



ORIGINAL ARTICLE

Relationship Between Breastfeeding Self-efficacy, Breastfeeding Motivation, and Self-esteem

Emzirme Özyeterliliği, Emzirme Motivasyonu ve Benlik Saygısı Arasındaki İlişki

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Abstract

Objective: This study examined the relationship between breastfeeding self-efficacy, breastfeeding motivation, and self-esteem.

Method: This cross-sectional study was conducted with 260 postpartum women at Gazi University Hospital between November 20, 2022, and March 1, 2023. The data collection tools included a socio-demographic form, the breastfeeding self-efficacy scale, the breastfeeding motivation scale, and the Rosenberg self-esteem scale.

Results: In the study, the mothers' breastfeeding self-efficacy scale mean score was 56.11±5.34, the Rosenberg self-esteem scale mean score was 14.51±0.78, and the breastfeeding motivation scale mean score was 69.98±5.15. According to the structural model, the results demonstrated that there was a positive significant relationship between breastfeeding self-efficacy and breastfeeding motivation ($p<0.05$) and between breastfeeding self-efficacy and self-esteem ($p<0.05$).

Conclusion: The findings indicated that socio-demographic factors did not significantly influence breastfeeding self-efficacy, while social support and number of births were significant factors. It was determined that a significant relationship existed between breastfeeding self-efficacy and self-esteem.

Keywords: Breastfeeding self-efficacy, breastfeeding motivation, self-esteem, nursing, breastfeeding

Öz

Amaç: Bu çalışmada; doğum sonu dönemde kadınların emzirme öz-yeterliliği, emzirme motivasyonu benlik saygısı arasındaki ilişkinin incelenmesi amaçlanmıştır.

Yöntem: Kesitsel olarak planlanan çalışma Gazi Üniversitesi Hastanesi'nde 20 Kasım 2022-1 Mart 2023 tarihleri arasında güç analizi ile belirlenen 260 postpartum dönemdeki anne ile yapılmıştır. Veri toplama aracı olarak, sosyo-demografik form, emzirme öz-yeterlilik ölçeği, emzirme motivasyon ölçeği, Rosenberg benlik saygısı ölçeği kullanılmıştır.

Bulgular: Araştırmada annelerin emzirme öz-yeterlilik ölçek puan ortalaması 56,11±5,34, Rosenberg benlik saygısı ölçek puan ortalaması 14,51±0,78, emzirme motivasyon ölçek puan ortalaması 69,98±5,15 olarak belirlenmiştir. Araştırma sonucunda, emzirme öz-yeterliliği ile emzirme motivasyonu arasında ($p<0,05$) ve emzirme öz-yeterliliği ile benlik saygısı arasında pozitif anlamlı bir ilişki olduğu belirlenmiştir ($p<0,05$).

Sonuç: Araştırma sonuçları sosyo-demografik faktörlerin emzirme öz-yeterlilik üzerinde belirgin bir etkisinin olmadığı belirlenirken sosyal destek ve doğum sayısının belirgin bir etken olduğunu göstermektedir. Emzirme öz-yeterliliği ile emzirme motivasyonu arasında ve emzirme öz-yeterliliği ile benlik saygısı arasında anlamlı bir ilişki olduğu belirlenmiştir.

Anahtar Kelimeler: Emzirme öz-yeterliliği, emzirme motivasyonu, benlik saygısı, hemşirelik, emzirme

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Introduction

Breastfeeding offers numerous advantages for both the mother and infant's health and fosters maternal-infant bonding (1). It plays a crucial role in promoting survival and early childhood development (2). The World Health Organization advocates for breastfeeding, recommending that infants should be breastfed for the first six months, with continued breastfeeding up to age two alongside complementary foods (3). According to UNICEF's State of the World's Children 2021 report, approximately 44% of newborns are breastfed within the first hour after birth, while 42% of infants under six months are exclusively breastfed (2). In contrast, data from the Turkey Demographic and health survey 2018 indicates that only 41% of children under six months receive breast milk (4). Breastfeeding has numerous benefits for both mothers and infants. It stimulates uterine contractions, aids in uterine involution, and also assists in postpartum weight loss in mothers, reduces the incidence of diarrhea and respiratory infections in newborns, and contributes to the cognitive development of the infant (5-7).

Breastfeeding is influenced by several factors, which are both extrinsic and intrinsic. Extrinsic factors include hospital policies and practices regarding breastfeeding, access to breastfeeding counseling, the mother's social support system, workplace facilities for breastfeeding, societal attitudes toward breastfeeding, and cultural beliefs and practices related to breastfeeding (8). Intrinsic factors include maternal age, whether the pregnancy was intentional, maternal education, employment status, racial disparities, spousal support, maternal and infant health conditions, and the mode of delivery (9).

Among the intrinsic factors, recent emphasis has been placed on the concept of breastfeeding self-efficacy. Mothers who breastfeed confidently in the early postpartum period tend to have a positive attitude towards breastfeeding and exhibit high self-efficacy (10). Self-efficacy plays a pivotal role in motivation and behavior, influencing actions that can bring about significant changes in people's lives (11). Bandura's social cognitive theory provided the framework for Dennis and Faux (12) to develop the breastfeeding self-efficacy theory. They highlighted that a mother's desires, thoughts and actions regarding breastfeeding significantly impact breastfeeding self-efficacy, asserting that strong intrinsic motivation is crucial for initiating and sustaining breastfeeding. Such motivation is believed to establish a positive connection between self-efficacy and secure attachment during breastfeeding (13).

Main Points

- A statistically significant relationship was determined between the breastfeeding motivation and the breastfeeding self-efficacy levels in postpartum women.
- It was determined that an increase in self-esteem scores led to a decrease in breastfeeding self-efficacy scores.
- Prenatal breastfeeding education and programs that support mothers' psychological well-being will also help to develop breastfeeding self-efficacy.

Self-efficacy is intertwined with self-esteem and motivation. James et al. (14) emphasized the impact of mothers' self-efficacy on breastfeeding motivation, underscoring its role in overcoming breastfeeding-related challenges. Additionally, social and professional support was found to enhance women's breastfeeding self-efficacy (14). Kamalifard et al. (15) explored the relationship between breastfeeding self-efficacy, self-esteem and overall well-being, establishing a positive correlation between increased self-esteem and breastfeeding self-efficacy.

Despite an extensive review of existing literature, no prior studies were identified that predicted breastfeeding self-efficacy, motivation and self-esteem. Therefore, our study aimed to investigate the associations between breastfeeding self-efficacy, self-esteem and motivation in breastfeeding mothers, contributing to an understanding of these essential aspects of maternal and infant health.

Material and Method

Study Design

This cross-sectional study was undertaken to investigate the associations among breastfeeding self-efficacy, breastfeeding motivation and self-esteem in postpartum mothers. The research was conducted in the outpatient Clinics and Obstetrics and Gynecology Clinics at Gazi University Hospital. The study included a sample of 260 postpartum breastfeeding mothers who consented to participate and were under observation at the hospital from November 2022 to March 2023.

Data Collection Tools

Data collection for this study involved the use of four instruments: A socio-demographic form, the breastfeeding self-efficacy scale, the breastfeeding motivation scale and the Rosenberg self-esteem scale.

Socio-demographic Form

This form, specifically developed by the researcher, comprised a total of 28 questions aimed at gathering information about the socio-demographic characteristics of the participating mothers. Prior to its use in the study, three experts in the field of obstetrics and gynecology were consulted to assess the content validity of the form. The form underwent adjustments based on the feedback from these experts, resulting in its final version.

Breastfeeding Self-efficacy Scale

The breastfeeding self-efficacy scale was modified by eliminating 18 items from its original version, resulting in the creation of a 14-item breastfeeding self-efficacy scale-short form (16). The Turkish validity and reliability study of this shortened form was carried out by Alus Tokat et al. (17). The scale uses a five-point Likert scale across its 14 items, with a potential score ranging from 14 to 70. A higher score indicates greater breastfeeding self-efficacy. In this study,

the scale demonstrated a Cronbach's alpha coefficient of 0.87, reflecting its reliability.

Breastfeeding Motivation Scale

The breastfeeding motivation scale was originally developed by Kestler-Peleg et al. (13) on the basis of the principles of the theory of self-determination. Its validity and reliability in the Turkish context were established through the work of Mizrak Sahin et al. (18). The scale adopts a four-point Likert-type scoring system (13), where each item is assessed on a scale ranging from 1 = "strongly disagree" to 4 = "strongly agree", translating to a score of 1-4 points (18). In this study, the Cronbach's alpha coefficient for the scale was calculated to be 0.71, indicating its reliability.

Rosenberg Self-esteem Scale

The Rosenberg self-esteem scale, developed by Winch Robert (19) in 1965, serves as a tool to gauge individuals' self-worth by capturing their positive and negative self-perceptions. Çuhadaroğlu (20) conducted the Turkish validity and reliability study of this scale. The scale employs a four-point Likert-type scoring system, and consists of 63 questions, including multiple-choice questions, which encompass 12 sub-dimensions. In the present study, the self-esteem sub-dimension was used, which consists of 10 questions. In the Turkish validation and reliability study of the Rosenberg self-esteem scale, scores between 0 and 1 indicated high-level self-esteem, scores between 2 and 4 denoted medium-level self-esteem, and scores between 5 and 6 signified low-level self-esteem. The reliability of the scale, as measured by Cronbach's alpha, was established at 0.85 in the Turkish context (20). In this study, the Cronbach's alpha coefficient was calculated to be 0.81, confirming its reliability.

Statistical Analysis

The information obtained from this research was subjected to comprehensive analysis using a variety of statistical methods. This included frequency analysis, mean comparison tests, and correlation tests. To ensure the applicability of these tests, normal distribution and variance homogeneity assumptions were assessed. The Shapiro-Wilk test examined the normality assumption, while the Levene test assessed variance homogeneity. The t-test/Welch test and Mann-Whitney U test was employed to make group comparisons, along with the Kruskal-Wallis H test, suitable for comparing three or more independent groups. In cases where significant results emerged, Dunn's test was applied with Bonferroni correction to account for multiple comparisons. Structural equation modeling was initially utilized to assess the influence of self-esteem and breastfeeding motivation on breastfeeding self-efficacy. However, the breastfeeding motivation scale was excluded from further analysis because the model's statistical results were unattainable. Subsequently, the structural equation model between the Rosenberg self-esteem scale and the breastfeeding self-efficacy scale was evaluated using the DWLS estimator. In hypothesis testing, descriptive statistics

such as arithmetic mean, standard deviation, interquartile range, and minimum and maximum values were included, depending on the nature of the test. Spearman correlation analysis was also employed, with a significance level set at $p < 0.05$ to determine statistical significance.

Ethics of the Study

Ethical considerations were carefully addressed throughout the research process. Prior to commencing the study, formal approval was secured from the Atılım University Human Research Ethics Committee on October 24, 2022, with reference number 47714. Subsequently, necessary permissions were obtained on September 19, 2022 from Gazi University Hospital, the site at which the research would be implemented, with permission number 456724. In addition, written permission to use the assessment scales implemented in the study was obtained from the researchers responsible for conducting the Turkish validity and reliability assessments of these scales. Detailed information about the study's objectives was provided to all participating mothers to promote transparency and ensure informed participation. They were asked to complete a voluntary consent form before proceeding with the data collection process, and written consent was obtained from each participant.

Results

Table 1 provides an overview of the socio-demographic characteristics of mothers in the study. It shows that 51.92% of the mothers had completed university education, 77.69% had experienced cesarean deliveries, 70.38% had received prenatal breastfeeding education, and 66.92% had initiated breastfeeding within the first 30 minutes to one hour after birth. Notably, 98.46% of the participants had introduced breast milk as the first source of nutrition for their infants, while only 6.15% had encountered breastfeeding difficulties. Additionally, 5.38% had sought breastfeeding support, and the vast majority, 95% of the mothers, had received social support. The average parity among participants was calculated as 1.72 ± 0.87 .

Table 2 presents the correlations between the scales used in the study. It reveals that no significant correlation was observed between self-esteem, breastfeeding self-efficacy and breastfeeding motivation levels. However, a statistically significant relationship was established between breastfeeding motivation and breastfeeding self-efficacy levels ($r = 0.385$; $p < 0.05$).

Table 3 provides statistical insights into the structural model between self-esteem and breastfeeding self-efficacy. The corresponding graphic representation of the model is depicted in Figure 1. The structural model outcomes indicate that self-esteem level significantly influenced breastfeeding self-efficacy ($p < 0.05$). It is noteworthy that the path coefficient within the model was negative ($\text{Beta} < 0$), suggesting that an increase in self-esteem scores corresponded to a decrease in breastfeeding self-efficacy scores.

Table 1.
Frequency Distribution Table for Socio-demographic Characteristics (n=260)

Description	Group	n	%
Education	Primary	15	5.77
	Secondary	32	12.31
	High	78	30.00
	University	135	51.92
Working status	Working	137	52.69
	Not working	123	47.31
Mode of delivery	Vaginal	58	22.31
	Cesarean/section	202	77.69
Receiving prenatal breastfeeding education	Yes	183	70.38
	No	77	29.62
Time to initiate breastfeeding	First 30 min	59	22.69
	30 min-1 hr	174	66.92
	2 hr	26	10.00
	Not initiated	1	0.38
Postnatal nutrition	Breastmilk	256	98.46
	Formula milk	2	0.77
	Other	2	0.77
Breastfeeding problem	Yes	16	6.15
	No	244	93.85
Breastfeeding support application status	Yes	14	5.38
	No	246	94.62
Receiving support during breastfeeding	Yes	247	95.00
	No	13	5.00
		Mean ± SD	Min-max
Age		30.04±4.52	21-43
Parity		1.72±0.87	1-5

SD=standard deviation

Table 2.
Scale Correlations

Scales*		Breastfeeding self-efficacy	Rosenberg self-esteem	Breastfeeding motivation
Breastfeeding self-efficacy	r	1		
	p			
Rosenberg self-esteem	r	-0.014	1	
	p	0.822		
Breastfeeding motivation	r	0.385	0.060	1
	p	<0.001	0.337	

**=Spearman's correlation coefficient*

Table 3.
Path Coefficients for Rosenberg Self-esteem and Breastfeeding Self-efficacy

Path	Beta	Standardized beta	Test value	p
RSES → BSES	-0.893	-0.384	-5.831	<0.001

Beta=path coefficient

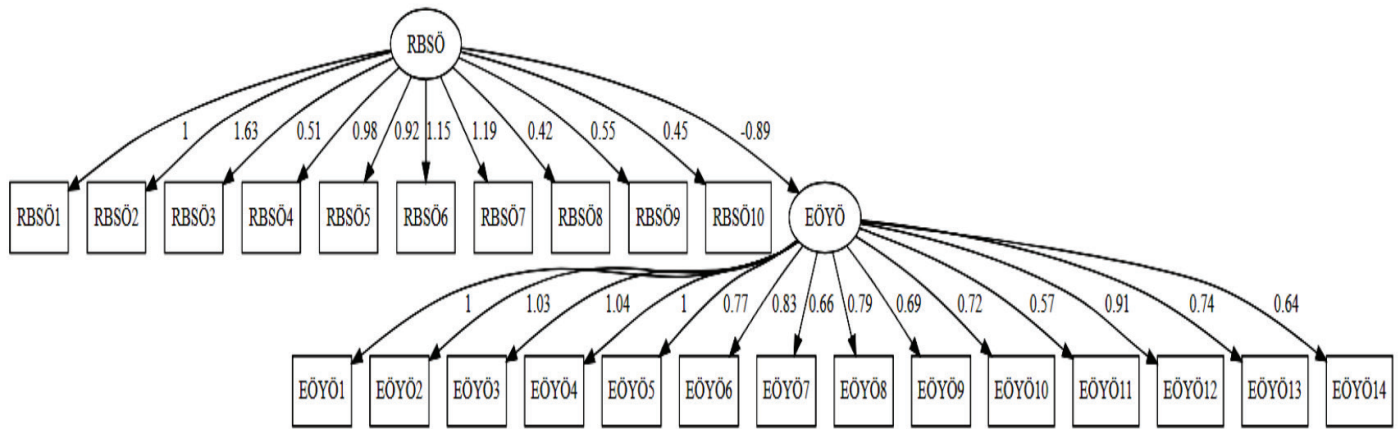


Figure 1.
Structural equation model diagram

Discussion

This study explored the interplay between breastfeeding self-efficacy, breastfeeding motivation and self-esteem among postpartum mothers. The findings revealed significant positive associations between breastfeeding self-efficacy and both breastfeeding motivation ($p < 0.05$) and self-esteem ($p < 0.05$). A structural equation model was constructed to assess these relationships. This model, however, was not able to include breastfeeding motivation as a predictive factor.

Recent years have seen a surge in research on breastfeeding self-efficacy (21-24), underscoring its substantial impact on successful breastfeeding. Mothers with heightened self-confidence in breastfeeding tend to engage in longer durations of breastfeeding (25). In this study, the mean breastfeeding self-efficacy score among the mothers participating was determined to be 56.11 ± 5.10 . When compared to similar studies in the literature where breastfeeding self-efficacy scores ranged from 40.63 to 60.80 (26-28), our findings suggest that there was a moderate level of breastfeeding self-efficacy among the postpartum mothers in our sample. Importantly, socio-demographic factors have been found to influence breastfeeding self-efficacy (29,30). The existing literature explores a range of factors such as maternal age, education, residence, employment status, social security, and family structure, showing varied outcomes (31-34). This study found no significant disparities in breastfeeding self-efficacy based on maternal age, education level, or employment status ($p > 0.05$), possibly due to the homogeneous nature of the central hospital setting.

In addition to socio-demographic factors, obstetric characteristics such as the number of births and mode of delivery have also been linked to breastfeeding self-efficacy (31,34). The number of births has been reported to impact maternal breastfeeding self-efficacy postpartum (35). Various studies have elucidated the relationship between breastfeeding self-efficacy and parity (31,36,37), with multiparous mothers found to exhibiting higher levels of breastfeeding self-efficacy (38). In our study, a statistically significant correlation was detected between the number of births and breastfeeding self-efficacy among postpartum mothers ($r = 0.399$; $p < 0.05$).

The mode of delivery, in conjunction with parity, has been shown to influence breastfeeding self-efficacy, although research findings on the mode of delivery vary (34,39,40). The present study did not reveal any significant difference in breastfeeding self-efficacy based on the mode of delivery ($p > 0.05$). Psychological factors, including social support, have also been demonstrated to affect breastfeeding self-efficacy (41). Social support, by reducing stress and anxiety levels, has been shown to positively influence breastfeeding self-efficacy (41-43). In line with the literature, our study found that women who received support from their spouses and families had significantly higher breastfeeding self-efficacy levels than those who did not receive support ($p < 0.05$).

Furthermore, breastfeeding motivation, as an additional psychological determinant, has been highlighted as a positive contributor to maternal well-being and its impact on breastfeeding self-efficacy (12). High motivation among mothers has been associated with better management

of the breastfeeding process and elevated breastfeeding self-efficacy (18). The present study corroborated these findings, indicating a significant relationship between breastfeeding self-efficacy and breastfeeding motivation ($p < 0.05$). According to Bandura's theory, individuals with low self-efficacy tend to reduce self-confidence, leading to lower self-esteem. Studies in the literature have supported this notion by demonstrating a relationship between self-efficacy and self-esteem (44,45). In our study, we found a significant relationship between breastfeeding self-efficacy and all the dimensions of self-esteem, as outlined in Bandura's theory ($p < 0.05$). In summary, this study showed that socio-demographic factors had no significant impact on breastfeeding self-efficacy, whereas social support and parity were significantly related to breastfeeding self-efficacy. Additionally, significant associations were observed between breastfeeding self-efficacy, breastfeeding motivation, and self-esteem.

Conclusion

In alignment with the results of our study, it is recommended to enhance prenatal breastfeeding education programs by incorporating elements that focus on the psychological well-being of mothers. Such programs should encompass strategies to support the emotional and mental aspects of mothers during the breastfeeding journey. Nurses and healthcare providers play a pivotal role in this process and should actively involve family members in training and practices, fostering an environment of familial and spousal support for breastfeeding mothers. Additionally, it would be beneficial to implement assessment scales during both the prenatal and postnatal periods to identify specific areas where interventions can enhance mothers' breastfeeding self-efficacy and motivation. Furthermore, there is a need to expand the body of research focusing on self-esteem and breastfeeding self-efficacy in pregnant and postpartum women. More studies should be undertaken to deepen our understanding of these factors and their interplay, thus enabling healthcare professionals to provide more effective support. Considering our study's outcomes, we recommend that future research endeavors consider conducting multicenter studies with larger sample sizes to account for data heterogeneity and enhance the generalizability of findings. This approach will help further our understanding of the dynamics surrounding breastfeeding self-efficacy, motivation and self-esteem among postpartum mothers and potentially lead to more accurately targeted interventions and support strategies.

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Ethics Committee Approval: Ethics committee approval was received for this study from the Human Research Ethics Committee of the Atılım University (date: 24/10/2022, permission: 47714).

Informed Consent: Verbal consent was obtained from the participants in this study.

Author Contributions: Conception – B.Ü.Ç., C.A.T., H.B.; Design – C.A.T., H.B.; Data Collection and/or Processing – B.Ü.Ç.; Analysis and/or Interpretation – B.Ü.Ç., C.A.T., H.B.; Literature Review – B.Ü.Ç., C.A.T., H.B.; Writing – B.Ü.Ç., C.A.T.

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