



# Effects of mothers' postpartum support needs and the level of support they received on breastfeeding self-efficacy

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## Abstract

**Aim:** This descriptive and correlational study was conducted to examine the effects of postpartum support needs of mothers and the support they received on breastfeeding self-efficacy.

**Materials and Methods:** The study was conducted in 431 mothers with 4-8 weeks old babies, who presented to Karaman city-center family health units between November 2019 and June 2020. For data collection, a personal information form, the Postnatal Support Scale (PSS), and the Breastfeeding Self-Efficacy Scale-Short Form (BSES) were used. In independent groups, t-test, one-way analysis of variance, Pearson correlation analysis, and multiple regression analysis were used.

**Results:** The mean BSES score of the mothers included in the research was  $57.53 \pm 11.36$ , the mean PSS Importance of Needs subdimension score was  $168.48 \pm 20.32$ , and the mean PSS Support Received subscale score was  $162.25 \pm 31.25$ . In the study, it was found that the BSES score was affected by the PSS Support Received subdimension score ( $p < 0.001$ ).

**Conclusion:** In conclusion, as the postnatal support needs of the mothers increased, their breastfeeding self-efficacy scores decreased, and as the received postnatal support increased, their breastfeeding self-efficacy scores increased, as well. Midwives and other health professionals should provide support for the needs of mothers in the postpartum period, and also include family, relatives, and friends in this support process. In addition, midwives should encourage mothers and social support providers regarding breastfeeding and provide informative support.



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## Introduction

The postpartum period is a very sensitive period for the family and community health, and during this period, many physiological and psychological changes are experienced by the mother and the baby [1,2]. In the postpartum period, several responsibilities, such as the simultaneous need for self-care and the care of the infant, await the mother. Support systems that will be with the mother during this process are very important in order to provide the care needed by the mother and the baby and for the mother to adapt to the parenting role [1-3].

Social support is a source of interaction that provides mutual assistance and motivation [4]. Social support, which has positive contributions to the general health of the society, has gained importance in the field of maternal health in recent years [5-7]. Maternal well-being in the postpartum period depends on the characteristics of the mother,

the care given by health professionals, and the social support from friends and family [8,9]. It is thought that with the support provided in the postpartum period, the mother will feel self-sufficient and have peace, and in return, the act of breastfeeding, which has an important role in establishing mother-infant communication [10-13], will be positively affected.

Although the act of breastfeeding is a crucial element in terms of maternal and infant health (and therefore public health) and also due to its role in strengthening the communication between mother and baby [14], only 36% of 0-6-month-old babies in the world are fed with breast milk [15]. In Turkey, according to the 2018 data of the Turkey Demographic and Health Survey (TDHS), 59% of the babies are fed only with breast milk in the first two months of life, which decreases rapidly with the age of the baby, and decreases to 14% in 4-5-month-old babies [16]. During the first six months of feeding, there are many reasons causing interruption in breastfeeding, such as the mother's return to work in the postpartum period, the mother's

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thinking that the milk is insufficient and the baby is not satisfied, the unwillingness to breastfeed [17-20], and the lack of support systems around the mother to encourage breastfeeding [21,22].

Another reason why breastfeeding cannot be continued successfully may be that the mother's breastfeeding self-efficacy is low, e.g., she feels that she will be unsuccessful or inadequate in breastfeeding [23-25]. Mother's self-confidence about breastfeeding plays a major role in the interruption of breastfeeding or the failure to continue breastfeeding successfully. Perception of breastfeeding self-efficacy is the mother's feeling of self-sufficiency in breastfeeding [26]. Mothers with a high perception of breastfeeding self-efficacy face fewer problems during breastfeeding and their breastfeeding success increases accordingly. Mothers with low breastfeeding self-efficacy may encounter more problems during breastfeeding or the duration of breastfeeding may be shortened [25,27].

Studies on breastfeeding self-efficacy have been conducted in Turkey, but there exists no study examining the need for support, the support received, and breastfeeding self-efficacy in the postpartum period [2,28,29]. It is considered that our study, which was conducted with the aim of examining the effects of postpartum support needs and the support received on breastfeeding self-efficacy, will contribute to the literature.

#### Research questions

1. Do mothers' descriptive characteristics (sociodemographic, obstetric, and infant-related characteristics) have an effect on breastfeeding self-efficacy?
2. Does the postpartum support need of mothers have an effect on breastfeeding self-efficacy?
3. Does the level of support received by mothers in the postpartum period have an effect on breastfeeding self-efficacy?

## Materials and Methods

### Type of research

This research was conducted as descriptive and cross-sectional.

### Population and sample of the study

There are 11 family health centers (FHCs) in total in Karaman city center. The universe of the research consists of mothers with 4-8 weeks old babies who presented to all (11) family health centers (FHCs) in the city center of Karaman province. Data were collected from all FHCs according to the disproportionate stratified sampling method. The sample of the study, using the G\*Power (3.1.9.2) program (The G\*Power Team, Düsseldorf, Germany), one unit difference, 85% power, 0.05 margin of error, and BSES mean score ( $57.16 \pm 6.92$ ) known from the study of İnce et al.) have been taken into account. (2017) and thus the study was completed with 431 people [30].

### Ethical considerations of the study

Care was taken to comply with ethical principles at every stage of the research, and all procedures were carried out

in accordance with the 1964 Declaration of Helsinki and its subsequent amendments. Ethical permission (2019-1228) was obtained from the Non-Invasive Clinical Research Ethics Committee of Konya Selcuk University Faculty of Health Sciences before the implementation of the study. Written permission from the institution where the study was conducted (04.11.2019/ 87142773-774.9) and written consent from the postpartum women who will voluntarily participate in the study were obtained, and the scale usage permission for the PSS and BSES was obtained from the respective authors.

### Data collection tools

Data were collected with the personal information form, the Postpartum Support Scale (PSS), and the Postnatal Breastfeeding Self-Efficacy Scale-Short Form (BSES). The study included mothers over 18 years of age, who could speak Turkish, who had no visual, speech, and hearing impairment, who had a healthy newborn, and who were at postpartum 4-8 weeks. Mothers with breastfeeding problems (cleft palate, nipple problems, etc.) were not included in the study.

### Personal information form

The literature-based personal information form (31-33), includes 21 items in three sections, namely, sociodemographic (education status, family type, etc.), obstetric (number of births, mode of delivery, etc.), and postpartum characteristics (feeding mode of the infant, support providers, etc.).

### Postpartum support scale (PSS)

The PSS was developed by Longston, Usui, Birkimer, McBride (34), and its validity and reliability study in Turkey was performed by Ertürk in 2007 [28]. The PSS, which determines the postnatal social support needs of mothers and the social supports available, is an easily comprehensible scale and can be used throughout the postpartum period. It has 34 items. The items are 8-point Likert type: "not important" (0) - "very important" (7) [28]. The scale consists of two subscales: "Importance of the Need" and "Support Received" for this need. The questions in the scale are presented separately for both sections and a separate total score is obtained for both sections. Higher total scores indicate greater importance of the need for support and greater support received.

The PSS consists of four subdimensions, namely, financial support (items of the scale; 1, 5, 8, 9, 11, 19, 22, 23 and 30), emotional support (items of the scale; 2, 10, 12, 13, 15, 20, 25, 27, 33 and 34), informational support (items of the scale; 3, 6, 7, 14, 17, 21, 24, 26, 28 and 31), and comparison (items of the scale; 4, 16, 18, 29 and 32). The lowest score that can be obtained for every two parts (Importance of the Need and Support Received) of the scale is 0, and the highest score is 238. According to the categorization of the scores obtained in the dimension of Importance of the Need, the need for postpartum support was evaluated as "not important" for women with a score of 130 and below, "important" for women with a score of 131-150, and "very important" for women with a score

of 151 and above [28]. According to the categorization of the points received in the “Support Received” dimension, the postpartum support was evaluated as “no support” for women who scored 99 points and below, “there is support” for those who scored between 100 and 134, and “substantial support” for women who scored 135 and above. The total Cronbach Alpha coefficient of the "Importance of the Need" subscale of the PSS is 0.88, and the total Cronbach Alpha coefficient of the "Support Received" subscale is 0.95 [28]. In this study, the Cronbach's alpha reliability coefficient of the PSS was found to be 0.91 for the “Importance of the Need” subscale and 0.96 for the “Support Received” subscale.

#### *Breastfeeding self-efficacy scale-short form (BSES)*

The original BSES is a 33-item scale developed by Dennis and Faux (1999) to evaluate mothers' breastfeeding self-efficacy levels [24]. Later, in 2003, a 14-item short form of the scale was developed. The BSES is a 5-point Likert-type scale (1 = “not sure at all” and 5 = “always sure”). The lowest score that can be obtained from the scale is 14, and the highest score is 70. Higher scores indicate higher breastfeeding self-efficacy. The Turkish validity and reliability study of the scale was carried out by Aluř Tokat and Okumuř (2009), and the Cronbach alpha reliability coefficient of the scale was found to be 0.87 [10]. In this study, the Cronbach alpha reliability coefficient of the BSES was found to be 0.97.

#### *Dependent and independent variables of the research*

##### *Dependent variables*

- BSES score average,

##### *Independent variables*

- PSS score average,
- Socio-demographic characteristics,
- Obstetrics and breastfeeding-related features.

#### *Data collection*

Research data were collected in FHCs based on the self-report of the mothers. Before the interview, the mothers were informed about the content of the study and their written consents were obtained, and it took about 10-15 minutes to collect the data.

#### *Data analysis*

SPSS 20.0 (SPSS; Chicago, IL, USA) version for Windows, package program was used to evaluate the data obtained from the research. Number, percentage, mean, and standard deviation were used in the descriptive statistics of the data. According to the normality plots with tests, the distribution of the mean score of the BSES, which is the dependent variable of the research, is normally distributed. Normality analysis was performed using the Skewness (-0.92) and Kurtosis (-0.24) test. Differences between groups were evaluated using independent groups t-test, one-way analysis of variance (meaningful group was test with Bonferroni correction and Tukey test for Post Hoc multiple

comparisons), Pearson correlation analysis, and multiple regression analysis. The significance level was accepted as  $p < 0.05$ .

#### **Results**

The distribution of the descriptive characteristics of the mothers is presented in Table 1. It was found that 49.7% of the mothers and 49.4% of their spouses were high school graduates, and 97% of the spouses were working. It was found that 75.6% of the mothers perceived their income as “income equal to expenditure”, 91.2% of them had nuclear family type, and 70.3% of them lived longest in the city.

When the obstetric characteristics of the mothers were examined, it was found that 63.8% of them had two or more deliveries and 67.7% of them had vaginal delivery. When the characteristics of the mothers regarding the postpartum period were examined, it was seen that 80.5% of the babies were only breastfed, 69.6% of them started breastfeeding right after the birth, and 57.8% were supported by the mother and mother-in-law in baby care and breastfeeding.

The mean PSS and BSES scores of the mothers in the study group and the findings regarding the grouping of the scores are given in Table 2. In our study, while the total score of the BSES was  $57.53 \pm 11.36$ , the mean PSS Importance of the Need score was  $168.48 \pm 20.32$ , and the importance level of the need for support was identified as “very important” since the total score in the Importance of Need subscale was over 151 points. The mean score of the Support Received subscale on the PSS was  $162.25 \pm 31.25$ , and the level of support was identified as “substantial” because the support dimension score received was above 135 points.

The findings regarding the comparison of the mean BSES scores in relation with the descriptive characteristics of the mothers are given in Table 3. When the mothers' BSES scores were analyzed according to the education level of the mothers, it was found that the BSES mean scores of the mothers with university or postgraduate education was higher than the mothers with the primary or high school education ( $p < 0.05$ ).

When the mothers' BSES scores were analyzed according to their income perception status, it was found that the mean BSES score of the mothers who perceived their income as equal to their expenditure and those who perceived their income being more than their expenditure was higher than that of mothers who perceived their income as less than their expenditure ( $p < 0.05$ ).

When the BSES scores were analyzed according to the number of births, it was found that the mean score of the mothers who gave two or more births was higher than those who gave a single birth ( $p < 0.01$ , Table 3). When the BSES scores were analyzed according to the planned pregnancy status, it was found that the mean score of the mothers with a planned last pregnancy was higher than those whose last pregnancy was not planned ( $p < 0.01$ , Table 3). When the BSES scores were analyzed according to the type of delivery, it was found that the mean score of the mothers with the last delivery as vaginal was higher than those who's the last delivery as cesarean section ( $p < 0.01$ , Table 3).

**Table 1.** Distribution of descriptive characteristics of mothers (n=431).

Descriptive Parameters	n	%	Descriptive Parameters	n	%	Descriptive Parameters	n	%
Education Status		Spouse's Education Status			Time of First Breastfeeding			
Primary School	79	18.3	Primary School	76	17.6	Right after Delivery (first 30 minutes)	300	69.6
High school	214	49.7	High school	213	49.4	Within 31- 60 minutes	124	28.8
University or above	138	32.0	University or above	142	33.0	After 61 minutes	7	1.6
Working Status		Spouse's Working Status			Feeding the Infant			
Working	127	29.5	Working	418	97.0	Breastmilk	347	80.5
Not-working	304	70.5	Not-working	13	3.0	Breastmilk + formula	84	19.5
Spouse's Profession		Perception of Income			Postpartum support provider			
Civil servant	131	30.4	Income less than expenses	67	15.5	Mother/Mother-in-Law	249	57.8
Self-employed	131	30.4	Income equals expenses	326	75.6	Spouse	141	32.7
Worker	169	39.2	Income more than expenses	38	8.9	Sister, neighbor, friends and relatives	41	9.5
Social Security		Number of births			Intended breastfeeding time			
Yes	397	92.1	One	156	36.2	First 6 months	51	11.8
No	34	7.9	Two or more	275	63.8	One year	65	15.1
					Up to 2 years			
					315			
					73.1			
Family Type		Planned last pregnancy?			Night-time Breastfeeding			
Nucleus Family	393	91.2	Yes	328	76.1	Yes	407	94.4
Extended Family	38	8.8	No	103	23.9	No	24	5.6
The Longest Place of Residence		Miscarriage History			Gender of the Infant			
Village/District	128	29.7	Yes	50	11.6	Girl	204	47.3
City	303	70.3	No	381	88.4	Boy	227	52.7
Abortion History		Mode of Last Delivery			Age of the Infant (months)			
Yes	22	5.1	Vaginal	292	67.7	1 month	158	36.7
No	409	94.9	Cesarian	139	32.3	2 months	273	63.3

When the BSES scores were analyzed according to history of miscarriage or abortion, it was found that the mean score of mothers without a history of miscarriage or abortion was higher than those with a history of miscarriage or abortion ( $p < 0.05$ , Table 3). When the BSES scores of the infants were analyzed according to the infant's nutritional status, it was determined that the mean score of the mothers who fed their infants with breast milk was higher than the mothers who fed their infants with breast milk plus formula ( $p < 0.001$ , Table 3). When the BSES scores were analyzed according to the time of first breastfeeding after birth, it was found that the mean BSES score of the mothers who breastfed their infants immediately after birth was higher than those of mothers who breastfed their infants within the first 31-60 minutes and after 60 minutes ( $p < 0.05$ ). When the BSES was analyzed according to the person from whom the mothers received support for baby care/breastfeeding, it was found that the mean BSES score of the mothers who received support from their spouses was higher than those who received support from others (mother, mother-in-law, sister, etc.) ( $p < 0.05$ ).

Table 4 shows the relationship between some variables of mothers and babies and their BSES and PSS scores, and the multiple regression analysis evaluation of independent variables on mothers' BSES scores.

It was determined that there was a weak and positive cor-

relation between the BSES scores of the mothers and their age, the age of the spouse, and monthly weight gain of the baby (weight gain  $p < 0.001$ , age  $p < 0.01$ , age of the spouse  $p < 0.05$ , Table 4). As the age of the mother, the age of the spouse, and the monthly weight gain of the baby increased, the BSES scores of the mothers increased.

It was determined that there was a moderate negative significant relationship between the mothers' BSES scores and PSS Importance of Needs subscale scores ( $p < 0.001$ ). As the mothers' Importance of Needs subscale scores increased, their BSES scores decreased (Table 4).

It was determined that there was a high, positive significant correlation between the BSES scores of the mothers and PSS Support Received subscale ( $p < 0.001$ ). As the Support Received subscale scores of the mothers increased, so did the BSES scores (Table 4).

The order of importance (from the most important to the least important) according to the beta coefficient of the 11 independent variables that have a significant effect on the BSES score of the mothers were the feeding mode of the infant, PSS Support Received subscale score, duration of breastfeeding of the previous baby, age ( $p < 0.001$ ), nighttime breastfeeding status ( $p < 0.01$ ), expected duration of breastfeeding, number of births, history of abortion, monthly weight gain of the baby, spouse's occupation, and the last delivery mode ( $p < 0.05$ ).

**Table 2.** Postpartum Support Scale (PSS) and Breastfeeding Self-Efficacy Scale-Short Form (BSES) scores of the mothers (n=431).

Scale and Subdimensions		Min-Max	$\bar{x} \pm SD$
BSES Total Score		25-70	57.53 $\pm$ 11.36
PSS Total and Subdimensions			
PSS Importance of the Need Subscale Total Score		91-234	168.48 $\pm$ 20.32
Importance of the Need Subscale	Financial Support	26-61	45.77 $\pm$ 6.50
	Emotional Support	18-70	50.53 $\pm$ 7.13
	Information Support	20-70	48.91 $\pm$ 7.31
	Comparison	6-35	23.27 $\pm$ 4.12
PSS Support Received Total Score		46-234	162.25 $\pm$ 31.25
Support Received Subscale	Financial Support	9-63	38.63 $\pm$ 10.02
	Emotional Support	12-70	52.03 $\pm$ 11.45
	Information Support	10-70	47.01 $\pm$ 8.94
	Comparison	1-35	24.58 $\pm$ 4.74
PSS Groups		n	%
Importance of the Need			
Not important ( $\leq 130$ )		8	1.9
Important (131-150)		86	20.0
Very Important ( $\geq 151$ )		337	78.2
Support Received			
No Support ( $\leq 99$ )		19	4.4
Support exists (100-134)		60	13.9
Too much support ( $\geq 135$ )		352	81.7

## Discussion

In the postpartum period, social support not only helps mothers cope with stress, but also plays a key role in important issues such as strengthening family ties and taking firm steps for breastfeeding. It is seen that the awareness of social support, which has important effects on maternal health and infant health, is increasing [35,36].

In our study, mothers' BSES scores increased as the age of the mother, the age of the spouse, and the monthly weight gain of the baby increased. Akkoyun and Taş (2016) reported that there was a weak, positive, significant relationship between the baby's age, the mother's average age, and the average number of pregnancies and the BSES score of the mothers, which agrees with the present study in terms of the mother's mean age ( $p < 0.05$ ) [37]. It is thought that as the age of the mother and spouse increases, their experience increases, and therefore the self-efficacy of breastfeeding increases. It is also thought that the baby's weight gain is reflected as positive feedback for the mother, and thus, the breastfeeding process is more satisfying for the mother, and accordingly, breastfeeding self-efficacy increases.

In our study, the Importance of the Support Need and the Support Received subscale scores decreased as the age of the mothers and the spouses increased. It is thought that

with the increase in the age of the mother and the spouse, the experience in matters such as baby care and breastfeeding in the postpartum period increases, and these gains gained over the years reduce the needs of the mothers, and also, the social support offered decreases accordingly because mothers consider themselves sufficient.

In our study, it was determined that as the Importance of Support Needs of the mothers increased in the postpartum period, their breastfeeding self-efficacy decreased, while their breastfeeding self-efficacy increased with the increase in Support Received. While the act of breastfeeding can be affected by many reasons in the postpartum period, breastfeeding self-efficacy of the mother comes first among these reasons [23,24]. In the study conducted by Zhu et al. (2014), it was determined that the social support provided to the mother is an important indicator for breastfeeding self-efficacy [38]. As a result of our study findings, it was determined that the postpartum support needs of mothers and the support they received were effective on breastfeeding self-efficacy, and breastfeeding self-efficacy was increased by supporting mothers in the postpartum period, and therefore, it is thought that an important contribution to the literature was provided.

Baby's feeding mode, Support Received subscale score, age ( $p < 0.001$ ), nighttime breastfeeding status ( $p < 0.01$ ), expected breastfeeding duration, number of births, history of abortion, monthly weight gain of the baby, occupation of the spouse, and the type of last delivery ( $p < 0.05$ ) affect mothers' breastfeeding self-efficacy score by 81%. The way babies are fed is the most important determinant of mothers' breastfeeding self-efficacy. Breastfeeding self-efficacy scores of the mothers who feed their babies with breast milk are higher than those who feed their babies with breast milk plus formula. The independent variable that poses the greatest risk to the mother's breastfeeding self-efficacy is feeding the baby with breast milk plus formula (Table 4). In the literature, there exist studies agreeing with the present findings, that is, studies reporting statistically significant relationship between infant feeding style and the BSES [30,39].

It can be said that mothers' feeding their babies only with breast milk during the postpartum period increases mothers' breastfeeding satisfaction, and thus mothers' breastfeeding self-efficacy is positively affected. The mother's breastfeeding at night increases the secretion of milk and causes the mother to wake up more rested, and in this way, it is thought that mothers are more successful and self-confident in terms of breastfeeding. In addition, mothers who are successful in breastfeeding are more motivated to continue breastfeeding by receiving positive feedback regarding the breastfeeding action with the observation of baby's weight gain, and thus the breastfeeding period is prolonged with these positive feedbacks, and therefore breastfeeding self-efficacy increases. With the increase in the support provided to mothers in the postpartum period, mothers do not feel alone in many important responsibilities, and it is thought that mothers who share physical-emotional responsibilities with their support providers can spare more time for breastfeeding and will be more self-confident in breastfeeding, and this allows breastfeeding self-efficacy to increase. It is thought that mothers whose

**Table 3.** Comparison of the mothers' descriptive characteristics and Breastfeeding Self-Efficacy Scale-Short Form (BSES) scores (n=431).

Descriptive Characteristics	n	BSES Total Score $\bar{x} \pm SD$	Descriptive Characteristics	n	BSES Total Score $\bar{x} \pm SD$
<b>Education Level</b>			<b>Spouse's Education Status</b>		
Primary School <sup>a</sup>	79	54.03 ± 12.85	Primary School <sup>a</sup>	76	55.25 ± 11.83
High School <sup>b</sup>	214	56.55 ± 11.46	High School <sup>b</sup>	213	55.95 ± 12.15
University/Graduate School <sup>c</sup>	138	61.07 ± 9.24	University/Graduate School <sup>c</sup>	142	61.13 ± 8.79
F		11.805	F		11.257
p (difference)		<0.001 (a, b<c)	p (difference)		<0.001 (a, b<c)
<b>Working Status</b>			<b>Spouse's Working Status</b>		
Working	127	60.17 ± 9.41	Working	418	57.67 ± 11.28
Not-working	304	56.43 ± 11.92	Not-working	13	53.23 ± 13.41
t		3.458	t		1.389
p		0.001	p		0.166
<b>Spouse's Occupation</b>			<b>Income Level Perception</b>		
Civil servant <sup>a</sup>	131	60.06 ± 9.73	Income less then expenses <sup>a</sup>	67	53.36 ± 12.16
Self-employed <sup>b</sup>	131	58.19 ± 11.56	Income equals expenses <sup>b</sup>	326	58.07 ± 11.11
Worker <sup>c</sup>	169	55.07 ± 11.92	Income more than expenses <sup>c</sup>	38	60.32 ± 10.42
F		7.686	F		6.173
p (difference)		0.001 (a, b>c)	p (difference)		0.002 (a<b, c)
<b>Social Security</b>			<b>Family Type</b>		
Yes	397	57.87 ± 11.15	Nucleus Family	393	57.37 ± 11.49
No	34	53.62 ± 13.09	Extended Family	38	59.26 ± 9.89
t / p		1.837 / 0.074	t / p		0.983 / 0.326
<b>The Longest Place of Residence</b>			<b>Miscarriage History</b>		
Village/District	128	55.77 ± 11.47	Yes	50	53.16 ± 13.27
City	303	58.28 ± 11.25	No	381	58.11 ± 10.97
t		2.109	t		2.525
p		0.036	p		0.014
<b>Number of Births</b>			<b>Abortion History</b>		
One Birth	156	55.47 ± 11.32	Yes	22	50.32 ± 14.62
Two or more	275	58.71 ± 11.23	No	409	57.92 ± 11.04
t		2.868	t		-2.921
p		0.004	p		0.004
<b>Last Pregnancy Planned?</b>			<b>Night-time breastfeeding</b>		
Yes	328	58.60 ± 10.54	Yes	407	58.86 ± 10.20
No	103	54.14 ± 13.14	No	24	35.13 ± 4.60
t		3.146	t		11.322
p		0.002	p		<0.001
<b>Last Mode of Delivery</b>			<b>Person providing support for babysitting/breastfeeding</b>		
Vaginal	292	58.60±10.55	Mother-Mother in law	249	55.84 ± 12.03
Cesarian	139	55.30±12.64	Spouse <sup>b</sup>	141	60.94 ± 8.36
t		2.662	Sister, neighbor, friends and relatives <sup>c</sup>	41	56.10 ± 13.58
p		0.008	F (df=2/428/430)		9.840
			p (fifference)		<0.001(a, c<b)
<b>Feeding of the Infant</b>			<b>Infant's Gender</b>		
Breastmilk	347	62.20 ± 6.38	Boy	204	56.80 ± 11.77
Breastmilk + formula	84	38.27 ± 5.66	Girl	227	58.19 ± 10.95
t		33.852	t		1.274
p		<0.001	p		0.203
<b>Time of First Breastfeeding</b>			<b>Intended Breastfeeding Duration</b>		
Right after delivery (first 30 minutes) <sup>a</sup>	300	59.01 ± 10.41	First 6 months <sup>a</sup>	51	41.14 ± 8.38
First 31-60 minutes <sup>b</sup>	124	54.69 ± 12.35	One year <sup>b</sup>	65	46.52 ± 11.04
60 minutes or more <sup>c</sup>	7	44.57 ± 15.41	Up to 2 years <sup>c</sup>	315	62.46 ± 6.90
F		16.196	F (df=2/428/430)		238.508
p (difference)		<0.001 (a>b, c)	p (difference)		<0.001 (a<b<c)
<b>Infant's age (month)</b>					
1 month	158	58.00 ± 11.23			
2 months	273	57.26 ± 11.44			
t		0.648			
p		0.517			

t: T-test in independent groups, F: Analysis of variance in independent groups (meanings of a, b, c in a group was test with Bonferroni correction and Tukey test for Post Hoc multiple comparisons), df= between-groups/within-groups/total degrees of freedom, Bold values indicate statistically significant value (p<.05).

**Table 4.** The Relationship of some characteristics of the mothers and PSS and BSES scores, and the Effect of Independent Variables on Mothers’ BSES Score: Results of Multiple Regression Analysis (n=431).

Numeric variables <sup>a</sup>		BSES Total Score		PSS Subdimensions Importance of the Need		Support Received	
		r	p	r	p	r	p
Age		0.16	0.001	-0.32	<0.001	-0.14	0.004
Spouse’s Age		0.12	0.011	-0.39	<0.001	-0.21	<0.001
Infant’s monthly weight gain (gr)		0.17	<0.001	-0.08	0.092	0.09	0.070
BSES Score		-	-	-0.29	<0.001	0.60	<0.001

  

							Collinearity statistics		
Independent Variables <sup>b</sup>	B	Std. Error	$\beta$	t	p	95% Confidence Interval for B	Tolerance	VIF	
(Constant)	-20.97	3.73		-5.623	<0.001	-28.30 -13.64			
Infant’s Feeding Mode	14.37	0.96	0.50	15.001	<0.001	12.49 16.25	0.393	2.546	
PSS Support Received Subdimension Score	0.07	0.01	0.20	6.851	<0.001	0.05 0.10	0.495	2.020	
Duration of Breastfeeding of the Previous Infant	3.22	0.53	0.18	6.066	<0.001	2.18 4.26	0.474	2.112	
Age	0.28	0.06	0.13	5.014	<0.001	0.17 0.39	0.694	1.442	
Nighttime Breastfeeding Status	3.84	1.20	0.08	3.196	0.001	1.48 6.21	0.744	1.345	
Intended Duration of Breastfeeding	1.33	0.58	0.08	2.306	0.022	0.20 2.46	0.359	2.786	
Number of Births	1.76	0.66	0.07	2.655	0.008	0.46 3.06	0.559	1.788	
History of Abortion	3.00	1.15	0.06	2.611	0.009	0.74 5.25	0.886	1.128	
Infant’s monthly weight gain (gr)	0.002	0.001	0.05	2.485	0.013	<0.0013 0.003	0.948	1.055	
Spouse’s occupation	1.14	0.51	0.05	2.258	0.024	.15 2.14	0.927	1.079	
Previous mode of delivery	1.14	0.53	0.05	2.144	0.033	0.09 2.19	0.915	1.093	

R: 0.90 Adjusted R2: 0.81 F: 168.80 p:<0.001 Durbin Watson: 1.96.

a: Pearson correlation analysis, b: Multiple Regression Analysis, Bold values indicate statistically significant value (p<.05).

breastfeeding experience increases with the increase in the number of births are more successful in breastfeeding with this experience and their breastfeeding self-efficacy is positively affected. The abortion history of the mothers may remain as a bad memory in the postpartum period and it is thought that this situation may cause a feeling of anxiety in the mother. It is thought that mothers’ anxiety during the postpartum period affects breastfeeding self-efficacy. In mothers whose last birth was vaginal delivery, the advantages such as faster recovery in the postpartum period, fewer complications compared to cesarean section, earlier milk production, and earlier initiation of interactions with the baby affect the breastfeeding process positively and mothers are more self-confident in breastfeeding. It is thought that breastfeeding self-efficacy of mothers whose spouses work in more comfortable conditions increases with the participation of spouses in the breastfeeding process both emotionally and time-wise.

**Conclusion**

It was observed that as the age of the mother, the age of the spouse, and the monthly weight gain of the baby in-

creased, the breastfeeding self-efficacy of the mothers increased. As a result of the regression analysis, independent variables such as infant feeding style, PSS Support Received subscale score, age, nighttime breastfeeding status, expected breastfeeding duration, number of births, abortion history, baby’s monthly weight gain, spouse’s occupation, and last delivery method affected breastfeeding self-efficacy. Mothers’ infant feeding style was the most important determinant on breastfeeding self-efficacy, and it was found that mothers who fed their infants only with breast milk in the postpartum period had higher breastfeeding self-efficacy. In order to increase mothers’ breastfeeding self-efficacy, midwives should encourage mothers to feed their babies exclusively with breast milk for the first six months, start breastfeeding education during pregnancy, and support the mother in breastfeeding in the postpartum period. In addition, in our study, it was found that breastfeeding self-efficacy of the mothers increased with the increase in the support provided to mothers in the postpartum period. In order to increase breastfeeding self-efficacy for the maternal and infant health, social support of the mothers should be increased in the postpartum pe-

riod. Especially midwives and other health professionals, both in postpartum services and in primary health care institutions, should ensure that the support provided to mothers is not limited to medical treatment and care, and the mothers should be provided with additional psychosocial and information support. In order to increase breastfeeding self-efficacy, midwives should be sensitive about giving the mother all the support she needs during the postpartum period, all support providers for the woman regarding breastfeeding should be involved in this process.

### Limitations

The results of the study are valid only for the mothers in which the study was conducted, and generalization cannot be made to the entire population.

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### Disclosure statement

There are no conflicts of interest or financial interests.

### Ethics approval

Ethical approval (2019-1228) was obtained from the Non-Invasive Clinical Research Ethics Committee of Konya Selcuk University Faculty of Health Sciences for this study.

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