self-report questionnaires for data collection. Therefore, in order to gather factual information, participants were asked to honestly complete the questionnaires. Another limitation was the conditions of the study context, including light, ventilation, noise, mental spiritual feature, and maternal comfort, which could affect the responses of the subjects. Nonetheless, it was tried to provide a calm and equal environment for the mothers in order to relatively control these factors. Also the small stressful events of everyday life create anxiety, and cannot be evaluated or controlled.

Conclusion

According to the findings, maternal self-esteem is related to breastfeeding self-efficacy. Self-esteem and breastfeeding self-efficacy are potentially modifiable factors, which can predict the duration of breastfeeding and success level of exclusive breastfeeding. Therefore, it is recommended that the healthcare providers pay attention to these concepts and identify the mothers at the risk of early cessation of breastfeeding by studying the mother's breastfeeding self-efficacy and her self-esteem. In this regard, proper strategies could be designed to increase the breastfeeding self-efficacy and mother's self-esteem among this group of mothers and help them eliminate the barriers to breastfeeding. These measures would lead to positive results regarding the duration of breastfeeding and exclusive breastfeeding.

Ethical consideration: The study protocol was approved by the Ethics Committee of the Islamic Azad University of Mashhad (ID code: 638). The participants were informed about the study objectives and their written informed consents were obtained.

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