

# Self-efficacy of Postpartum Mothers toward Breastfeeding and the Affecting Factors

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**Abstract** Maternal breastfeeding self-efficacy (BFSE) is a powerful predictor of a mother's confidence in breastfeeding and it is a modifiable factor can increase its success and rates. **Aim:** To examine the breastfeeding self-efficacy and identify factors affecting it during the postpartum period. **Method:** The descriptive-cross-sectional design was used on 360 postpartum women attended at four maternal and child health centers at Assuit city. A structured interview questionnaire of breastfeeding Self-Efficacy Scale Short Form (BSES-SF). The level of breastfeeding self-efficacy was a moderate among most of the studied women. The multivariate regression model showed that the variables of occupation of the mother, economic status, having a successful and exclusive breastfeeding experience had statistically significant relationships with breastfeeding self-efficacy. Numerous factors such as parity, previous breastfeeding, Sex of the infants that can affect the breastfeeding self-efficacy. **Conclusion & Recommendation:** Numerous non-modifiable and modifiable factors that can affect breastfeeding self-efficacy. A woman's level of breastfeeding self-efficacy should be determined during the postnatal period. The healthcare providers pay attention to BSES-SF and use it to identify the mothers at the risk of early cessation of breastfeeding. Proper strategies could be designed to increase the breastfeeding self-efficacy among this group of mothers and help them eliminate the barriers to breastfeeding.

**Keywords:** breastfeeding, self-efficacy, postpartum period

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## 1. Introduction

Breastfeeding is considered as a gold standard of feeding an infant in its first six months of life. It considers an ideal first food for human infants compared with formula feeding [1]. It reduces infant morbidity and mortality, increases cognitive development and intelligence later in life, decreases the rate of obesity and diabetes. Breastfeeding reduced incidence of breast, ovarian cancers and diabetes and improved maternal postpartum recovery [2].

Self-efficacy represents a crucial factor for the early abandonment of breastfeeding [3]. It is a mother's feeling of self-sufficiency regarding her breastfeeding performance, a mother's confidence in her ability to breastfeed her new baby, which determine whether a mother chooses to breastfeed exclusively, her effort expended, how long they will persevere when confronting obstacles, and if she will be self-critical or self-encouraging to support her breastfeeding behavior and how she manages it [4].

Self-efficacy is the assessment of an individual's ability to achieve a specific goal or a task, such as breastfeeding.

There is a positive correlation between self-efficacy and target achievement; people with greater self-efficacy work longer and harder to accomplish successful goals, self-efficacy must be valid for all or most of an activity's component behaviors. For breastfeeding, it includes things like producing enough milk, having the baby latch properly technique, Position, and attachment [5].

Breastfeeding self-efficacy could be an indicator of the performance of mothers in breastfeeding during the immediate postpartum time period. It can also act as an indication for those needing further intervention to ensure breastfeeding continues [6]. Self-efficacy can be affected by many factors, including personal-social factors such as mothers' age, educational level, socioeconomic status, the number of pregnancies, employment, family income and previous breastfeeding experience, willingness to breastfeed, breastfeeding support from relatives, type of breastfeeding affecting a mother's breastfeeding self-efficacy [7,8].

Self-efficacy in breastfeeding can be a determining factor in exclusive breastfeeding. It is recommended that health care professionals evaluate the self-efficacy of maternal breastfeeding during antenatal and postnatal periods in order to identify those with poor self-efficacy

and provide support and intervention to improve the health of mothers and ultimately of the community [9,10].

### 1.1. Significant of the Study

One of the most important factors that breastfeeding affected was breastfeeding self-efficacy of mothers. There are statistically positively relation has been demonstrated between breastfeeding self-efficacy of mothers and the success of exclusive breastfeeding [11,12]. Maternal BFSE has been highly predictive for improving breastfeeding outcomes [13,14,15]. So the researchers are interested in studying this approach among breastfeeding mothers in Assuit city.

### 1.2. Aim of the Study

The present study aimed to examine breastfeeding self-efficacy and identify factors affecting it during the postpartum period.

### 1.3. Research Questions

1-What are the levels of breastfeeding self-efficacy in the postpartum period?

2-What are the factors affecting breastfeeding self-efficacy during the post-partum period?

## 2. Subjects and Method

### 2.1. Research Design

This descriptive- cross-sectional design was used in this study.

### 2.2. Study Settings

The study was conducted at four maternal and child health centers in Assuit city, and they were El Arbeen, Qulta, El waleedea, and Hay Gharb. These centers provide both preventive services such as (family planning, antenatal care, vaccination) and curative services such as (medical care services, investigation, and follow up....etc.). These services cover Assiut city and neighboring villages.

### 2.3. Sample

A convenient sample of women recruited to achieve the aims of this study. They recruited during their follow up at the previously mentioned clinical settings. They selected according to the following inclusion criteria; mothers who were over 18 years old, had healthy infants between ages 0-3 months, and agreed to participate voluntarily in the study. The study conducted within six months from the period of the beginning of August 2019 until January 2020 which includes. The following sample size equation used to demonstrate the included sample size.

$$Ss = \frac{Z2 * (P) * (1 - P)}{C2}$$

$$Ss = Z2(p) \times (1 - p) e2$$

Z= Z value (e. g. 1.96 for 95% confidence level)

P= Percentage picking a choice expressed as a decimal

C= Confidence interval, expressed as decimal (e. g., .04= ±4)

According to the sample size equation, 360 postpartum mothers included in the study.

### 2.4. Tools of the Study

Two tools used for collecting data for this study,

**Tool (1) A Structured interview questionnaire** was designed by the researchers and consisted of three parts:

**Part 1:** Included the assessment of women's socio-demographics such as age, level of education, occupation, residence, economic status, and religion.

**Part 2:** included obstetric data such as number of gravidities, number of parity, the current pregnancy, and labor, mode of delivery, gestational age, and duration from the last delivery, newborn sex and type of newborn feeding.

**Part 3:** included previous breastfeeding experience, breast problems, and social support, follow up of antenatal visit and planned pregnancy.

**Tool (2): Breastfeeding Self-Efficacy Scale (BSES)** originally comprised 33 items developed by Dennis and Faux in 1999 [16], to assess breastfeeding confidence, shortened the scale to 14 items in 2003 to form the Breastfeeding Self-Efficacy Short Form Scale BSES-SF where items are preceded by the phrase "I can always" and rated on a 5-point Likert scale ranging from 1 (not at all confident) to 5 (always confident). BSES-SF consists of constructive declarations such as "I can always determine that my baby is getting enough milk" and "I can always be satisfied with my breastfeeding experience." Contributors have required to the degree their agreement with the declaration based on the Likert-type scale. Reply '1' showed that the contributor was not at all assured and a reply of '5' showed that the contributor was very sure with the declaration. All items are presented positively in sentences and scores are summed to produce a range from 14 to 70, with higher scores indicating higher levels of breastfeeding self-efficacy. The total score of each item represents the breastfeeding self-efficacy score. The minimum and maximum scores of this questionnaire are 14 and 70, respectively. Moreover, obtaining the score ranges of 14-33, 33-53 and 53-70 are considered as low, medium, and high self-efficacy, respectively (Dennis, 2006 & Amini et al., 2019) [17,18].

The theoretical framework is the same as the BSES. A considerable amount of reliability and validity evidence supports its use as a global measure of breastfeeding self-efficacy. The reliability and validity of this instrument was satisfactory in USA, Canada, Brazil, UK, Spain, Italy, Sweden, Poland, Croatia, Portugal, Turkey, China, Japan, Malaysia, and Hong Kong.

### 2.5. Validity and Reliability

The tools were transferred to Arabic language and reviewed to ascertain their content validity by a group of specialists in the field of Obstetrics & Gynecological,

Community Health, and psychiatric nursing at Assiut University who reviewed the tool of clarity, relevance, and comprehensiveness, understanding, and applicability according to the opinion of the experts the modification was done. The reliability of the tool was measured by BSES-SF Cronbach's alpha value to be 0.98.

**A pilot study;** was done on ten percent of study subjects who fulfilled the inclusion criteria to assess the tools for their applicability, clarity, and necessary modifications were done accordingly. The validity of the tool I was tested for content by five nursing and medical experts in the related fields. The reliability of the tool I was measured by Cronbach's Alpha and it was reliable 0.90. The validity and reliability of the tool II (MNA-SF) scale were assessed previously by Kaiser et al (2011). This tool was translated into Arabic by the researchers.

## 2.6. Ethical Consideration and Field of work

The research proposal was approved by the ethical committee in the Faculty of Nursing, Assiut University. There was no risk for study subjects from conducting the research. The study was following common ethical principles in clinical research. Informed consent obtained from the postpartum mother who was willing to participate in the study after explaining the nature and purpose of the study. Confidentiality and anonymity were assured. Study subjects had the right to refuse to participate or withdraw from the study without any rationale at any time and study subjects' privacy was considered during data collection.

The study was approved by the faculty of Nursing, Assiut University, Egypt. At the same time, permission to carry out the study from the director of the maternal-child health centers in Assiut city after explaining the purpose of the study was obtained. Verbal consent from mothers to participate in the study was obtained after explanation of the study purposes.

The researcher interviewed each woman at MCH centers and collected the data recorded in the questionnaire. This occurred after an explanation of the nature of the study and took written consent to be included in the study. The average time taken for completing each interview ranged from 20 to 30 minutes depending on the study subject's response. Every week about 13-15 questionnaires were completed (two days/ week).

## 2.7. Statistical Analysis

The obtained data were reviewed, set for computer entry, coded, analyzed and tabulated. Descriptive statistics presented as (frequencies and percentages). The test of significance (chi-square test), has done using computer program SPSS version 20. The probability of less than 0.05 was considered significant for all statistical tests

## 3. Results

**Table 1:** illustrates the socio-demographic and obstetric characteristics of the study subjects. The mean age of all participants was  $28 \pm 4.86$  years old (range 17-39). Regarding residence, 53.1% of study subjects were live in

an urban area. Approximately half of the study subjects 54.4% were housewives. As for education level, 35.3% of the study subjects had secondary education followed by 33.1% has a university education but only 12.5% cannot read and write. Regarding the family income, 65.8% of the participants were middle income. Besides, 69.4% of participants were Multigravida followed by 30.6% were Primigravida. More than half of the study subjects 58.3% had given birth by cesarean section whereas 24.4% of them were normal vaginal delivery with episiotomy.

**Table 2:-**Reflects the distribution of the study subjects according to breastfeeding characteristics 60.6% had experience about the previous breastfeeding and half of the 51.1% had given exclusive breastfeeding whereas 48.9% of study subjects had given partial breastfeeding. Regarding sex of the infant, 61.1% of them were delivered the male baby and 38.8% of them complained from the inverted nipple. Most of the study subjects 68.3% had received social support from their families and husbands. About 55% were planned for pregnancy.

**Table 1. Distribution of the studied women according to their social-demographic characteristics and obstetric history**

	No(360)	%
<b>Age group</b>		
<20	23	6.4
<b>20-30</b>	<b>220</b>	<b>61.1</b>
>30	117	32.5
<b>The mean age/year</b>	<b>28±4.86</b>	
<b>Religion</b>		
<b>Muslim</b>	<b>271</b>	<b>75.3</b>
Christian	89	24.7
<b>Residence</b>		
Rural	169	46.9
<b>Urban</b>	<b>191</b>	<b>53.1</b>
<b>Occupation of mothers</b>		
Working	164	45.6
<b>Housewives</b>	<b>196</b>	<b>54.4</b>
<b>Education</b>		
Illiterate	45	12.5
Primary	56	15.6
<b>Secondary</b>	<b>127</b>	<b>35.3</b>
University	119	33.1
Post university	13	3.6
<b>Economic Status</b>		
Low-income	48	13.3
<b>Middle-income</b>	<b>237</b>	<b>65.8</b>
High-income	75	20.8
<b>Gravidity</b>		
Primigravida	110	30.6
Multigravida	250	69.4
<b>Gestational age/weeks</b>		
36-37 weeks	61	16.9
<b>38-39weeks</b>	<b>204</b>	<b>56.7</b>
40 and above	95	26.4
<b>Mode of delivery</b>		
Normal	62	17.2
Normal with episiotomy	88	24.4
<b>CS</b>	<b>210</b>	<b>58.3</b>

**Table 2. Distribution of the studied women according to breastfeeding characteristics and postnatal factors**

Previous breastfeeding experience	No(360)	%
Yes	218	60.6
No	142	39.4
<b>Type of Breastfeeding</b>		
Exclusively breastfeeding	184	51.1
partially breastfeeding	176	48.9
<b>-Breast problems:-</b>		
NO problem	124	34.4
Cracked	99	27.5
inverted nipple	137	38.1
<b>-Number of post-partum days</b>		
1-3	39	10.8
3-5	130	36.1
more than 5	191	53.1
<b>-Sex of the infants:-</b>		
Male	220	61.1
Female	140	38.9
<b>-Social support</b>		
Yes	246	68.3
No	114	31.7
<b>-Planned pregnancy</b>		
Yes	198	55.0
No	162	45.0

\*Social support (relatives, friends medical & nursing staff).

**Table 3 & Table 4:** Clears that the total scores of each item of BSES-SF in descending order. The mean total score of breastfeeding self-efficacy was 47.90 (SD 11.80, range 22–70). The mean item score of BSES-SF of mothers was 3.43 (SD1.2, range1–5). The three items that had the highest scores were telling when my baby is finished breastfeeding, Confidence in the method of breastfeeding technique, and breastfeeding is time-consuming. The lowest scores, suggesting mothers felt least confident were the mothers always breastfeed her infant without the need to add formulated milk, The items that had "finishing feeding my baby on one breast before switching to the other breast, always comfortable breastfeeding my baby, even in the presence or in front of other family members.

**Table 5 & Table 6:** Demonstrates the factors affecting breastfeeding self-efficacy scale. The results shows There was a significant difference between the scale score and occupation, education, economic status, gravidity, breastfeeding experiences, type of breastfeeding, number of postpartum days, breast problems, social support and follow up to antenatal visits ( $p < 0.001^{**}$ ) while there was non-significant difference with age, residence, weeks of gestation, sex of the infant, mode of delivery and planned pregnancy.

**Table 7:** Represents that multivariate regression model with the variables of occupation of the mothers, economic status, previous breastfeeding experience, type of breastfeeding, and complications in pregnancy had a significant relationship with breastfeeding self-efficacy.

**Table 3. Breastfeeding self-efficacy scores according to items of breastfeeding self-efficacy scores**

	BSES-SF items	Mean	SD
<b>I Can Always</b>			
<b>C14</b>	Tell when my baby is finished breastfeeding	3.89	(1.24)
<b>C4</b>	Ensure that my baby is properly latched on for the whole feeding	3.78	(1.16)
<b>C10</b>	Deal with the fact that breastfeeding can be time-consuming	3.67	(1.25)
<b>C2</b>	Successfully cope with breastfeeding as I have with other challenging tasks	3.56	(1.11)
<b>C6</b>	Manage to breastfeed even if my baby is crying	3.52	(1.41)
<b>C7</b>	Keep wanting to breastfeed	3.44	(1.28)
<b>C13</b>	Manage to keep up with my baby's breastfeeding demands	3.43	(1.2)
<b>C1</b>	Determine that my baby is getting enough milk	3.38	(1.35)
<b>C9</b>	Be satisfied with my breastfeeding experience	3.34	(1.25)
<b>C12</b>	Continue to breastfeed my baby for every feeding	3.33	(1.17)
<b>C5</b>	Manage the breastfeeding situation to my satisfaction	3.6	(1.2)
<b>C3</b>	Breastfeed my baby without using a formula as a supplement	3.05	(1.62)
<b>C11</b>	Finish feeding my baby on one breast before switching to the other breast	3.01	(1.28)
<b>C8</b>	Comfortably breastfeed with my family members present	2.85	(1.34)

**Table 4. Total score of items of the breast self-efficacy**

Breastfeeding self-efficacy	No(360)	%
<b>Low</b>	44	12.2
<b>Average</b>	197	<b>54.7</b>
<b>High</b>	119	33.1
<b>Mean±SD(range)</b>	<b>47.90±11.80(22-70)</b>	

Table 5. Predictive factors associated with breastfeeding self-efficacy on post-partum after delivery

Variable	Breastfeeding self-efficacy			
	N	Mean±SD	Range	P.value
<b>Age group</b>				
<20	23	50.83±9.68	35-68	0.066
20-30	220	46.78±11.49	22-70	
>30	117	49.45±12.56	22-68	
<b>Residence</b>				
Rural	169	48.99±10.65	23-69	0.100
Urban	191	46.94±12.68	22-70	
<b>Occupation of mothers</b>				
Working	164	44.38±12.28	22-69	<0.001**
Housewives	196	50.85±10.55	22-70	
<b>Education</b>				
Illiterate	45	53.67±10.61	29-69	0.005**
Primary	56	48.79±12.25	22-68	
Secondary	127	47.51±10.4	27-70	
University	119	45.99±12.3	22-70	
high education	13	45.54±16.47	27-65	
<b>Economic Status</b>				
Low-income	48	54.46±10.85	29-69	<0.001**
Middle-income	237	47.33±10.59	22-70	
High-income	75	45.52±14.44	22-70	

\* Significant at  $\leq 0.05$  as reported from Fisher exact test.

Table 6. Effect of an obstetric and predictive variable on the score of breastfeeding self-efficacy

variables	Breastfeeding self-efficacy			
	N(360)	Mean±SD	Range	P.value
<b>Parity</b>				
Primigravida	110	42.28±13.2	22-69	<0.001**
Multigravida	250	50.38±10.22	22-70	
<b>Gestational age</b>				
36-37 weeks	61	49.44±11.65	29-70	0.479
38-39weeks	204	47.37±11.94	22-70	
40 and above	95	48.07±11.63	23-68	
<b>Mode of delivery</b>				
Normal	62	49.53±13.9	22-70	0.305
Normal with episiotomy	88	48.6±12.22	24-70	
CS	210	47.13±10.91	22-68	
<b>Previous breastfeeding experience</b>				
Yes	218	51.64±10.12	22-70	<0.001**
No	142	42.17±11.94	22-70	
<b>Type of Breastfeeding</b>				
Exclusively breastfeeding	184	54.04±9.5	25-70	<0.001**
partially breastfeeding	176	41.49±10.5	22-66	
<b>Number of post-partum days</b>				
1-3	39	56.87±7.95	35-68	<0.001**
3-5	130	45.55±13.74	22-70	
more than 5	191	47.68±10.1	22-69	
<b>Sex of the infants:-</b>				
Male	220	47.92±11.5	22-70	0.972
Female	140	47.88±12.3	22-70	
<b>Breast problems:-</b>				
Cracked	99	47.89±11.25	22-69	
inverted nipple	137	42.82±11.47	23-70	
<b>Social support</b>				
Yes	246	46.69±12.07	22-70	0.004**
No	114	50.53±10.81	22-70	
<b>Planned pregnancy</b>				
Yes	198	46.93±12.19	22-70	0.084
No	162	49.09±11.24	22-70	
No	339	48.01±11.76	22-70	

\* Significant at  $\leq 0.05$  as reported from Fisher exact test.

Table 7. Bivariate and multivariate logistic regression of predictors of high breastfeeding self-efficacy

	Breastfeeding self-efficacy					
	Univariate			Multivariate		
	Beta	T	Sig.	Beta	T	Sig.
Age	0.067	1.265	0.207	0.042	0.913	0.362
<b>Occupation of mothers</b>	<b>0.255</b>	<b>4.997</b>	<b>0.000</b>	<b>0.174</b>	<b>3.542</b>	<b>0.000</b>
Education	-0.165	-3.171	0.002	0.075	1.328	0.185
<b>Economic Status</b>	<b>-0.209</b>	<b>-4.036</b>	<b>0.000</b>	<b>-0.172</b>	<b>-3.224</b>	<b>0.001</b>
Parity	0.301	5.974	0.000	0.052	0.914	0.361
Gestational age	-0.057	-1.087	0.278	-0.097	-2.150	0.032*
Mode of delivery	-0.084	-1.594	0.112	-0.037	-0.786	0.433
<b>Previous breastfeeding experience</b>	<b>-0.368</b>	<b>-7.495</b>	<b>0.000</b>	<b>-0.162</b>	<b>-2.881</b>	<b>0.004</b>
<b>Type of Breastfeeding</b>	<b>-0.500</b>	<b>-10.919</b>	<b>0.000</b>	<b>-0.353</b>	<b>-6.639</b>	<b>0.000</b>
Number of post-partum days	-0.117	-2.223	0.027*	-0.020	-0.431	0.667
Sex of the infant:-	-0.017	-0.329	0.742	-0.004	-0.099	0.921
Breast problems:-	-0.365	-7.425	0.000**	-0.101	-1.918	0.056
Social support	0.138	2.630	0.009**	-0.103	-1.961	0.051
Planned pregnancy	0.076	1.444	0.150	0.007	0.154	0.878
<b>Antenatal visits:</b>	<b>0.176</b>	<b>3.391</b>	<b>0.001</b>	<b>0.107</b>	<b>2.089</b>	<b>0.037</b>

## 4. Discussion

Breastfeeding is one of the most effective health promotion practices, and one of the reasons that influence its effectiveness is self-efficacy in breastfeeding. Low self-efficacy in breastfeeding includes implications such as early breastfeeding, reduced exclusive breastfeeding, negative effects on sensation and efficiency [19]. (Saghooni, et al., 2017)

**This study aimed to** examine the breastfeeding self-efficacy and its related factors in postpartum mothers. The present study found that the mean score of breastfeeding self-efficacy was moderate; this finding was similar to the results of [9]. Yang et al. (2016) who studied In the cross-sectional analysis, predictors of breastfeeding self-efficacy during the immediate postpartum period. They examined the self-efficacy of breastfeeding and identified its predictors in the early postpartum period among main land Chinese mothers. They found that in the immediate aftermath mothers had a modest level of self-efficacy in breastfeeding [4]. Gumussoy & Atan (2019)

A comprehensive cross-sectional study was conducted at Family Health Care Centers in Kemalpaşa, Izmir, Turkey, which examined the impact of maternal adaptation on breastfeeding self-efficacy. We investigated the relationship between maternal adaptation and self-efficacy in breastfeeding, and analyze factors correlated with mothers after childbirth that are self-efficient in breastfeeding. They Observed that the level of BFSE was moderate agree with our results. However, a study conducted by Guimares et al. (2017) [20] about factors examined in puerperal adolescents about breastfeeding self-efficacy immediately after birth. In an observational, cross-sectional, and descriptive study, established in Brazil, they establish the relationship between breastfeeding self-efficacy and adolescent socio-demographic and obstetric influences. They indicated that the self-efficacy of breastfeeding was greater than that of the current study.

The results of the current study indicated that there was statistically significant difference between educational level and self-efficacy score were mothers with higher scores was illiterate and had primary education than

mothers with university and high education, which was consistent with the findings of Lee& Yim, (2008) [21] who studied the efficacy of breastfeeding in Chinese women with different Intra partum Experiences in China. They explored the objective and subjective breastfeeding efficacy and their relationship with breastfeeding outcomes at 8 weeks postpartum. They noted mothers with a low level of education had higher self-efficacy scores, also Nankumbi et al (2019) [15] who assessed predictors of breastfeeding self efficacy among women attending an urban postnatal clinic. They determined the factors associated with breastfeeding self efficacy among postnatal women in Kampala, Uganda. They found mothers with a higher level of education had low BFSE; on the other hand, this was inconsistent with the findings of Tokat et al. (2010) [22]. They studied translation and psychometric assessment of the breastfeeding self-efficacy scale: Short Form among Pregnant and Postnatal Women in Turkey. They found that the level of efficacy increased with a high educational level, also Hassanpoor et al. (2010) [23]. They studied breastfeeding Self-Efficacy in Pregnant Women referred to health centers in Ahwaz in turkey. They stated the self-efficacy scores of mothers increased with an increase in level education. These findings agree with Poorshaban et al. (2017) [8] about factors associated with breastfeeding self-efficacy of mothers within 6 weeks of delivery in the cross-sectional descriptive-analytical study. They cleared that mothers with secondary school and high educational level had higher self-efficacy scores than mothers with academic education these results contradict the results of Maleki-Saghooni et al. (2017) [24], who investigated the breastfeeding self-efficacy and its related factors in primiparous breastfeeding mothers which were conducted on 300 primiparous breastfeeding mothers with less than 6 months infants referring to healthcare centers of Mashhad, Iran. They showed no significant association between self-efficacy score and education level.

Such variations can be clarified by assessing self-efficacy three months after childbirth in the current study of breastfeeding. While the other studies were examined immediately after birth, this could be because mothers

with higher education usually tend to use formula and bottle feeding as some work and do not have sufficient time to breastfeed while others have money and can afford to buy their babies formula.

The finding of the present study revealed that there was association between occupation and breastfeeding self-efficacy scale where working mothers had lower self-efficacy scores than housewives, These results agree with Pakseresht et al. (2017) [25], who comparing maternal breastfeeding self-efficacy during the first week and sixth week postpartum in descriptive, analytical study was conducted in Center of Rasht, Iran in 2014. They observed that there was a significant relationship between breastfeeding self-efficacy (BSE) score and employment status, but inconsistent with the results of Maleki-Saghooni et al. (2017) [24] in Iran. They indicated that the employed mothers had significantly higher breastfeeding self-efficacy scores compared to housewives. This could be because working mothers are concerned about when mothers return to work, which creates breastfeeding issues and thus decreases their self-efficacy. Beginning to work and taking responsibility for a job puts extra pressure on the mother, promoting her need and helping advisors and family members so that she can maintain her self-confidence and pay attention to her own and her infant's health and adapt to her new life program.

The present study reported that a significant relationship between the number of pregnancies and self-efficacy were Multigravida had high breastfeeding self-efficacy. Similar with Husin et al. (2017) [26], in their study The objective was to establish a Malay translation of the original BSES-SF English and to carry out a validity and reliability evaluation on both antenatal and postnatal questionnaires between 101 pregnant women in their third trimester and 104 women in their first week postpartum Malaysia. They found that new primary mothers who did not have breastfeeding experience tend to have lower self-efficacy. These disagree with MeloDodt et al. (2012) [27], in their studies about the assessment of psychometric and maternal sociodemographic of the Breastfeeding Self-efficacy Scale in Brazil. They found no link between the number of pregnancies and the self-efficacy of breastfeeding. Moms with more children usually have more breastfeeding expertise and address relevant issues. This can boost self-confidence and therefore auto-efficacy in mothers

Tokat et al. (2010) [22]. in Turkey indicated that mothers with normal delivery had higher self-efficacy scores than mothers who had C-section. This accepted by Rodrigues et al. (2013) [28]. in his study about factors those influence self-efficacy of breastfeeding who said that the type of delivery affects breastfeeding self-efficacy and mothers that have C-section need more support than mothers with a natural delivery. This could be because of problems caused by C-section for the mother at the start of breastfeeding. This results following Pakseresht et al. (2017) [25], they stated that a significant relationship between the mean BSES-SF scores and type of delivery (vaginal versus cesarean section). These results of the researcher were accepted with the current study.

The findings of the present study demonstrated a relation between weeks of gestation and efficacy scale in which self-efficacy reduced with increased gestational age,

the similar findings reported by Hassanpoor et al, (2010) [23] in Turkey, where the score of breastfeeding self-efficacy scale reduced with increasing weeks of gestation, accordance with findings Uchoa et al, (2012) [29], in the subject about influence on conditions of the newborns about the maternal self-efficacy in breastfeed. They found a relationship between prematurity and breastfeeding self-efficacy, This could be because lower gestational age might create problems at the start of breastfeeding, especially in the early hours of the baby's life, while term neonates with Apgar scores of 7 or more can have contact with the mother to start breastfeeding sooner, which results in more confidence in mothers with term infants and thus higher self-efficacy scores. Besides, mothers with premature infants have more stress and fear about caring and breastfeeding their newborns.

Regarding previous experience about breastfeeding, the present study illustrated a statistically significant relation between efficacy scale and experience which reported the score was lower among mothers who had not previous breastfeeding experience than mothers who had it. Unsimilar, Nankumbi et al, (2019) [15], in Kampala, Uganda was not found a significant relationship between two variables. In other hands Zhu et al., (2014) [30], they examine predictors of breastfeeding self- efficacy among Chinese mothers in across-sectional questionnaire survey in china, they found a relation between efficacy and experience, also Hicyilmaz and Acikgoz, (2017) [31], in their research about the association between breastfeeding self-efficacy, attitude and social-professional support in Turkey reported that women who had a previous successful breastfeeding experience were more likely to have a high BFSE than new mothers following my research.

Mirghafourvand et al., 2018 [32], in their study about predictors of breastfeeding self-efficacy in Iran women among across-sectional study was conducted on 220 mothers breastfeeding 4-to-6-month babies in Iran, they mentioned that breastfeeding efficacy is affected by social support from husbands and parents, in the same line Mannion et al., (2013) [33], in their subjects about maternal perceptions of partner support during breastfeeding, they recruited 76 mothers from community health clinics in Calgary, Alberta, they found association between breastfeeding efficacy and social support, as the same line, Zhu et al., (2014) [30], in China found the relation between Breastfeeding self-efficacy and social support where women with higher perceived social support were port higher level of breastfeeding self-efficacy. Abbass-Dick et al., (2015) [34], in the randomized controlled trial about Co-parenting breastfeeding support and exclusive breastfeeding, they a clear association between two variables. These findings corresponding with the current study which observed there was a significant statistical relationship between two variables. Mothers felt more capable and confident about breastfeeding when they perceived their husbands/partners were supportive by way of verbal encouragement and active involvement in breastfeeding activities.

In this study, mothers who exclusively breastfed their infants had a higher breastfeeding self-efficacy mean score than those who did not. That is, mothers with higher self-efficacy had more exclusive breastfeeding than others.

This is consistent with the findings of Rahmatnejad and Bastani (2012) [35], they investigate breastfeeding self-efficacy and its Relationship with exclusive breastfeeding, they observed breastfeeding self-efficacy score higher among exclusive breastfeeding women, similarity, Varej (2009) [36], who studied a relationship between breastfeeding self-efficacy and breastfeeding status in mothers, they observed the same result.

## 5. Conclusion & Recommendations

The findings of the present study revealed numerous non-modifiable and modifiable factors that can affect breastfeeding self-efficacy. A woman's level of breastfeeding self-efficacy should be determined during the postnatal period, and the health care staff should intervene with the modifiable factors influencing a mother's breastfeeding self-efficacy to improve this perception, particularly for those women exposed to risk. Therefore, health education strategies that give sustenance to breastfeeding women and increase breastfeeding rates may be made available BSE for mothers. These self-efficacy increasing approaches may increase the assurance of a mother in her breastfeeding abilities.

### 5.1. Practice Implications

Health professionals can benefit from the current study findings to identify factors affecting self-efficacy that affecting the lactating mothers and educating mothers about early breast feeding and improve self-efficacy in breastfeeding.

### Conflict of Interest

The authors declare no conflict of interest, financial or otherwise.

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