

Short Communication

Breastfeeding Self-efficacy and Its Associated Factors in Iranian Postpartum Women: A Cross-sectional Study



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**Citation** Sarparastrazmjui P. Breastfeeding Self-efficacy and Its Associated Factors in Iranian Postpartum Women: A Cross-sectional Study. *Journal of Research & Health*. 2026; 16(4):417-422. <http://dx.doi.org/10.32598/JRH.16.4.2745.1> <http://dx.doi.org/10.32598/JRH.16.4.2745.1>**ABSTRACT**

Identifying factors associated with breastfeeding self-efficacy can improve breastfeeding status. This study was conducted to determine the breastfeeding self-efficacy status and its associated factors at the Social Security Hospital in Zahedan City, Iran, in 2024. This cross-sectional study included 228 mothers who were admitted to the postpartum unit of the Social Security Hospital of Zahedan City within the last 24 hours. Eligible mothers were selected using convenience sampling from April to June 2024. The data were collected using a demographic-obstetric questionnaire and a short form of the breastfeeding self-efficacy scale and analyzed using Mann-Whitney U test, and Kruskal-Wallis test and Spearman's correlation coefficient. The Mean±SD of breastfeeding self-efficacy were 47.02±11.92. Among the factors studied, mother's education (P=0.002), spouse's education (P=0.003), mother's occupation (P=0.025), spouse's occupation (P=0.038), place of residence (P=0.008), type of delivery (P=0.016), gender of the baby (P<0.001), gravidity (P=0.029), number of children (P=0.006), skin-to-skin contact (P<0.001), skin-to-skin contact time (P=0.036), number of breastfeeding times in 24 hours, and previous breastfeeding experience (P=0.002) were significantly correlated with breastfeeding self-efficacy. The results indicate that certain factors are related to breastfeeding self-efficacy. Interventions should be implemented to promote breastfeeding self-efficacy as an important factor for improving breastfeeding outcomes.

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Introduction

Breastfeeding is the normative standard for infant feeding and is beneficial to the health of both mothers and infants. Numerous studies in developed and developing countries have provided strong evidence that breastfeeding decreases the incidence and/or severity of a wide range of diseases in infants and mothers [1]. Thus, international and national organizations have promoted exclusive breastfeeding (EBF) for the first 6 months of life [2, 3]. The World Health Organization (WHO) recommends that all babies receive EBF during the first 6 months of life and continue breastfeeding, along with complementary foods, until at least age 2 [4]. However, the rates of EBF remain low worldwide, with only 36% of babies under 6 months receiving it [5]. Breastfeeding immediately after birth also helps the uterus contract, reducing the mother's postpartum blood loss [6]. Similar to many countries worldwide, in Japan, many mothers prematurely discontinue EBF against their prenatal intention to breastfeed. Although a nationwide survey reported that 96% of Japanese women intend to breastfeed prenatally [1], many start supplementation with infant formula after delivery. In a study conducted in Europe, in Spain, the EBF rate was 25.4% at 6 months and 7.7% at 2 years [7]. It has been reported that the EBF rate in Iran at the national level is 56.8% at four months and 27.7% at six months. This amount is 56% in four months and 27% in six months in urban areas and 58% in four months and 29% in six months in rural areas [8]. Recently, maternal breastfeeding self-efficacy has been highlighted as an important psychometric factor for improving breastfeeding outcomes [9]. Breastfeeding self-efficacy is defined as a mother's confidence in her ability to breastfeed her new infant [10] and has been positively associated with breastfeeding duration and exclusivity in various cultures and age groups [11]. Theoretically, breastfeeding self-efficacy is influenced by the following four main sources of information: Performance accomplishments (e.g. past breastfeeding experiences), vicarious experiences (e.g. watching other women breastfeed, peer counseling), verbal persuasion (e.g. encouragement from influential others such as friends, family, and lactation consultants), and influence of one's physiological and/or affective states (e.g. pain, fatigue, anxiety, and stress) [12-15]. International studies have shown a connection between the following factors and the mother's intention to exclusively breastfeed: Positive attitudes toward EBF, perceived social support and monitoring of behaviour, previous experience with EBF, the mother being breast-

fed as a baby, older maternal age, and a high level of education and knowledge of the benefits of EBF [16-19]. Little is known about breastfeeding self-efficacy and sociocultural factors in the early postpartum period among Iranian women. However, evidence in this field is lacking, especially regarding the population residing in Zahedan City, Iran. This study was conducted to identify mothers at risk of stopping breastfeeding due to low breastfeeding self-efficacy. This study aimed to evaluate breastfeeding self-efficacy and associated socio-demographic and obstetric factors among women in the early postpartum period in Zahedan City.

Methods

Study design

This cross-sectional study was conducted among 228 postpartum mothers within the last 24 hours and examined breastfeeding self-efficacy of mothers and associated factors at Zahedan Social Security Hospital. The study population consisted of all mothers who had given birth either vaginally or by cesarean section. The inclusion criteria included women who had given birth in the hospital within the past 24 h to a healthy, live, full-term infant, with no known abnormalities, an intention to breastfeed, no readmission of the mother or baby to the hospital, no history of infertility, and no history of any physical or mental illness, as well as no self-reported addiction to smoking, alcohol, or drugs.

Study sample

In this study, the sample size was estimated based on findings from similar studies, considering 95% confidence interval, a standard deviation of 7.65, and an acceptable margin of error of 1. The required sample size in this study was estimated to be 230 postpartum mothers (occurring within at least 24 hours after delivery) [8]. The respondents of this study were 228 postpartum mothers. Sampling was performed continuously for three months.

Study instrument

The questionnaire was composed of two parts: the sociodemographic and obstetric characteristics section and the breastfeeding self-efficacy scale. The sociodemographic and obstetric characteristics section included age, mother's education, spouse's education, mother's occupation, spouse's occupation, income level, place of residence, gravidity, type of delivery, gender of the baby, skin-to-skin contact, skin-to-skin contact time, time of

the first breastfeeding, and number of breastfeeding times in 24 hours. Exploratory factor analysis demonstrated appropriate construct validity. The second part of the questionnaire was the breastfeeding self-efficacy scale short form (BSES-SF). The BSES-SF consists of 13 items rated on a 5-point Likert scale ranging from always confident (score 5) to not at all confident (score 1). The total score for each item reflects the breastfeeding self-efficacy score, with minimum and maximum scores of 13 and 65, respectively. Higher scores indicate greater breastfeeding self-efficacy [10]. According to the psychometric analysis of the Persian version of the BSES-SF by Araban et al. exploratory factor analysis demonstrated its appropriate construct validity, and its desirable reliability was confirmed by a Cronbach's α of 91% [12]. In this study, Cronbach's α was used to assess the scale's internal reliability, yielding 92.7%.

Data collection

Eligible mothers were selected using convenience sampling from April to June 2024. Data were collected through a survey interview using a questionnaire. Postpartum mothers were interviewed in the postnatal care section of the Social Security Hospital. Informed consent was obtained from the mothers prior to the interviews.

Data analysis

Frequencies and percentages were computed to describe the sociodemographic and obstetric characteristics of the mothers. The Kolmogorov-Smirnov test was used to assess data normality, but the data were not normal; therefore, non-parametric tests were used for statistical analysis. SPSS software, version 22 was used for descriptive and analytical statistics. A significance

Table 1. Sociodemographic characteristics of mothers and their association with breastfeeding self-efficacy

Variables	Characteristics	No. (%) / Mean $\pm$ SD	P
Age		6.7 $\pm$ 28.14	0.360
Breastfeeding self-efficacy		47.02 $\pm$ 11.92	-
Mother's education	Elementary	12(56.1)	0.002*
	High school	55(24.1)	
	University	45(19.7)	
Mother's occupation	Housewife	211(92.5)	0.025**
	Employed	17(7.5)	
Spouse's education	Elementary	(43.4)99	0.003*
	High school	76(33.3)	
	University	53(23.2)	
Spouse's occupation	Self-employed	117(51.3)	0.038*
	Employee	44(19.3)	
	Worker	58(25.4)	
	Unemployed	9(3.9)	
Income	Low	75(32.9)	0.428
	Moderate	152(66.7)	
	High	1(0.4)	
Place of residence	City	179(78.5)	0.008**
	Village	49(21.5)	

*Kruskal-Wallis, **Mann-Whitney, Significance level $P < 0.05$.

level of <0.05 was considered. Finally, Mann-Whitney, Kruskal-Wallis, and Spearman correlation analyses were performed to determine the relationship between breastfeeding self-efficacy and sociodemographic and obstetric characteristics.

Results

The average age of mothers was 28.14 ± 6.7 years, and the average self-efficacy score among the participants

was 47.02 ± 11.92 . The data presented in Table 1 show a statistically significant difference in breastfeeding self-efficacy according to sociodemographic variables. Among socio-demographic factors, a statistically significant difference was observed between breastfeeding self-efficacy and mother's education ($P=0.002$), mother's occupation ($P=0.025$), spouse's education ($P=0.003$), spouse's occupation ($P=0.038$), and place of residence ($P=0.008$). Table 2 presents the statistically significant differences between obstetric variables and breastfeed-

Table 2. Obstetric characteristics of mothers and their association with breastfeeding self-efficacy

Variables	Characteristics	No. (%)	P
Type of delivery	NVD	145(63.6)	0.016**
	CS	83(36.4)	
Gender of the baby	Girl	119(52.2)	<0.001*
	Boy	106(46.5)	
	Twin	3(1.3)	
Gravidity	1-3	151(66.2)	0.029*
	4-6	61(26.8)	
	≥ 7	16(7)	
Number of children	1-2	117(51.3)	0.006*
	3-4	78(34.2)	
	≥ 5	33(14.5)	
Skin-to-skin contact	Yes	176(77.2)	<0.001**
	No	52(22.8)	
Skin-to-skin contact time (minutes)	No	51(22.4)	0.036*
	≥ 30	118(51.8)	
	≥ 60	59(25.9)	
Time of first breastfeeding	Just after birth	87(38.2)	0.090
	60 minutes later	98(43)	
	120 minutes	43(54.8)	
The number of breastfeeding times in 24 hours	6-7	43(18.9)	0.010**
	≥ 8	185(81.1)	
Previous breastfeeding experience	Yes	111(48.7)	0.002**
	No	117(51.3)	

NVD: Normal vaginal delivery; CS: Cesarean section.

Significance level $P < 0.05$, *Kruskal-Wallis, **Mann-Whitney.



ing self-efficacy. Among obstetric factors, a statistically significant difference was observed between breastfeeding self-efficacy and gravidity ($P=0.029$), number of children ($P=0.006$), type of delivery ($P=0.016$), gender of the baby ($P<0.001$), skin-to-skin contact ($P<0.001$), skin-to-skin contact time ($P=0.036$), number of breastfeeding times in 24 hours ($P=0.010$), and previous breastfeeding experience ($P=0.002$).

Discussion

The results showed a significant relationship between self-efficacy and baby gender, which was inconsistent with the study by Moafi et al. [8]. In our study, a significant relationship was observed between self-efficacy and the number of pregnancies and children, consistent with previous studies [8, 20]. A significant and positive relationship was observed among breastfeeding self-efficacy, previous breastfeeding experience, and the timing of first breastfeeding, consistent with Bandura's theory. Bandura believed that having breastfeeding experience is a contributing factor to breastfeeding self-efficacy [21]. Moreover, Brandao reported that breastfeeding self-efficacy can help identify pregnant women at higher risk of prematurely discontinuing breastfeeding and who may require additional intervention from health providers to ensure breastfeeding success [22]. Adequate nutrition during infancy and early childhood is essential to ensure that children reach their full potential in terms of growth, health, and development [4]. Early nutritional deficiencies have been linked to long-term growth and health problems [5]. The demonstrated benefits of breastfeeding and its superiority over formula feeding are now undisputed, as reflected in the WHO and UNICEF recommendations for optimal infant feeding. It is set out in the Global Strategy to include EBF for the first 6 months of life and the introduction of adequate and safe complementary foods from six months, with continued breastfeeding up to two years or beyond [4, 5, 19]. This study revealed no significant relationship between breastfeeding self-efficacy and maternal age. This finding is consistent with the study by Gonzales [6]. In this study, a significant relationship was observed between the level of the mother's education, the spouse's education, the mother's occupation, the spouse's occupation and self-efficacy. These data contradict those obtained in other studies [6, 16]. A significant relationship was observed between breastfeeding self-efficacy and place of residence, inconsistent with the results of the study by Moafi et al. [8]. The results of the study showed a significant relationship between breastfeeding self-efficacy

and delivery type, which is in contrast to Dilk's study in Turkey [20].

The limitation of this study was that the sample consisted of postpartum women who presented to the Social Security Hospital in Zahedan City. This research does not claim that the findings are representative of all women in Zahedan City. It is difficult to state that the sample used fully represented the sociocultural groups living in the province. It is important to conduct further studies to assess the scale's psychometric properties across different groups. Another limitation of this study was its cross-sectional design, which means that the relationships between breastfeeding self-efficacy and sociodemographic variables do not necessarily imply causation. Therefore, interventions to enhance breastfeeding self-efficacy are promising to improve EBF.

Conclusion

In conclusion, 13 factors were identified related to breastfeeding self-efficacy: Maternal education, spouse's education, maternal occupation, spouse's job, place of residence, previous experience of breastfeeding, number of pregnancies, having two or more children, type of delivery, gender of the baby, skin-to-skin contact, skin-to-skin contact time, and number of breastfeeding times in 24 hours. Considering the effects of demographic and obstetric factors, it is suggested that more training and counseling be provided to at-risk groups to improve breastfeeding self-efficacy.

Ethical Considerations

Compliance with ethical guidelines

This study was approved by the Ethics Committee of Islamic Azad University, Zahedan Branch, Zahedan, Iran (Code: IR.IAU.ZAH.REC.1403.031).

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