

Predictors of breastfeeding self-efficacy among postpartum women in RSUD IA Moeis Samarinda

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Abstract. Background: WHO recommends the practice of early initiation and exclusive breastfeeding for the first 6 months of life followed by breastfeeding with complementary foods up to 2 years of age. However, currently, the global prevalence of breastfeeding in infants less than 6 months of age is under 50%. Objective: This study aims to predict the factors associated with breastfeeding self-efficacy in RSUD IA Moeis. Methods: A cross-sectional study with multiple logistic regression tests were used to analyze 56 postpartum women. Key variables analyzed included breastfeeding experience and observation of others, adjusted for occupation, education, verbal persuasion, and physical-emotional conditions. Result: Variables associated with Breastfeeding Self Efficacy (BSE) were breastfeeding experience (p-value 0.023) and observation of others (p-value 0.002) adjusted by occupation, latest education, verbal persuasion, and physical emotional conditions. The most dominant variable is the observation of others with Odds Ratio = 61.107 (95% CI OR = 5.478-711.504). Conclusion: Observation of others is the strongest predictor of breastfeeding self-efficacy among postpartum mothers at RSUD IA Moeis. Mothers who observed others successfully breastfeeding were 61 times more likely to have high BSE than those who did not. Keyword: Breastfeeding self-efficacy, breastfeeding experience, postpartum, sociodemographic.

1 Introduction

Human milk provides optimal nutrition for babies. The WHO recommends early initiation of breastfeeding and exclusive breastfeeding for the first 6 months, followed by continued breastfeeding with complementary foods up to 2 years. However, the global prevalence of breastfeeding for infants under 6 months remains below 50% [1]. This figure still falls short of the World Health Assembly (WHA) Global Target for Nutrition for 2025, which aims to achieve at least 50% exclusive breastfeeding coverage during the first six months of life [2]. It is important to identify modifiable factors influencing breastfeeding behaviour. Previous research has shown that breastfeeding self-efficacy is closely related to breastfeeding practices, influenced by mothers' education level, attitudes, early breastfeeding initiation, and social support [3]. Breastfeeding Self-Efficacy (BSE) originated from Bandura's self-efficacy theory, identified by Dennis as an important factor in the psychology of breastfeeding and predicts breastfeeding duration and success [4,5].

Self-efficacy in Breastfeeding Self Efficacy (BSE) consists of four sources of

information: performance accomplishment, which refers to the way mothers breastfeed their babies; vicarious experience, gained by observing other mothers breastfeeding; verbal persuasion, which involves intervention support from close individuals; and psychological emotional states, such as pleasure, fear, or pain that can affect maternal BSE level [4]. Low maternal BSE during pregnancy is one of the associated negative factors of breastfeeding experiences, therefore health workers should also provide interventions in improving self-efficacy to give mothers a positive experience of breastfeeding in the early postpartum period [7]. A mother's high level of breastfeeding self-efficacy can also have a positive impact on the frequency and duration of the mother breastfeeding her baby. Nineteen studies found that self-efficacy as one of the biopsychosocial factors influencing the intensity and duration of breastfeeding [8]. In addition, the high level of maternal self-efficacy in breastfeeding is also positively related to the success of exclusive breastfeeding [9].

BSE is strongly influenced by cultural context, highlighting the need for further research in low- and middle-income countries, particularly those with low breastfeeding rates, such as Indonesia. The exclusive breastfeeding rate in Indonesia in 2021 decreased by 20.7%. Similarly, in East Kalimantan Province, exclusive breastfeeding coverage in 2021 was 53.6% and there was a decrease of 24.2% [10]. In Samarinda, exclusive breastfeeding has decreased by 19.6% from the 2020 coverage rate (Samarinda DKK, 2021, 2022). Exclusive breastfeeding for infants under 6 months in Samarinda Seberang area remains below the average exclusive breastfeeding rate in Samarinda City [11,12]. Although there are many studies on Breastfeeding self-efficacy in several health facilities in Indonesia, the number is still limited. Given that self-efficacy is strongly influenced by several sociocultural factors, the results of previous studies in local and international literature may not necessarily represent BSE in postpartum mothers in an area, especially in Inche Abdul Moeis Samarinda Hospital which is located in the Samarinda Seberang area. This is related to the establishment of RSUD IA Moeis Samarinda as a Mother and Baby Friendly Hospital, one of the implementation of integrated and complete maternal and infant protection measures includes a written policy on management that supports maternal and infant health services including exclusive breastfeeding and organizes adequate services for postpartum, join care including assisting mothers to breastfeed properly. Therefore, this study aimed to analyse the factors that influence BSE in postpartum mothers at RSUD IA Moeis Samarinda.

2 Materials and methods

This study employed descriptive analysis research with a cross sectional approach and was conducted in the obstetrics room of RSUD IA Moeis Samarinda from mid-January to mid-March 2024. The selection of research location was based on data indicating that exclusive breastfeeding coverage rate in the Samarinda Seberang area remains below the average exclusive breastfeeding rate in Samarinda City. This is relevant to the designation of the RSUD IA Moeis, located in Samarinda Seberang as a Mother and Baby Friendly Hospital. According to the recent data, there were 156 deliveries at RSUD IA Moeis in the last two months (November - December 2023).

The study population consisted of all postpartum women at RSUD IA Moeis from January to March 2024. Using a sample size formula, 56 postpartum mothers were selected through non-random purposive sampling. The technique was due to the limited sample size and the need to ensure that participants met the specific criteria required for the study. The study samples comprised postpartum women who delivered at RSUD IA Moeis Samarinda and met the inclusion criteria: age 20-45 years, willing to participate as respondents, in good health along with their babies, and classified as Multipara and Grande Multipara).

The independent variables in this study included socio-demographic factors (occupation, latest education, parity and mode of delivery), breastfeeding experience, observation of

others, verbal persuasion, and physical and emotional state, while BSE served as the dependent variable. Questionnaire instruments were used to obtain socio-demographic data (occupation, latest education, parity and mode of delivery), while data on breastfeeding experience, observation of others, verbal persuasion and physical and emotional state were measured using Likert scale. BSE was assessed using the BSE Short Form questionnaire, translated and validated into Indonesian, comprising 12 statements. The BSE score ranges from 12 to 60, with categories of low and high based on the median total score of the respondents' total BSE score.

Data were collected by trained enumerators on the first day of postpartum. Univariate analysis was conducted to determine the frequency distribution of all variables. Bivariate analysis, using Pearson chi-square and Spearman test, examined the correlation between sociodemographic and BSE. Multivariate analysis was conducted using multiple logistic regression with SPSS 27.0. This study received ethical approval from the Health Research Ethics Committee of the Faculty of Medicine, Mulawarman University, Samarinda on 8 November 2023 (NO.208/KEPK-FK/XI/2023).

3 Results and discussion

The results of the Kolmogorov-Smirnov test on sociodemographic data revealed an abnormal distribution ($p < 0.05$). The median age of respondents was 31 years. Majority of the respondents were multiparous. Almost all respondents were unemployed (85%), 50% of respondents were high school graduates, and 73.2% had vaginal mode delivery. The socio-demographic characteristics of respondents (maternal age, parity, latest education, maternal occupation, and type of delivery) are shown in Table 1.

Table 1. Frequency distribution of sociodemographic characteristics of respondents (n=56)

Variable	n	%
Age		
20 – 35 years old	41	73.2
> 35 years old	15	26.8
Latest education		
Elementary School	3	5.4
Junior High School	19	33.9
Senior High School	28	50
College Graduates	6	10.7
Occupation		
unemployed	48	85
Government officers	3	5.4
Private employee	3	5.4
Farmer/ labour	2	3.6
Mode of delivery		
Vaginal	41	73.2
Caesar	15	26.8
Parity		
Multiparity	47	83
Grande multiparity	9	16.1

Source: Primary research data, 2024.

The value of BSE respondents in relation to socio-demographic are shown in Table 2 The Spearman rho test revealed that only the mother’s last education is significantly related to Breastfeeding Self-Efficacy (p -value < 0.05).

Table 2. Relationship between sociodemographic characteristics and breastfeeding self-efficacy in postpartum mothers at RSUD ia moeis samarinda (n=56)

Variable	Breastfeeding self efficacy		p-value
	Low (n=25)	High (n=31)	
Age			
20 – 35 years old	17	24	0.429
> 35 years old	8	7	
Latest education			
Elementary School	2	1	0.020*
Junior High School	11	8	
Senior High School	12	16	
College Graduates	0	16	
Occupation			
Unemployed	24	24	0.052
Government officers	0	3	
Private employee	1	2	
Farmer/ labour	0	2	
Parity			
Multiparity	20	27	0.493
Grande multiparity	5	4	
Mode of delivery			
Vaginal	18	23	0.854
Caesar	7	8	

*p-value < 0.05 (significant) from Chi Square and Spearman rho tests

Table 3 demonstrates a significant relationship between breastfeeding experience, observation of others, verbal persuasion, and physical and emotional conditions with the level of BSE (p-value <0.05).

Table 3. Relationship between variables with breastfeeding self efficacy (BSE) in postpartum mothers at RSUD IA Moeis Samarinda (n=56)

Variable	Breastfeeding self efficacy (BSE)		p-value
	Low (n=25)	High (n=31)	
Breastfeeding experience			
Poor	23	5	0.000*
Good	2	26	
Observation of others			
Poor	23	4	0.000*
Good	2	27	
Verbal persuasion			
Poor	19	7	0.000*
Good	6	24	
Psychological and emotional conditions			
Poor	21	6	0.000*
Good	4	25	

*p-value <0.05 (significant) from the chi square test results

Table 4. Predictors of breastfeeding self-efficacy among postpartum in RSUD IA Moeis logistic regression model (n = 56)

No	Independen Variable	Sig	Exp(B)/OR	95% C.I. for Exp(B)
1	Breastfeeding Experience	0.023	20.252	1.517-270.400
2	Observation of others	0.002	61.107	4.431-842.649

Note: p-value omnibus test 0,000
Nagelkerke R Square 0,854

The multiple logistic regression test results (Table 4) revealed that breastfeeding experience (p-value = 0.023) and observation of others (p-value = 0.002) were significantly associated with BSE. Observation of others was the variable most strongly associated with BSE, with an Odds Ratio = 61.107 (95% CI OR = 5.478-711.504). This indicates that mothers with good observation of the breastfeeding success of others have a 61.1 times chance of having a high BSE value compared to mothers who have less observation. Parameters of this variable include mothers seeing other people breastfeeding, seeing breastfeeding advertisements, talking to a breastfeeding mother, having a family member who breastfeeds, receiving breastfeeding teaching, and gaining self-confidence when seeing other people's success in breastfeeding.

This finding aligns with Bandura's self-efficacy theory, suggesting that positive observations enhance confidence [13]. A mother's previous experience with breastfeeding might enhance her confidence and influence her breastfeeding practice. Several studies have shown that high levels of BSE were related to favorable past breastfeeding experiences [14]. For mothers lacking personal breastfeeding experience, observing the success of others can serve as an invaluable resource [15].

The findings of this study align with previous studies, which highlights that family support during the early postpartum period is a key factor influencing lactation success and maternal self-efficacy in breastfeeding. Knowledge and experience about breastfeeding can provide real examples for mothers to observe directly [16]. Information regarding nursing skills and abilities can be obtained from other people's experiences, either directly or indirectly through print media or video recordings. This finding may affect a mother's self-efficacy, particularly among first time mothers. The effectiveness of observation is influenced by factors such as the role model, demonstration method, and sociodemographic traits like age, education, culture, and habits [17]. Ultimately, healthcare providers should focus on enhancing observational learning to increase maternal efficacy in breastfeeding.

4. Conclusion

The findings of this study highlight that the most dominant variable associated with Breastfeeding Self-Efficacy (BSE) among postpartum mothers at RSUD IA Moeis is the observation of others. Specifically, mothers who observed successful breastfeeding practices were 61 times more likely to have high BSE compared to those with limited observation. This emphasizes the importance of providing new mothers with opportunities to observe successful breastfeeding, as well as the role of social learning and support in enhancing breastfeeding confidence and efficacy.

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