



Original Research

## The Relationship Between Mother's Knowledge And Exclusive Breastfeeding Behavior

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### Abstract

*Exclusive breastfeeding provides important health benefits for infants, such as strengthening the immune system and reducing the risk of disease. However, the practice of exclusive breastfeeding is still not optimal, and one of the influencing factors is maternal knowledge. This study aimed to examine the relationship between maternal knowledge and attitudes toward exclusive breastfeeding. A quantitative cross-sectional design was used, involving 30 mothers with infants aged 0–6 months selected through stratified random sampling. Data were collected using questionnaires to assess mothers' knowledge and attitudes and analyzed using the Contingency Coefficient test with SPSS. The results showed that most mothers had sufficient (50%) to good (43.3%) knowledge, and 63.3% demonstrated positive attitudes toward exclusive breastfeeding. Statistical analysis indicated a significant relationship between knowledge and attitude ( $p = 0.028$ ;  $r = 0.438$ ), meaning higher knowledge was associated with more positive attitudes. These findings support the Health Belief Model and Planned Behavior Theory. Therefore, improving education and counseling on exclusive breastfeeding is necessary, especially for primigravida mothers and those with lower educational backgrounds.*

### 1. Introduction

Exclusive breastfeeding is one of the most effective health interventions for improving infant survival, growth, and development. Breast milk not only provides optimal nutrition according to infant needs, but also contains antibodies, immunological factors, and bioactive substances that play a vital role in boosting the immune system and reducing the risk of infectious and chronic diseases in infants (Victora et al., 2016; WHO, 2020). Therefore, the World Health Organization (WHO) recommends exclusive breastfeeding for the first six months of life without any additional food or drink, followed by continued breastfeeding until two years of age or beyond with adequate complementary foods (WHO, 2020).

Although the benefits of exclusive breastfeeding have been scientifically proven, the coverage of exclusive breastfeeding in various countries remains relatively low. WHO data shows that in 2016 the average coverage of exclusive breastfeeding globally only reached around 38% (WHO, 2017). In Indonesia, although around 96% of women have breastfed, only around 42% of infants under six months of age are exclusively breastfed, and this figure decreases to 55% as children approach two years of age (Kemenkes RI, 2017). Data from the 2018 Basic Health Research (Riskesdas) also shows that the coverage of exclusive breastfeeding in Indonesia is still around 37%, far from national and global targets (Kementrian Kesehatan RI, 2018).

Low exclusive breastfeeding coverage is influenced by various factors, both individual and environmental. One key factor that has been widely studied is maternal knowledge about breast milk and its benefits. Mothers who have good knowledge about the nutritional content, immunological benefits, and long-term impacts of breast milk tend to have more positive attitudes and a stronger

commitment to exclusive breastfeeding (Hastuti et al., 2019; Sari et al., 2020). This is in line with the Health Belief Model and the Theory of Planned Behavior, which state that an individual's knowledge and perception of health benefits will influence health attitudes and behaviors (Glanz et al., 2015).

However, increased maternal knowledge does not necessarily translate into increased exclusive breastfeeding. Various studies have shown that maternal attitudes are also influenced by other factors such as family support, social norms, employment conditions, access to information, and the availability of health services. Research in Bali showed that mothers living in areas with good access to information and health services were more likely to successfully breastfeed exclusively than mothers in remote areas (Widiastuti & Supriyadi, 2021). Furthermore, support from husbands and families has been shown to play a significant role in shaping mothers' self-confidence and positive attitudes toward exclusive breastfeeding (Dewi et al., 2020).

Improving maternal knowledge and attitudes through health education is a crucial strategy. Continuous education and counseling programs provided to pregnant and breastfeeding mothers have been shown to be effective in increasing understanding and positive attitudes toward exclusive breastfeeding. Research in Surabaya shows that structured and routine health education interventions can significantly increase exclusive breastfeeding coverage (Pratiwi, 2022). Therefore, a comprehensive understanding of the relationship between maternal knowledge and attitudes toward exclusive breastfeeding is essential for planning public health interventions and policies.

Unlike previous studies, which were generally conducted among maternal populations within large urban areas and with relatively homogeneous socioeconomic characteristics, this study specifically focused on mothers with infants aged 0–6 months with diverse educational backgrounds and employment statuses within the context of local midwifery services. Furthermore, this study highlights the relationship between maternal knowledge and attitudes toward exclusive breastfeeding in daily midwifery practice, particularly among primigravida and working mothers who often face obstacles in implementing exclusive breastfeeding. Therefore, this study provides novel, locally context-based empirical evidence that can serve as a basis for strengthening more contextual and applicable midwifery education interventions at the maternal and child health service level. Based on this background, this study aims to analyze the relationship between maternal knowledge and attitudes toward exclusive breastfeeding. This is expected to contribute to the development of strategies for promoting and protecting exclusive breastfeeding in the community.

## **2. Research Method**

This study used a quantitative research design with a cross-sectional approach. This approach was chosen because it allowed researchers to collect data from a broader population in a relatively short time. In this study, researchers will explore the relationship between mothers' knowledge about exclusive breastfeeding and their attitudes toward exclusive breastfeeding. This design also allows researchers to conduct statistical analyses that can demonstrate significant relationships between the variables studied.

The population in this study were mothers of infants aged 0-6 months. The sample size for this study was 30 individuals. The sampling technique used in this study was stratified random sampling, based on maternal gravidity status, namely primigravida and multigravida. This stratification was carried out to ensure the representation of maternal characteristics based on pregnancy experience, considering that gravidity status can influence the level of knowledge and attitudes towards exclusive breastfeeding. After the population was divided into two strata, sample selection in each stratum was carried out randomly proportionally according to the number of mothers who met the inclusion criteria in each group.

The research instrument used was a structured questionnaire consisting of two main sections: a knowledge questionnaire and a questionnaire on mothers' attitudes toward exclusive breastfeeding.

The knowledge questionnaire consisted of 10 questions with true and false answer choices. These questions covered the definition of exclusive breastfeeding, its benefits, the duration of exclusive breastfeeding, and correct breastfeeding practices. Scoring was performed by assigning 1 to correct answers and 0 to incorrect answers, resulting in a total score ranging from 0 to 10. Knowledge scores were then categorized as poor ( $\leq 60\%$ ), adequate (61–80%), and good ( $>80\%$ ).

The attitude questionnaire consisted of 10 items structured on a Likert scale with four response options: strongly disagree (score 1), disagree (score 2), agree (score 3), and strongly agree (score 4). The attitude statements reflected mothers' beliefs, acceptance, and readiness for exclusive

breastfeeding. The total attitude score was then categorized into positive and negative attitudes based on the median value.

Before being used in the study, the questionnaire underwent validity and reliability testing. Validity testing was conducted using the Pearson Product Moment correlation test, and all items were declared valid with a calculated  $r$  value  $> r$  table. Reliability testing was conducted using the Cronbach's Alpha test, with an alpha value of  $>0.70$ , indicating that the research instrument was reliable and suitable for use. Data obtained from the questionnaire will be analyzed using statistical software, such as SPSS. The analysis carried out includes descriptive analysis to describe the characteristics of respondents and the variables studied, as well as inferential analysis to test the relationship between mothers' knowledge and attitudes towards exclusive breastfeeding. The statistical test that will be used is the Coefficient contingency test.

### 3. Results and Discussion

Of the 30 respondents, 43.3% were primigravidas (first pregnancy), while 56.7% were multigravidas (more than one pregnancy). The majority of respondents had a high school education (56.7%), followed by college (30%), elementary school (10%), and junior high school (3.3%). No respondents had no education. The data collected showed that 46.7% of mothers were unemployed, and 53.3% were employed.

The results showed that most mothers had sufficient (50%) and good (43.3%) knowledge about exclusive breastfeeding, while 6.7% had insufficient knowledge. 63.3% of mothers agreed with exclusive breastfeeding, while 36.7% disagreed.

**Table 1. Univariate Analysis**

Variable		n	Frequency (%)
Gravida	Primigravida	13	43.3
	Multigravida	17	56.7
Education	Uneducated	0	0
	Elementary school	3	10
	Junior High School	1	3.3
	Senior High School	17	56.7
	College	9	30
Employment	Unemployed	14	46.7
	Employed	16	53.3
Knowledge	Poor	2	6.7
	Fair	15	50.0
	Good	13	43.3
Attitude	Disagree	11	36.7
	Agree	19	63.3
<b>Total</b>		<b>30</b>	<b>100</b>

**Table 2. Bivariate Analysis**

Var 1	N	P value	r	Var 2
Knowledge	22	0.028*	0.438	Attitude

*Coefficient contingency*

*\*significant*

The results of the analysis using the Contingency Coefficient test show that there is a significant relationship between knowledge and the attitudes of respondents. This is indicated by a p-value of 0.028, which is smaller than the statistical significance threshold ( $\alpha = 0.05$ ).

The correlation coefficient value of  $r = 0.438$  shows that the relationship between knowledge and attitude is in the moderate category with a positive direction. This means that the better the

respondents' level of knowledge, the more positive their attitude towards the topic being studied. Thus, it can be concluded that knowledge plays an important role in shaping attitudes, so that increasing knowledge through education or information intervention has the potential to increase respondents' positive attitudes.

### Discussion

This study aims to analyze the relationship between the level of knowledge and the attitudes of respondents towards the health topics studied. The results of the analysis show that there is a significant relationship between knowledge and attitude, with a p-value of 0.028 and a correlation coefficient ( $r$ ) of 0.438. These findings indicate that knowledge is positively related to attitude, with a moderate strength of relationship. This means that the better the respondents' knowledge, the more positive their attitude.

The significant relationship between knowledge and attitude is an important finding in the context of health promotion and education. Knowledge serves as a cognitive foundation that influences how individuals interpret health information, assess risks, and form emotional responses and attitudes toward certain behaviors. In this study, the majority of respondents had adequate to good levels of knowledge, which was consistent with the positive attitudes shown by most respondents. This reinforces the assumption that increasing an individual's cognitive capacity can encourage the formation of more supportive attitudes towards health behaviors.

These findings are consistent with previous studies showing that knowledge plays a significant role in shaping health attitudes. A study by Nguyen et al. (2020) showed that mothers with better knowledge of maternal health tended to have more positive attitudes towards recommended health practices. Another study by Asefa and Geleto (2019) also reported that increased knowledge was significantly associated with more supportive attitudes toward preventive health services.

Theoretically, these research results can be explained through the Health Belief Model (HBM), which states that knowledge influences individuals' perceptions of vulnerability, severity, benefits, and barriers to a health action. Individuals with good knowledge will be better able to understand the benefits of a behavior and the risks if the behavior is not carried out, thus forming a more positive attitude (Rosenstock et al., 2016). In addition, the Theory of Planned Behavior (TPB) also explains that attitudes are the result of information-based beliefs held by individuals, so that knowledge is an important factor in building health intentions and behaviors (Ajzen, 2020).

The correlation coefficient value, which is in the moderate category, indicates that although knowledge is related to attitude, it is not the only factor that influences respondents' attitudes. Attitudes can also be influenced by other factors such as personal experience, social norms, family support, culture, and beliefs that have developed in society. This explains why not all respondents with good knowledge automatically show very positive attitudes. This finding is in line with research by Glanz et al. (2018), which emphasizes that attitude formation is a multidimensional process.

In the context of midwifery practice, this significant finding has important clinical implications. Midwives, as frontline health workers, have a strategic role in increasing mothers' knowledge through structured, communicative, and contextual education. The education provided should not only focus on conveying information but also pay attention to the method of delivery, the use of easy-to-understand language, and the emotional involvement of mothers so that health messages can be well received and internalized.

In addition, a women-centered care approach is highly relevant in interpreting the results of this study. This approach emphasizes the importance of respecting the experiences, values, and individual needs of women in every care process. By understanding the mothers' level of knowledge, midwives can tailor more personalized and empathetic education methods, thereby not only increasing knowledge but also encouraging more positive attitude changes (WHO, 2021).

Significant findings in this study also indicate that knowledge-enhancing interventions have the potential to be effective strategies for shaping positive attitudes. However, given the moderate relationship, these interventions need to be combined with other strategies such as counseling, social support, and family empowerment so that attitude change can be more optimal and sustainable. Research by Kumbani et al. (2017) shows that education accompanied by social support has a stronger impact on health attitudes and behaviors than education alone.

The findings in this study have novel value because they were obtained from the context of midwifery practice with respondents who were predominantly mothers with secondary education and working status, which empirically shows that increased knowledge not only impacts cognitive

aspects, but also forms a more positive attitude towards exclusive breastfeeding. This strengthens the evidence that midwifery education interventions need to be tailored to maternal characteristics, especially in the group of primigravida and working mothers, who are often vulnerable groups in the success of exclusive breastfeeding. Different from previous studies that emphasize general knowledge factors, this study highlights practical implications for midwives in designing education based on maternal needs in primary health care.

Overall, the results of this study confirm that knowledge is an important factor in shaping attitudes, but it needs to be understood within a broader and more holistic framework. A comprehensive, humanistic, and needs-based educational approach is key to improving the quality of midwifery care.

#### 4. Conclusion

This study demonstrates a significant relationship between maternal knowledge and attitudes toward exclusive breastfeeding, with increased knowledge contributing to more positive attitudes toward breastfeeding practices. The novelty of this study lies in the local context and characteristics of the respondents, particularly primigravida and working mothers, which reflect the real-world conditions of midwifery practice.

These findings emphasize the important role of midwifery personnel in improving maternal knowledge through targeted, structured, and ongoing exclusive breastfeeding education. Midwives in maternal and child health services are expected to integrate exclusive breastfeeding education at every antenatal and postnatal visit, with an approach tailored to the mother's social, educational, and employment status. An operational educational approach through individual counseling, the use of simple educational media, and family involvement is expected to strengthen positive maternal attitudes and support the success of exclusive breastfeeding programs at the midwifery service and community levels.

**Acknowledgement.** Data shows that most mothers have adequate knowledge and positive attitudes toward exclusive breastfeeding. Factors such as education level, pregnancy experience, and occupation also influence mothers' knowledge and attitudes toward exclusive breastfeeding. Therefore, education about exclusive breastfeeding still needs to be improved, especially for mothers with low education levels and primigravida mothers, to further increase the success rate of exclusive breastfeeding.

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