Original Research

Employment Status as Dominant Predictive Factor of Early Breastfeeding Cessation

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ABSTRACT

Background: Early cessation of breastfeeding is a significant health problem, considering that exclusive breastfeeding has been proven to provide important benefits for the health of mother and child. Risk factors such as maternal factors including age, education level, employment status, family income, parity, and mode of delivery contribute to the decision to stop breastfeeding early.

Purpose: This study aimed to identify dominant factors that contribute to early cessation of breastfeeding

Method: This study applied a cross-sectional design. 30 breastfeeding mothers who exclusively breastfeed after giving birth up to six months were selected as respondents through purposive sampling technique. Respondents were then asked to fill out the questionnaire of the Breastfeeding Attrition Prediction tool (BPAT) to identify early breastfeeding cessation. Data analysis was performed using univariate, bivariate, and multivariate methods using chi-square and logistic regression.

Result: The study clearly shows that parity, employment status, and mode of delivery are significantly linked to each other with early breastfeeding cessation ($p < 0.05$). Employment status is the most influential factor in early breastfeeding cessation p-value 0.000 (OR=14.34; CI 95% 6.7–32.4).

Conclusion: Employment status was the dominant predictive factor that has the potential for early breastfeeding cessation. Working mothers are more likely to opt for early weaning due to time constraints, workplace challenges, and fatigue.

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INTRODUCTION

Breastfeeding is one of the most natural ways to meet nutritional needs and support a baby's growth and development providing not only optimal nutrition but also enhancing the immune system and strengthening the emotional close interactions between mother and child (Muro-Valdez et al., 2023). According to World Health Organization (WHO) guidelines, exclusive breastfeeding for the first six months of a baby's life, followed by complementary feeding and continued breastfeeding until the age of two years or beyond, is strongly recommended to support optimal growth and development (Nurokhmah et al., 2023). However, in many countries, including Indonesia, many mothers experience early weaning, which refers to the cessation of breastfeeding before reaching the recommended duration (Gunawan et al., 2024).

Early weaning can occur due to various factors influencing a mother's decision to stop breastfeeding. These factors include physical and psychological challenges faced by the mother during breastfeeding, as well as less supportive social and economic conditions and a lack of support from family, friends, and the surrounding community (Pinheiro et al., 2021). Common factors that contribute to early weaning include perceived insufficient breast milk production, pain or discomfort during breastfeeding, maternal health issues, and a lack of knowledge and skills related to breastfeeding (Wang et al., 2024). Additionally, external factors such as workplace policies, inadequate facilities for breastfeeding mothers, and limited social support also play a crucial role in determining the duration of breastfeeding (Prabasari, 2020).

The percentage of babies in Indonesia who receive exclusive breastfeeding during the first six months of a baby's life has increased consistently in recent years. In 2023, this figure reached 73.97%, up from 72.04% in 2022 (Badan Pusat Statistik, 2023). This increasing trend reflects progress in public awareness of the importance of exclusive breastfeeding for infant health, although additional efforts are still needed to achieve the WHO recommended target (World Health Organization and UNICEF, 2021). The latest data shows that in Jumapolo District, Karanganyar, the exclusive breastfeeding rate in 2024 reached 73.5% of the total number of babies aged 0-6 months in the area. This figure reflects a positive trend in public awareness of the importance of exclusive breastfeeding to support optimal infant growth and health. However, this percentage is still slightly below the national target, which seeks to increase exclusive breastfeeding in a sustainable manner (Badan Pusat Statistik Kabupaten Karanganyar, 2024).

Additionally, in many cases, a lack of understanding about the advantages of breastfeeding and proper breastfeeding techniques can leave mothers feeling inadequate or uncomfortable, which ultimately contributes to early weaning (Lojander et al., 2022). These challenges are further exacerbated when mothers return to work after childbirth, especially in the absence of adequate policies to support continued breastfeeding, such as sufficient maternity leave or designated breastfeeding spaces in the workplace (CDC Nutrition, 2024).

Understanding the risk factors that contribute to early weaning is crucial for designing effective policies and support programs to help mothers breastfeed successfully. By gaining a deeper understanding of the causes of early weaning—at the individual, social, and policy levels—appropriate interventions can be implemented to support mothers in breastfeeding for a longer duration and with greater confidence. This, in turn, will improve the overall health of both mothers and babies (Smith, J. L., & Johnson, 2020b). This study aims to analyze and identify dominant factors that contribute

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to early cessation of breastfeeding, focusing on various variables that can influence mothers' decisions to stop breastfeeding at an early stage, such as social, economic factors, and support from family and health workers

METHOD

This was a quantitative study with a cross-sectional design, conducted in the Jumapolo Health Center, Karanganyar. The population consisted of mothers with children aged 0-6 months living in the work area of the Jumapolo Health Center, totaling 30 participants. Purposive sampling was used to select the sample. The inclusion criteria were mothers with children aged 0-6 months who could communicate effectively and expressed his willingness to participate in this study. The exclusion criteria included mothers with children older than 6 months or those whose children had specific health conditions. Both primary and secondary data were used in this study. Primary data was the result of the questionnaires given to the participant and secondary data was the data obtained from other sources such as WHO, ministry of health and so on. Ethical approval number 249/IX/AUEC/2024 authorized by the Ethics Committee Board of 'Aisyiyah Surakarta University.

Data were collected using questionnaires of The Breastfeeding Attrition Prediction Tool (BAPT) which was designed with four main sub scores: Positive Sentiment Toward Breastfeeding (PBS), Negative Sentiment Toward Breastfeeding (NBS), Social and Professional Support (SPS), and Perceived Behave Control (PBC) and performed directly to the participants.

Data analysis was performed using univariate, bivariate, and multivariate methods. The chi-square test and logistic regression were used with a significance level set at $p < 0.05$. The final logistic regression model was determined through a stepwise backward selection process. All statistical analyses were performed using SPSS version 20 software.

RESULTS

Demographic characteristics of the 30 participants, descriptive statistics, and bivariate, also multivariate analysis are presented in Tables 1, 2, and 3.

Table 1. Demographic Characteristics of The Study Participants

Characteristics	n	%
Age		
17-25	12	40
26-35	18	60
Education		
Elementary-Junior High School	19	63.3
Senior High School etc.	11	36.7
Employment Status		
Employed	20	66.7
Unemployed	10	33.3
Family Income		
Under minimum wage	23	76.7
Up minimum wage	7	23.3

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Parity		
Primiparous	20	66.7
Multiparous	10	33.3
Mode of Delivery		
Normal	22	73.4
SC etc.	8	26.4
Risk of Early Breastfeeding Cessation		
At risk	12	40
Not at risk	18	60

Source: secondary data 2023

Table 1 displays the characteristics of respondents based on age, where most of them are 26-35 years old (60%), in terms of education, the majority are educated at elementary school-junior high school level (63.3%), in terms of employment status, the majority of respondents are employed (66.7%), the majority of family income is below the minimum wage (76%), primiparous status is 66.7%, has a history of normal delivery as much as 73.4% and 60 % has no risk of early breastfeeding cessation.

Table 2. Relationship Between Respondent Characteristics on The Risk of Early Breastfeeding Cessation

Variabel	Risk of Early Breastfeeding Cessation				OR (95% CI)	P Value
	At Risk		Not at Risk			
	n	%	n	%		
Age						
17-25	7	58.3	5	41.7	1.65 (0.75-3.24)	0.367
26-35	6	33.3	12	66.7		
Education						
Elementary-Junior High School	9	47.3	10	52.7	1.78 (1.03-3.42)	0.225
Senior High School etc.	4	36.3	7	63.7		
Employment Status						
Employed	8	40	12	60	13.01 (6.1-25.5)	0.001
Unemployed	7	70	3	30		
Family Income						
Under minimum wage	16	69.6	7	30.4	0.88 (0.45-1.67)	1.000
Up minimum wage	2	28.6	5	71.4		
Parity						
Primiparous	7	35	13	65	2.68 (1.39-5.84)	0.002
Multiparous	2	20	8	80		
Mode of Delivery						
Normal	6	27.3	16	72.7	1.61 (0.88-2.87)	0.048
SC etc.	6	75	2	25		

Source: secondary data 2023

Table 2 shows that there are three variables that are significant or have a relationship to the risk of early weaning, the parity variable with a p-value of .002, then the variable mode of delivery with a p-value of .048, and also the variable of employment status with

a p-value of .001. While the variables of age, education, and family income do not have a significant relationship.

Table 3. Dominant Factors Influencing Early Breastfeeding Cessation

Variabel	P-Value	OR 95 % CI
Employment Status	0.000	14.34 (6.7-32.4)
Parity	0.002	0.22 (1.2-4.6)
Mode of Delivery	0.023	2.12 (1.2-4.2)

Source: secondary data 2023

Table 3 shows that there are three variables that are dominant factors in early breastfeeding cessation, employment status with a p-value of .000, parity with a p-value of 0.002, and mode of delivery with a p-value of .023.

DISCUSSION

The research results clearly show that 12 out of 30 people were at risk of early breastfeeding cessation, as seen from the statistical results in Tables 2 and 3, several factors had a significant influence in increasing the risk of early cessation of breastfeeding, with results showing a strong correlation between the tested variables and this risk, including parity, mode of delivery and employment status.

The majority of respondents in this study were primiparous (66.7%). 7 out of 20 primiparous respondents were at risk of early weaning from breastfeeding. The results of this study are in line with findings from other studies that state that primiparous mothers have a higher risk of experiencing doubts about breastfeeding, when compared to multiparous mothers. These findings highlight significant differences in breastfeeding experiences between first-time mothers and those who have had previous experience. The study also stated that primiparous women are twice as likely to feel anxious or depressed than multiparous women (Lindblad et al., 2022). Several other studies also stated that primiparous mothers are more likely to stop breastfeeding in the first six months compared to multiparous mothers. Factors such as lack of experience and knowledge about breastfeeding are the main factors that cause early weaning in primiparous mothers. Mothers who give birth for the first time often feel unsure about their ability to breastfeed properly. They may feel anxious about whether their breast milk is sufficient or whether their baby is getting the necessary nutrients. Whereas multiparous mothers tend to have more experience and knowledge about breastfeeding, which helps them deal with challenges that may arise during breastfeeding (Green et al., 2022) (Oberfichtner et al., 2023)(Brani et al., 2024).

A history of normal delivery generally supports successful breastfeeding immediately after birth because mothers usually recover faster and babies can get breast milk more easily in the first hour (Ulfa et al., 2023). The findings of this study reveal that childbirth history has a significant influence on early cessation of breastfeeding, with a p value of 0.023, which indicates a strong relationship between this variable and the risk of early cessation of breastfeeding. Based on Table 2, it can be seen that 6 out of 8 mothers who have a history of delivery by Sectio Cesaria (SC) are at risk of early breastfeeding cessation. Several studies also state that mothers with a history of SC delivery have a low success rate of exclusive breastfeeding. Mothers who give birth through SC tend to have more challenges in breastfeeding including delayed milk production and difficulty in breastfeeding positions due to pain in the surgical scar (Hobbs et al., 2016) (Turkdogan

& Akcan, 2020) (Zhang, F., Cheng, J., Yan, S., Wu, H., & Bai, 2019). Normal delivery often allows for faster initiation of breastfeeding because the mother and baby can be together immediately after birth. In contrast, mothers who give birth by SC may take longer to start breastfeeding due to recovery from surgery, which can hinder early initiation of breastfeeding (Liu, L. Y., Roig, J., Rekawek, P., Naert, M. N., Cadet, J., Monro, J., & Stone, 2024) (Alrasheedi, 2023).

The decision to exclusively breastfeed or wean early is influenced by various factors, with the mother's employment status being one of the key determinants. Working mothers often face challenges in exclusively breastfeeding due to time constraints, lack of workplace support, and concerns about milk production (Smith, J. L., & Johnson, 2020a). Based on the result of this study employment status was the dominant predictive factor that has the potential for early breastfeeding cessation. In line with another study which stated that a lack of supportive policies, such as adequate breastfeeding rooms or sufficient maternity leave, increases the likelihood that working mothers will switch to formula feeding. However, mothers who receive strong family support, have knowledge about breastfeeding, and maintain high self-esteem are indeed more likely to continue breastfeeding for an extended period, even while balancing work responsibilities (Lisbona et al., 2020). Research has shown that these factors play a crucial role in facilitating sustained breastfeeding practices. Family support, for example, can provide emotional and practical assistance, making it easier for mothers to overcome challenges. Similarly, knowledge about breastfeeding allows mothers to feel more confident and prepared to handle any difficulties that arise, while high self-esteem is often correlated with better decision-making and resilience, which are essential for managing both work and breastfeeding simultaneously. Regarding the impact of these factors on breastfeeding duration, please refer to the cited research (UNICEF Indonesia, 2024).

Thus, implementing supportive policies for working mothers—such as providing adequate breastfeeding facilities and education on the benefits of exclusive breastfeeding—is essential to help extend breastfeeding duration and reduce early weaning rates (Wolf, J., Dawson, A., & Smith, 2023). Even though this study has several strengths, including a reasonably large sample size and use of well-established instruments, it also has several limitations. First, the manner of recruiting participants. Second, this study relied on Likert-scale questionnaires that offer pre-determined responses. Qualitative research that asks open-ended questions is needed to know more deeply. A live interview might establish better rapport and elicit more detailed and honest responses

CONCLUSION

Referring to the findings obtained in this study, In conclusion, it can be concluded that a mother's employment status plays a pivotal role in the early cessation of breastfeeding, as the pressures of full-time work, insufficient maternity leave, and the absence of supportive workplace policies often leave mothers unable to sustain their breastfeeding routines, compelling them to introduce formula sooner than they had planned. Future studies should explore how workplace policies, economic pressures, and societal attitudes influence breastfeeding duration, aiming to identify solutions that support working mothers in continuing breastfeeding for longer.

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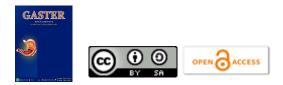
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