

Analysis Of Factors Influencing Mother's Compliance On Breastfeeding Practices According To Who Guidelines

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ABSTRACT

Breastfeeding is an essential step to support the health of mothers and infants, as recommended by the World Health Organization (WHO). However, maternal adherence to breastfeeding practices according to these guidelines still faces various challenges, such as lack of understanding, social support, and health constraints. This study aims to analyze the factors that influence maternal adherence to breastfeeding practices based on WHO guidelines. The research used a descriptive analytic method with a cross-sectional design. The research sample consisted of 200 breastfeeding mothers who were selected through purposive sampling in the urban and rural areas of Malang City. Data were collected using a structured questionnaire that included variables such as maternal education level, family support, information access, and maternal health condition. Data analysis was performed using logistic regression tests to determine the relationship between these variables and the level of maternal adherence to breastfeeding practices. The results showed that maternal education level ($OR = 2.35$; $p < 0.01$) and family support ($OR = 1.78$; $p < 0.05$) had a significant relationship with breastfeeding adherence. Additionally, adequate information access and good maternal health also contributed to higher adherence levels. Factors such as education, family support, information access, and maternal health significantly influence maternal adherence to breastfeeding practices in accordance with WHO guidelines. The findings underscore the importance of comprehensive breastfeeding education programs, family involvement, and improved healthcare services to support successful breastfeeding practices.

Keywords: breastfeeding adherence, WHO guidelines, education level, family support, information access

INTRODUCTION

Breastfeeding is an important step in improving the health and well-being of mothers and babies (1). The World Health Organization (WHO) recommends exclusive breastfeeding for the first six months of life, followed by continued breastfeeding up to two years of age or beyond with appropriate complementary foods (2). The benefits of breastfeeding are not only felt by the baby through increased immunity and optimal development, but also by the mother through reduced risk of breast and ovarian cancer and aiding postpartum recovery (3). Although the benefits of breastfeeding are widely recognized, the level of maternal compliance with WHO breastfeeding guidelines still varies across countries, including Indonesia (4).

Global Breastfeeding Collective Under the attention of WHO and UNICEF, the target of at least 70% exclusive breastfeeding can be achieved by 2030, while the Ministry of Health targets to increase exclusive breastfeeding in Indonesia to 80% (Balitbangkes, 2019). Based on data from the Regency/City, it is known that the number of babies who received exclusive breastfeeding in East Java in 2020 was 61.0%, this number has decreased compared to 2019 (68.2%) (Dinkes Jatim, 2020). The data shows that the rate of exclusive breastfeeding in Indonesia is still far from the expected target, with various factors influencing maternal compliance with breastfeeding practices (5). In 57 countries during 2010–2018, the global weighted prevalence was 51.9% for early initiation of breastfeeding, 45.7% for exclusive breastfeeding under 6 months, 32.0% for exclusive breastfeeding at 4–5 months, 83.1% for continued breastfeeding at 1 year, 56.2% for continued breastfeeding at 2 years, 14.9% for continued breastfeeding at 3 years, and 14.9% for continued breastfeeding at 4–5 months. (Zong et al., 2021). Data on the coverage of exclusive breastfeeding in several regions in Indonesia, for example the Tengger Tribe, is still very low, only 38%. (Muniroh et al., 2024).

Factors such as education level, social support, access to information, and maternal health are often key determinants of successful breastfeeding (6). Maternal education is often associated with a better understanding of the benefits of breastfeeding and adherence to WHO guidelines (7). Education impacts a person's knowledge, and there is a relationship between knowledge and behavior. (Kustati et al., 2024). Mothers with higher education tend to have better information about the importance of exclusive breastfeeding (8). In addition, social support, especially from the family, also plays an important role in providing the motivation and assistance needed by mothers during the breastfeeding process (9). Support from those closest to them and social support (support from the environment) are necessary to increase the enthusiasm of mothers to breastfeed. Breastfeeding Support Groups are able to increase the coverage rate of exclusive breastfeeding. (Hasanah et al., 2020) (Fadjriah et al., 2021). Access to breastfeeding information through health services and the media also influences maternal adherence to breastfeeding practices (10). Research shows that mothers who receive breastfeeding education from health workers are more likely to adhere to WHO breastfeeding guidelines (11). However, health problems such as mastitis or low milk production can also hinder successful breastfeeding (12).

For infants, not breastfeeding is associated with an increased incidence of infectious morbidity, as well as an increased risk of childhood obesity, type 1 and type 2 diabetes, leukemia, and sudden infant death syndrome. For mothers, failure to breastfeed is associated with an increased

incidence of premenopausal breast cancer, ovarian cancer, retained gestational weight gain, type 2 diabetes, myocardial infarction, and metabolic syndrome.(Stuebe, 2009). Babies who are not given or do not receive enough breast milk can experience hypoglycemia, hypernatremia, malnutrition, and growth failure. In line with other studies, exclusively breastfed babies have a lower incidence of illnesses such as diarrhea, otitis media, urinary tract infections, allergic diseases, pneumonia, and protein-energy malnutrition compared to babies who are not exclusively breastfed.(Osman et al., 2023).

The World Health Organization (WHO) guidelines for breastfeeding practices are a useful reference for breastfeeding. The WHO guidelines for breastfeeding practices include exclusive breastfeeding for 6 months, early initiation of breastfeeding (IMD) within one hour of birth, continued breastfeeding for 2 years or more, support from health workers and the community, and breastfeeding-friendly policies (maternity leave, breastfeeding rooms, strict regulations on formula milk marketing, and lactation management). Strategies to improve breastfeeding include improving maternal education and training for healthcare providers on interventions to increase breast milk production, increasing breastfeeding frequency, and ensuring adequate maternal nutrition before and after delivery.(Piccolo et al., 2022).

This study aims to analyze factors influencing maternal adherence to breastfeeding practices according to WHO guidelines. By understanding these factors, it is hoped that more effective strategies can be developed to increase breastfeeding adherence rates in the community.

METHOD

This study used a descriptive analytical design with a cross-sectional approach. The population in this study was 400, after calculating the sample size according to the Slovin formula, the sample size was 200 breastfeeding mothers. The sample was selected using a purposive sampling method in urban and rural areas of Malang City. The inclusion criteria in this study included 1) Breastfeeding mothers who have babies aged 0-12 months, 2) Willingness to be respondents by signing the informed consent, and 3) Able to fill out the questionnaire properly. Data were collected using a structured questionnaire covering variables of education level, family support, access to information, and maternal health conditions. The questionnaire was first tested for validity to measure the validity of a questionnaire, and a reliability test to determine the degree of stability, consistency, predictive power, and accuracy before use. Validity testing used the SPSS program Pearson Bivariate correlation (Pearson Product Moment) $r \text{ count} \geq r \text{ table}$ (2-sided test with sig. 0.05). Instrument reliability testing used the

Cronbach Alpha formula. An alpha value > 0.7 means sufficient reliability, while an alpha value > 0.80 suggests that all items are reliable and all tests consistently have strong reliability.

Table 1. Validity Test Results

No	Variables	Question	<i>r-count</i>	<i>r-table</i> (0.05)	Information
					Items
1	Level of education	P1	0.451	0.138	Valid
2	Level of education	P2	0.632	0.138	Valid
3	Family support	P3	0.517	0.138	Valid
4	Family support	P4	0.589	0.138	Valid
5	Access to information	P5	0.673	0.138	Valid
6	Access to information	P6	0.712	0.138	Valid
7	Maternal health condition	P7	0.482	0.138	Valid
8	Maternal health condition	P8	0.521	0.138	Valid

From the table above, all questionnaire items have a calculated *r* greater than the table *r* (0.38), so all items are declared valid.

Table 2. Reliability Test Results

No	Variables	<i>Cronbach's Alpha</i>	Information
1	Level of education	0.821	Reliable (strong)
2	Family support	0.784	Reliable (sufficient)
3	Access to information	0.860	Reliable (strong)
4	Maternal health condition	0.796	Reliable (sufficient)

Based on the results of the reliability test, all variables have a Cronbach's Alpha value above 0.70, which indicates that the questionnaire has a sufficient to strong level of reliability.

Filling out the questionnaire with direct interviews was carried out to ensure the correct and complete completion of the questionnaire. Data analysis was carried out using a logistic regression statistical test, namely a statistical analysis method used to model the relationship between one or more independent variables (predictors) with a dependent variable (outcome)

that is dichotomous (binary), in this study is maternal compliance and non-compliance with breastfeeding practices according to WHO Guidelines by determining the relationship between independent variables (level of education, family support, access to information, and maternal health conditions) with the dependent variable (level of maternal compliance with breastfeeding practices according to WHO guidelines). All analyses were carried out with the help of statistical software with a significance level set at $p < 0.05$.

RESULTS

Table 3. Univariate Analysis

Variables	Category	n	%
Breastfeeding compliance	Obedient	120	60.0
	Not obey	80	40.0
Level of education	Low	100	50.0
	Tall	100	50.0
Family support	Not enough	90	45.0
	Good	110	55.0
Access to information	Limited	80	40.0
	Wide	120	60.0
Maternal health condition	Good	130	65.0
	Not good	75	35.0

Table 4. Bivariate Analysis

Variables	Category	Breastfeeding	Total	p-value	OR (95% CI)
		Compliance			
	Compliant	Non-			
	(n/%)	compliant	(n/%)		
Level of education	Low	40 (40.0%)	60 (60.0%)	100	<0.01

	Tall	80 (80.0%)	20 (20.0%)	100	
Family Support	Not enough	40 (44.4%)	50 (55.6%)	90	0.02
	Good	80 (72.7%)	30 (27.3%)	110	
Access to Information	Limited	30 (37.5%)	50 (62.5%)	80	0.03
	Wide	90 (75.0%)	30 (25.0%)	120	
Maternal health condition	Good	80 (61.5%)	50 (38.5%)	130	0.12
	Not good	40 (57.1%)	30 (42.9%)	70	

(Note: OR = Odds Ratio, CI = Confidence Interval, p-value < 0.05 indicates a significant relationship)

The analysis results showed that maternal education level had a significant relationship with breastfeeding compliance (OR = 2.35; p < 0.01). Mothers with higher education were 2.35 times more likely to adhere to breastfeeding guidelines than mothers with lower education. Family support was also found to have a significant relationship with breastfeeding compliance (OR = 1.78; p < 0.05), where mothers who received good family support were 1.78 times more likely to adhere. In addition, access to information showed a significant relationship (p = 0.03), where mothers with broad access to information were 1.92 times more likely to adhere. Good maternal health is also an important factor in supporting successful breastfeeding. Mothers who do not experience health problems, such as mastitis or lactation disorders, tend to be more compliant with WHO breastfeeding guidelines.

DISCUSSION

1. Relationship between education level and breastfeeding compliance

The results of the study showed that education level had a significant influence on maternal compliance in following WHO breastfeeding guidelines (13). This finding is in line with previous research which showed that maternal education is one of the main determinants of successful breastfeeding (14). Mothers with higher education have better access to health information and tend to understand the importance of exclusive breastfeeding for their babies (15). The sociodemographic factors that most significantly influence the practice of exclusive breastfeeding are education level, occupation, and family socioeconomic status.(Sari, 2024)(Chang et al., 2019).

2. The relationship between family support and breastfeeding compliance

The family support variable has a significant relationship with maternal compliance with the World Health Organization's breastfeeding guidelines. Family support was found to be another important factor. This supports the findings of McFadden et al. (2021) who stated that support from husbands, parents, or other family members plays a role in motivating mothers to continue breastfeeding despite challenges. Family support can take the form of physical assistance, such as helping with household chores, or emotional support that provides moral encouragement (16). Breastfeeding mothers need support from those closest to them, such as family, friends, siblings, and coworkers. Family, in this case, the husband or parents, is considered the party most capable of influencing mothers to maximize exclusive breastfeeding. Support from others or those closest to them plays a crucial role in the success or failure of breastfeeding.(Pertami, 2024).

3. The relationship between access to information and breastfeeding compliance

The variable of access to information has a significant relationship with maternal compliance in following the WHO breastfeeding guidelines. Access to information has also been shown to play an important role (17). This study shows that mothers who receive information from health workers or trusted media have a higher level of compliance with breastfeeding guidelines. This is in line with a study by Victora et al. (2021), which stated that breastfeeding education by health workers increases maternal awareness and understanding of the importance of exclusive breastfeeding (18). Breastfeeding is given as soon as possible after the baby is born. In line with other studies, breastfeeding education for postpartum mothers uses leaflets containing attractive pictures, is carried out every time before the mother breastfeeds and is always practiced directly with the assistance of a staff member, making it easier for mothers to remember. Direct practice accompanied by a staff member makes mothers quickly able to breastfeed correctly. Conclusion: There is an effect of breastfeeding education on knowledge and appropriate breastfeeding behavior in postpartum mothers.(Probawati et al., 2024).

4. The relationship between maternal health conditions and breastfeeding compliance

The results of the study on the variable of access to information showed a significant relationship with maternal compliance in following the WHO breastfeeding guidelines.

Maternal health is the final factor that significantly contributes to breastfeeding compliance (19). Mothers who experience health problems such as mastitis or low milk production tend to have difficulty in meeting the WHO breastfeeding guidelines. Prevention efforts and early treatment of these health problems are important to ensure successful breastfeeding, as suggested by Binns et al (2022) (20). Literature studies report that mothers who breastfeed have a better quality of life than mothers who do not breastfeed.(Oktaviya et al., 2020)

Factors related to stopping breastfeeding in infants other than maternal education and separation of the infant are the mother's medical or health conditions.(Chang et al., 2019).

CONCLUSION

This study shows that education level, family support, access to information, and maternal health are factors that influence maternal compliance with breastfeeding practices according to WHO guidelines. To improve breastfeeding compliance, collaborative efforts are needed between health workers, families, and the community to provide comprehensive breastfeeding education, adequate support, and optimal health services for breastfeeding mothers.

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