

Determinants Of Breastfeeding Self-Efficacy In Primiparous Mothers In Yogyakarta City

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ABSTRACT

WHO recommendations through the global strategy "Gold Standard of Infant and Child Nutrition" place breast milk as the first and main intake for babies. Exclusive breastfeeding in the world is still low at 41%, the target for 2030 is 70%. Primiparous mothers are generally unsure and doubt their ability to breastfeed and produce sufficient breast milk. This study analyzes the determinants of breastfeeding self-efficacy among primiparous mothers in Yogyakarta City. Research using analytical survey methods, cross sectional approach. The sample technique uses nonprobability sampling. Research subjects were taken using purposive sampling based on the sample size of 64 respondents (primiparous who had babies aged 0-6 months). The research location was Mantrijeron and Umbulharjo Public Health Center, Yogyakarta. Dependent variables include maternal age, education, employment, family income, knowledge about exclusive breastfeeding and breastfeeding intentions. Independent variable of breastfeeding self-efficacy. Data were analyzed univariately, bivariately and multivariately with logistic regression tests using the STATA program with a significance level of the α test <0.05 . Education level and income are related to breastfeeding self-efficacy. Meanwhile, age, employment, knowledge and breastfeeding intention were not significantly related. The factor that greatly influences breastfeeding self-efficacy is education. The findings in this study were that the variables of education level and family income influenced primiparous breastfeeding self-efficacy and education was a very influential factor. Further studies are needed with interventions to increase the self-efficacy of primiparous mothers and pay attention to educational background and family income.

Keywords:

Education, breastfeeding self-efficacy, primiparous mothers

INTRODUCTION

The World Health Organization (WHO) has recommended giving exclusive breast milk to babies, even the world health organization together with UNICEF has established a global strategy, namely the "Gold Standard of Infant and Child Nutrition" which places breast milk as the first and main intake for babies¹. Exclusive breastfeeding in Indonesia is regulated in Government Regulation Number 33 of 2012 which states that the best food pattern for newborns is to provide breast milk immediately after birth until the age of 6 months and continue with complementary foods while breast milk is given until the age of 2 years².

Breast milk has many benefits for babies and mothers. The Lancet Breastfeeding Series³ proves that exclusive breastfeeding can reduce 88% of infant mortality due to infections in the age range under three months, reduce the incidence of allergies, prevent various diseases including: digestive, respiratory diseases, urinary tract infections, otitis media, asthma, fever, diabetes, and dental caries^{4,5}. In addition, babies who receive breast milk will grow and develop optimally and can increase the warmth of the baby through skin contact with the mother. Mothers with longer breastfeeding duration according to Victoria et al.⁶ can reduce the risk of developing cancer and type 2 diabetes mellitus.

The percentage of exclusive breastfeeding in the world is still low at 41%, while the target to be achieved by 2030 is 70%⁷. The Indonesian Ministry of Health has targeted exclusive breastfeeding coverage of 80%. Based on data from the Indonesian Demographic and Health Survey for 2017, it shows that 52% of babies aged less than six months are exclusively breastfed, but the median duration of exclusive breastfeeding is only three months⁸. Exclusive breastfeeding coverage in Yogyakarta special region province experienced fluctuations, namely based on profile data (2019) it was 77.6%, increasing to 81.12% in 2020. However, in 2021 it fell to 80.18%⁹. This data shows that the situation in the field of breastfeeding has not been implemented on a massive scale because intervention programs are less effective.

The research results prove that maternal self-efficacy is a significant predictor of initiation, duration and exclusivity of breastfeeding. Women who have high self-efficacy will be more motivated to breastfeed exclusively and be able to face the challenges of continuing to breastfeed their babies¹⁰. Self-efficacy was adapted by Cindy-Lee Dennis in 1999 into the theory of breastfeeding self-efficacy (BSE). BSE is a mother's self-confidence or confidence in her ability to breastfeed her baby¹¹. Self-efficacy does not grow by itself, but is formed in a triangular relationship between personal characteristics, behavioral patterns and environmental factors¹². The success of breastfeeding a baby can be influenced by BSE where self-efficacy can determine the mother's desire to breastfeed the baby, the efforts made to be able to breastfeed and the actions taken to deal with breastfeeding problems.

The breastfeeding process is a natural thing but requires skills and education, especially for primiparous mother who are giving birth for the first time, with the most common problem being limited information regarding baby care. Primiparous targets are included in the vulnerable population compared to multiparous because these young mothers usually do not have much experience with breastfeeding so they are very vulnerable to experiencing problems while breastfeeding their babies and resulting in failure to breastfeed and weaning prematurely^{13,14}. In addition, primiparous have lower self-efficacy than multiparous and a mother in the early postpartum also faces many challenges, both physical and emotional^{15,16}. Primiparous mother are often unsure about their ability to breastfeed and doubt their ability to produce breast milk in sufficient quantities¹⁷.

Considering the uniqueness of primiparous mothers and the need for greater knowledge about the practice of exclusive breastfeeding to increase self-confidence among this group of people, the author is interested in conducting research on the determinants of breastfeeding self-efficacy among primiparous mothers in Yogyakarta City.

MATERIAL AND METHOD

This research was carried out using an analytical survey method using a cross sectional approach. The sampling technique in this research used a nonprobability sampling technique. Research subjects were taken by purposive sampling based on the sample size of 64 respondents¹⁸ with the inclusion criteria: Primiparous mothers with babies aged 0-6 months, term births, single babies, mothers with healthy babies, none congenital abnormalities (cleft lip and palate and gastrointestinal abnormalities). Exclusion criteria: mothers with chronic diseases (diabetes mellitus, kidney disease, heart disease, hypertension) and mothers who are not willing to be respondents. The research was conducted in the working area of the Mantrijeron and Umbulharjo Health Centers, Yogyakarta City. The dependent variables are maternal age, education, employment, family income, knowledge about exclusive breastfeeding and intention to breastfeed. The independent variable is breastfeeding self-efficacy. There are two research instruments, namely the breastfeeding self-efficacy scale short form (BSES-SF)¹⁹ and a sociodemographic characteristics questionnaire. BSES-SF is a confidence and self-confidence questionnaire regarding breastfeeding which consists of 14 statement items. Each item has a five-point Likert scale with a total score of 14-70. Baseline demographic data were summarized by descriptive statistics. Chi-square were used to compare equivalence on demographic data and multivariately with logistic regression tests using the STATA Program with a significance level of the α test < 0.05. Ethics for conducting research were obtained from the Research Ethics Commission of the Faculty of Medicine, Sebelas Maret University Number 107/UN27.06.11/KEP/EC/2024 dated May 8, 2024.

RESULTS AND DISCUSSION

1. Baseline demographic characteristics of the study sample

Table 1 Frequency Distribution of Respondents based on demographic characteristics (n=64)

Karakteristik	N	%
Age		
< 20 year	1	1,6
20-30 year	60	93,8
>30 year	3	4,7
Education level		
Primary	10	15,6
Secondary	24	37,5
High	30	46,9
Employment		
Employed	24	37,0
Housewife	40	62,5
Family income		
Above the regional minimum wage	18	28,1
Below the regional minimum wage	46	71,9
Knowledge of exclusive breastfeeding		
High	50	78,1
Moderate	14	21,9
intention to breastfeed		
Moderate	7	10,9
Strong	32	50,0
Very strong	25	39,1

As presented in Table 1, according that all respondents in this study were primiparous breastfeeding mothers in the productive age range. As many as 46.9% of respondents had a high level of education. Most respondents (62.5%) did not work or were housewives with a family income of less than 2,324,775 IDR (71.9%). Knowledge about exclusive breastfeeding is mostly good (78.13%), have strong intentions/intentions to breastfeed their babies (50%).

2. Breastfeeding self-efficacy

Table 2 Breastfeeding self-efficacy of primiparous mothers

Breastfeeding self-efficacy	N	%
Low	40	62,5
Moderate	13	20,3
High	11	17,2
Total	64	100

Most primiparous mothers (62.5%) have low self-efficacy in caring for and breastfeeding their babies.

3. Faktors that influence breastfeeding self-efficacy

Table 3 Relationship of Breastfeeding self-efficacy of primiparous mothers with demographic characteristics (n=64)

Primiparous Characteristic	Self-efficacy						P value
	Low		Moderate		High		
	n	%	n	%	n	%	
Age							
< 20 year	1	100	0	0	0	0	0,839
20-30 year	37	61,7	12	20,0	11	18,3	
>30 year	2	66,7	1	33,3	0	0,0	
Education level							
Primary-secondary	26	76,5	3	8,8	5	14,7	0,007
University	14	46,7	10	33,3	6	20,0	
Employment							
Employed	12	50,0	7	29,2	5	20,8	0,245
Housewife	28	70,0	6	15,0	6	15,0	
Family income							
Above the regional minimum wage	7	38,9	7	38,9	4	22,2	0,032
Below the regional minimum wage	33	71,7	6	13,0	7	15,2	
Knowledge of exclusive breastfeeding							
High	31	62,0	12	24,0	7	14,0	0,236
Moderate	9	64,3	1	7,1	4	28,6	
intention to breastfeed							
Moderate	5	71,4	2	28,6	0	0,0	0,726
Strong	19	59,4	6	18,8	7	21,9	
Very strong	16	64,0	5	20,0	4	16,0	

Bivariate analysis shows that the variables that influence breastfeeding self-efficacy in primiparous mothers are education level (p 0.007) and family income (p 0.032). Meanwhile, the variables age, occupation, knowledge and breastfeeding intention were not significantly related (p>0.05).

Multivariate analysis is carried out to analyze data consisting of many variables and it is suspected that these variables are related to each other. In this research, the analysis used is a logistic regression test because the variable scale is categorical. From the bivariate analysis, variables with a p value <0.25 were included in the multivariate analysis, namely education, employment, family income, and mother's knowledge regarding exclusive breastfeeding.

Table 4 Relationship of demographic characteristics and breastfeeding self-efficacy

Variabel	B	Wald	Sig	Exp(B)	95% CI	
					Lower	Upper
Education	-1.363	3.482	.002	1.489	1.071	6.545
Occupation	-1.192	1.673	.196	.304	.050	1.849
Income	.357	.212	.645	1.430	.312	6.545
Knowledge	.007	.000	.992	1.007	.253	4.006

Based on the logistic regression test, the results showed that the factor that greatly influences breastfeeding self-efficacy in primiparous mothers is education (p value 0.002).

4. Discussion

Self-efficacy is the belief that an individual has in something that has not been done so that it can be an indicator for someone in making choices and motivating themselves to be successful in achieving the goals of the action they will take¹². High breastfeeding self-efficacy shows a mother's high sense of confidence in breastfeeding²⁰. The postpartum period is a transition period for mothers, especially primiparous mothers, to achieve their role as mothers. This period is full of various hopes regarding the ideal mother's role and optimal baby health. This can be a trigger for postpartum mothers to find out how to care for their babies properly, including breastfeeding.

All participants in the study were primiparous mothers who had never had previous breastfeeding experience, totaling 64 people, the majority of whom were in the productive age range (20-30 years). Based on Mercer's Theory²¹ stated that there are many factors that influence the role of a mother, one of which is the age at first birth. According to Bandura²² self-efficacy can be obtained from past experiences so that multiparous mothers have a lot of experience in caring for children while primiparous have less experience and still need help from their parents. Observing other people, either directly, watching videos or through other media, will have an impact on the level of self-efficacy in breastfeeding mothers. Demographic and psychosocial similarities will make the role model the most effective for primiparous. Observing role models in the form of success in breastfeeding will increase the mother's self-efficacy and she will imitate this behavior and then compare it with herself. The more similarities in characteristics with the individual in the role model, the more effective it will be in increasing the mother's self-efficacy. The close people around the mother will influence the mother's attitudes and actions¹¹.

As many as 46.9% of respondents in this study had a high level of education. These respondents had 20% more breastfeeding self-efficacy scores in the high category than respondents with primary-secondary education levels. This is in accordance with research by Handayani and Kosnin²³ which states that mothers' breastfeeding behavior is influenced by personal factors such as level of education, attitudes and self-confidence. Opinion from Notoadmodjo²⁴ stated that in general the higher a person's education, the easier it is to obtain information and ultimately influence a person's behavior. The presence of higher education influences one's mindset to act and make the best decisions thus emerging the nature of maturity. Mothers who did not complete their college education had lower breastfeeding self-efficacy, most mothers with less education had limited knowledge about their baby's growth and development as well as proper infant care methods^{25,26}.

Most of the respondents (62.5%) respondents were unemployed or as housewives with family income less than 2,324,775 IDR (71.88%). Most of the mothers as housewives who do not have fixed jobs outside the home and have no income so are highly dependent on their families. In addition to economically, mothers sometimes also assist their parents in caring for their babies at home. Low

income causes mothers' self-efficacy to also be low, according to the results of Mazlom's research²⁷ where maternal self-efficacy is higher in mothers with higher family income compared to mothers who come from families with low income. This causes dependency on their parents and becomes a habit where primiparous mothers with less income will receive financial support to meet their daily needs in baby care. Another study conducted in Iran by Faridvand et al.²⁸ explained that low income and giving birth via cesarean section can affect breastfeeding self-efficacy in women.

Respondents' knowledge about exclusive breastfeeding was mostly good (78.1%), this was probably due to their maturity and ability to accept being parents. Knowledge about health can be obtained through formal education, counseling and mass media information, including social media, which is currently widely accessed by young people. Having good knowledge about exclusive breastfeeding will raise awareness and influence attitudes towards prelacteal feeding (food or drink given to neonates before breast milk comes in). Knowledge also functions as motivation in attitudes and actions, including in refusing prelacteal feeding²⁹. Mothers of knowledge about exclusive breastfeeding plays an important role in providing exclusive breastfeeding. Knowledge is influenced by a person's awareness, if someone is aware of what they know then is interested in trying it so they are willing to do it based on what they know³⁰. Knowledge and understanding really determine a mother's self-confidence in breastfeeding, similar results have been found in other studies by Citrawati³¹ showing that there are differences in breastfeeding self-efficacy scores from mothers who have different knowledge, where mothers who have higher knowledge will show higher breastfeeding self-confidence than mothers with low knowledge. Based on Green's Theory³² states that one thing that influences a person's behavior is knowledge, where knowledge is included in a person's predisposing factors to act, which in this case is exclusive breastfeeding..

Most respondents had strong intentions/intentions to breastfeed their babies (50%). This means that the respondent has made a behavioral commitment, namely breastfeeding behavior, where there is an expectation that the respondent estimates in showing the breastfeeding action that he will carry out. Breastfeeding intention can be the most significant aspect to predict a mother's decision to breastfeed³³. The intention to give exclusive breastfeeding is the mother's desire to give only breast milk to the child the baby from birth to six months old. An individual's intention to do something is a function of attitudes towards the manifestation of behavior in certain situations, as a personal (attitudinal) factor; as well as norms that influence the manifestation of a person's behavior and motivation to comply with these norms as social norms (normative)³⁴.

The research results showed that the majority of respondents, namely 62.5%, had a breastfeeding self efficacy score in the low category, which means that primiparous mothers are less confident and have low self-confidence in terms of breastfeeding or exclusive breastfeeding. Similar to our study Liu et al.³⁵ and Shrestha et al.¹⁷ who reported that primiparous mothers need education and support because primiparous mothers are often less confident in their ability to breastfeed and produce sufficient amounts of breast milk compared to multiparous. Different results were found in the research of Salonen et al.³⁶ shows that young mothers tend to have higher maternal self-efficacy. In general, primiparous mothers are not yet cognitively ready to carry out their role as parents due to lack of experience. Mothers must carry out their role with the abilities they have in caring for their babies and this becomes a challenge in their lives. Interactions between primiparas and their babies tend to be negative and mothers are less sensitive and less involved in baby care.

Self-efficacy based on Social Cognitive Learning Theory by Bandura³⁷. self-efficacy describes a person's belief in their ability to carry out certain actions in order

to realize the expected or desired results²². The mother's confidence in the success of providing exclusive breast milk will help the mother to determine certain actions that can be used or not and how much effort will be used to achieve the goal, build self-motivation, and whether these actions will be able to be continued if there are obstacles or difficulties and react positively in facing these difficulties¹¹. Based on Self-Efficacy Theory¹¹ breastfeeding mothers will assess four main sources of information as a basis for determining their ability to breastfeed their babies, namely performance achievements (such as previous breastfeeding experience), other people's experiences (such as seeing other breastfeeding mothers, peer counseling), verbal persuasion. (such as encouragement from influential people, such as friends, family, and lactation consultants), and physiological responses (such as pain, fatigue, anxiety, or stress)¹².

The research results found that there were two variables that influenced breastfeeding confidence in primiparous, namely education level and family income. Meanwhile, the variables age, occupation, knowledge and breastfeeding intention were not significantly related ($p > 0.05$). Primiparous mothers who come from families with a higher average income have higher breastfeeding self-efficacy scores than mothers with a low family income. Families with low incomes often cannot meet the family's needs, so mothers remain dependent on their parents so that their daily needs can be met, including baby care.

According to the logistic regression test showed that the factor that greatly influences breastfeeding self-efficacy in primiparous is education. Primiparous with a high level of education have stronger self-confidence in their ability to breastfeed compared to mothers with primary and secondary educational backgrounds. Similar results have been found in other studies by Handayani and Kosnin²³ which states that mothers' breastfeeding behavior is influenced by personal factors such as level of education, attitudes and self-confidence.

Previous research explains that higher education at a young age causes individuals to have the ability and great willingness to learn, both searching for information independently and learning based on other people's experiences in the process of breastfeeding a baby. Thus, someone who has a higher education will more easily receive information, education and have higher confidence in their own abilities. This is in accordance with the Health Promotion Models Theory where a person's self-efficacy will be influenced by the individual's personal factors, especially from the educational aspect³⁸. Common problems in primiparous women who give birth for the first time are a lack of basic knowledge about breast milk, lack of skills, new life changes as a mother, and painful initial experiences when they are not ready to breastfeed their baby. These things make primiparous very vulnerable to experiencing problems during breastfeeding which can result in breastfeeding failure and premature weaning³⁹.

CONCLUSION

There are two variables that influence breastfeeding self-efficacy in primiparous mothers, namely education level and family income. Meanwhile, the variables age, occupation, knowledge and breastfeeding intention were not significantly related. The factor that greatly influences breastfeeding self-efficacy in primiparous mothers is education. Further studies are needed with interventions to increase the self-efficacy of primiparous mothers and pay attention to educational background and family income.

AUTHORS' CONTRIBUTIONS

All authors have agreed on the final version and meet at least one of the following criteria

- Substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data;

- Drafting the article or revising it critically for important intellectual content.

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DATA AVAILABILITY STATEMENT

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request

DISCLOSURE STATEMENT

The views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or position of any affiliated agency of the authors. The data is the result of the author's research and has never been published in other journals.

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