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## MATERNAL KNOWLEDGE AND ATTITUDE REGARDING EXCLUSIVE BREASTFEEDING FOR BABIES AGED 0-12 MONTHS AT VEMASSE COMMUNITY HEALTH CENTER

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### ABSTRACT

The research aimed to explore the correlation between the understanding and mindset of mothers regarding exclusive breastfeeding. It focused on the Vemasse Community Health Center in Baucau Municipality and involved 60 participants. Quantitative analysis techniques, such as univariate and bivariate analysis supported by SPSS version 23.0 for Windows, were utilized in the study. The findings from the univariate analysis revealed that among all the participants, 35 mothers (58.3%) possessed inadequate knowledge about exclusive breastfeeding, while 25 mothers (41.7%) exhibited sufficient knowledge. In terms of maternal attitude, 33 mothers (55.0%) displayed a negative perspective towards exclusive breastfeeding, while 27 mothers (45.0%) held a positive attitude. Moreover, out of the total respondents, 26 mothers (43.3%) practiced exclusive breastfeeding, while 34 mothers (56.7%) did not adhere to exclusive breastfeeding. Through bivariate analysis employing crosstabs and SPSS version 23.0, the 2-tailed Fisher's Exact Test yielded a significance value of 0.002, which is below 0.05. This result indicates a favorable association between maternal knowledge and the practice of exclusive breastfeeding. Additionally, the Chi-Square test examining the relationship between maternal attitude and exclusive breastfeeding resulted in a significance value of 0.000, also below 0.05. Consequently, it implies that healthcare professionals should actively engage in promoting and advising

## INTRODUCTION

Breast milk is an essential nutrition for infants as it contains vital components such as white blood cells, immunoglobulins, hormones, specific proteins, and other necessary nutrients for the continuous growth of the baby. The quality and quantity of nutrition provided through exclusive maternal breastfeeding are crucial for the well-being of the baby. Exclusive maternal breastfeeding refers to the practice of feeding infants only breast milk from 0 to 6 months without any other liquids, solids, or foods, including formula milk, water, juice, porridge, biscuits, and pacifiers.

The first two years of a child's life are critically important because optimal nutrition during this period reduces morbidity and mortality, lowers the risk of chronic diseases, and promotes overall healthy development. Therefore, providing optimal breastfeeding to infants aged 0 to 23 months is crucial as it can save the lives of approximately 820,000 children under the age of five every year (WHO, 2020).

The World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) have a global strategy to provide nutrition for infants and young children, emphasizing the importance of preventing infant deaths by ensuring exclusive breastfeeding for the first six months of life and introducing safe and nutritious complementary foods at six months while continuing breastfeeding until the age of two or beyond (WHO, 2020). However, globally, the average rate of exclusive maternal breastfeeding in 2017 was only 38%, falling short of WHO's target of increasing it to at least 50% by 2025. According to UNICEF (2017), one of the reasons for the insufficient coverage of exclusive breastfeeding is a lack of knowledge about lactation management. In 2020, although there has been an increase, the proportion of infants aged 6 months receiving exclusive breastfeeding globally is still around 44% according to WHO. This low rate of exclusive breastfeeding has significant implications for the quality and overall well-being of children.

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The success of exclusive breastfeeding is not solely determined by maternal employment but can also be influenced by various factors, including family support and other contextual factors. Maternal knowledge and attitude toward providing exclusive breastfeeding to infants can greatly impact the success of exclusive breastfeeding. This phenomenon requires continuous research to understand the relationship between these variables. These data serve as the basis for researchers to conduct further studies on the relationship between maternal knowledge, attitude, and the practice of exclusive breastfeeding for infants aged 0-12 in the Vemassee Community Health Center.

## **LITERATURE REVIEW**

### **Knowledge**

According to Notoatmodjo (2018), knowledge is the result of "knowing" and occurs when there is sensitivity toward certain objects. Sensitivity to objects happens through the five senses of human beings, such as seeing, hearing, smelling, tasting, and touching directly. When sensitivity aims to acquire knowledge, it is influenced by the intensity of attention and perception toward the object. Much of our knowledge is obtained through our eyes and ears.

Each type of knowledge has its specific characteristics related to what (ontology), how (epistemology), and what to do (axiology). The knowledge possessed by individuals has a significant influence on their behavior. Good behavior stems from good knowledge (Handhika, 2017). Knowledge is the result of our desire to know something, achieved through various methods and tools. It has different types and characteristics, including direct and indirect, inconsistent and consistent, subjective and specific, and objective and general. The type and characteristics of knowledge depend on its sources, methods, and tools, including both accurate and incorrect knowledge (Suhartono, 2007; Suwanti & Aprilin, 2017).

According to Notoatmodjo in Yuliana (2017), knowledge is the result of human detection or perception of objects through their senses, such as sight, hearing, smelling, and others. Knowledge is a mental activity process that develops through learning processes and resides in memory, which can be retrieved when needed through thought processes. Knowledge is acquired from various sources and experiences (Sarwono, 1993 in Nurrahman, 2018).

According to Daryanto in Yuliana (2017), human knowledge about an object has different intensities and levels of knowledge, including (1) Know, which means thinking about the material that has been studied. This level of knowledge includes the ability to recall specific information and recall the material studied or received stimulation from it. (2) Comprehension, which means the ability to explain and interpret the obtained object accurately. (3) Application, which means the ability to use the learned material in real situations or conditions. (4) Analysis, which refers to the ability to break down or declare the components of a material or object and understand their structure and relationships. (5) Synthesis, which means the ability to combine or create relationships between various parts to form something new. (6) Evaluation, which involves the ability to justify or assign value to a material or object based on self-defined criteria or existing criteria. According to Bahm (Lake et al., 2017), the theory of knowledge consists of six components: Problem, Attitude, Method, Activity, Conclusion, and Effect.

### **Attitude**

Attitude is a form of evaluation or emotional response. People's attitudes toward objects can be supportive or favorable, as well as unsupportive or unfavorable towards a particular object (Sugiyono, 2016). Attitude is a response to conditioned stimuli (Sugiyono, 2016). Attitude is defined as a tendency towards behavior, which also serves as an evaluative response, meaning a response that has a cause. Attitude is not an action itself, but a predisposition to act (Nurrahman, 2018). Attitude is a person's tendency and confidence towards something, either positive or negative, based on affective and cognitive aspects, as well as other attitudinal patterns (Sugiyono, 2016). Attitude is a reactive response to conditioned social stimuli. Attitude is a combination of sentiment, confidence, and relatively stable behavioral tendencies (Mahmuda, 2016).

### **Breast milk**

Provide breast milk exclusively to the baby without feeding or consuming anything else, starting from the baby's birth until around 6 months. Breast milk not only provides an opportunity for the baby's physical health but also contributes to their intellectual and emotional well-being, positive spiritual development, and good social development (Harseni, 2017). A mother's breast milk is the best gift she can give to her baby, as it is secreted by the mother's mammary glands and contains natural and easily digestible nutrients and energy. Breast milk contains the adequate and perfect composition of nutrients for the baby's growth, accessible at any time, and at a temperature free from

contamination (Siregar, 2017). Breast milk is like a perfect food for the baby because it contains important substances and antibodies necessary for their growth and development. Babies who receive breast milk from 0 to 6 months have been proven to have higher intelligence and are less prone to diseases (Pitaloka, 2018).

According to Toto and Aristasari (2018), breast milk contains five essential nutrients necessary for the baby's growth and development: (1) Fat, which is the primary source of calories in breast milk. The fat content in breast milk ranges from 3.5% to 4.5%. Breast milk has a lower cholesterol level compared to other types of milk, allowing the baby to consume breast milk with lower cholesterol that aids in their proper development. Babies who do not receive breast milk are more susceptible to illnesses in the future. (2) Carbohydrates, the main nutrition found in breast milk is lactose (milk sugar). Lactose has benefits such as promoting the growth of good bacteria in the intestines (*Lactobacillus bifidus*). When lactose is digested, it turns into glucose and galactose. (3) Protein, which protects the baby from infections and prevents the development of harmful bacteria. Breast milk contains two types of proteins: whey and casein. Whey is a smooth, soft, and easily digestible protein. (4) Minerals and Salt, breast milk contains minerals and salts that are beneficial for babies from 0 to 6 months old. Minerals in breast milk, such as calcium, play an important role in the baby's growth and development, strengthening bones, muscles, and nerves, and aiding in nutrient absorption. (5) Vitamins, breast milk contains various vitamins. Vitamin E enhances the baby's immune system, while vitamin A increases immunity and promotes the baby's growth. Breast milk also contains vitamins B, C, and folic acid, which help in brain development and the baby's immune system.

Exclusive breastfeeding means providing breast milk to the baby without any additional food or drink, starting from birth until 6 months old. Other additional food or drinks such as formula milk, honey, tea, and solid foods like rice, noodles, biscuits, sweets, cookies, and ice cream should not be given to the baby (Lestari et al., 2019).

Exclusive breastfeeding means providing breast milk exclusively to the baby without introducing any additional food or drink from the first day of life until 6 months old, except for vitamin drops. After exclusively breastfeeding, breastfeeding should continue until the baby reaches two years of age or beyond. Exclusive breastfeeding has many benefits, such as improving the mother's condition during pregnancy and reducing the risk of breast cancer (Wilda et al., 2018). To support and motivate mothers to

exclusively breastfeed, it is crucial to have good knowledge and involvement from family members and healthcare professionals (Novilia, Girsang, and Sari, 2017). Exclusive breastfeeding for newborns can reduce infant mortality rates and boost the baby's immune system. Exclusive breastfeeding also has a significant impact on the child.

## **METHOD**

The research was conducted at the Vemassee Community Health Center, Vemassee administrative post, Baucau municipality. The population in this research consisted of mothers with babies aged 0 to 12 months who were attending the Vemassee Community Health Center, Vemassee administrative post, Baucau municipality, totaling 149. The sample in this research consisted of 60 respondents. The sampling technique used to determine the sample in this research was accidental sampling. The data collection techniques used were observation, questionnaire, and documentation. The data processing techniques used were as follows: (1) Editing, which is an effort to review and retrieve missing or collected data. Editing can be done during the data collection stage or after the data has been collected. (2) Coding, which involves assigning numerical codes to data that are categorized. This coding process is particularly important when using computers for data processing and analysis. (3) Scoring, which declares the levels of knowledge as understood = 3, somewhat understood = 2, and not understood = 1; and the levels of attitude as good = 3, neutral = 2, and bad = 1. (4) Tabulating, which involves preparing the data, particularly the quantitative analysis, using cross-tabulation tables (Margono, 2010). (5) Statistical tests, specifically the Chi-square test, were used to examine the relationship between the independent variables (knowledge and attitude) and the dependent variable (providing exclusive breastfeeding).

Data analysis was conducted using univariate and bivariate analysis techniques. In the univariate analysis section, descriptive analysis was used to describe the variables of knowledge, attitude, and providing exclusive breastfeeding by presenting them in tables. Bivariate analysis was conducted to understand the relationship between these two variables in terms of knowledge and attitude regarding providing exclusive breastfeeding. Univariate analysis was used to observe the frequency distribution of respondents and to describe the variables of knowledge and attitude regarding providing exclusive breastfeeding, which were

presented in tables. Bivariate analysis was conducted to understand the relationship between these two variables, knowledge, and attitude, concerning the variable of providing exclusive breastfeeding by using the Chi-square statistical test."

## RESULT AND DISCUSSIONS

### Univariate Analysis

Univariate analysis is a frequency analysis conducted to calculate the results of respondents' perceptions regarding the variables of knowledge, attitude, and exclusive breastfeeding for infants aged 0 to 12 months at the Vemassee Community Health Center. The results of the univariate analysis are as follows:

#### *Maternal knowledge*

Regarding the questionnaire responses from mothers regarding knowledge of exclusive breastfeeding for infants aged 0 to 12 months at the Vemassee Community Health Center, the results are as follows:

#### **Knowledge (X1)**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Don't know				
Know	35	58,3	58,3	58,3
Total	25	41,7	41,7	100,0
	60	100,0	100,0	

**Table 1. Frequency of Maternal Knowledge**

From the table above, it shows that out of the total respondents, 35 (58.3%) mothers do not know about exclusive breastfeeding, while 25 (41.7%) mothers know.

#### *Maternal Attitude*

Regarding the questionnaire responses from mothers regarding their attitude towards exclusive breastfeeding for infants aged 0-12 months at the Vemassee Community Health Center, the results are as follows:

#### **Attitude (X2)**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid				
Bad	33	55,0	55,0	55,0
good	27	45,0	45,0	100,0
Total	60	100,0	100,0	

**Table 2. Frequency of Maternal Attitude**

The table above shows that mothers with a poor attitude towards exclusive breastfeeding account for a total of 33 people (55.0%), while those with a good attitude account for a total of 27 people (45.0%).

### Exclusive Breastfeeding

*Relasiona ho prensimentu kestionariu husi inan sira ne'ebé fó susu been eksklusivu ba bebé ho idade fulan 0 – 12 iha Sentru Saúde Komunitaria Vemasse mak hanesan tuir mai ne'e:* Exclusive breastfeeding is related to the perception of questionnaires from mothers who exclusively breastfeed infants aged 0-12 months at the Vemasse Community Health Center as follows:

### Susu been Eksklusivu ( Y )

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid				
No	34	56,7	56,7	56,7
yes	26	43,3	43,3	100,0
Total	60	100,0	100,0	

**Tabel 3. Frekuensi kona-ba Fó Susu been Eksklusivu**

From the table above, it shows that out of a total of 26 mothers (43.3%), exclusively breastfed their babies, while 34 mothers (56.7%) did not exclusively breastfeed their babies adequately.

### Analiza Bivariate

The results of the bivariate analysis are based on cross-tabulations using SPSS version 22.0 to understand the relationship between the variables of knowledge and attitude towards exclusive breastfeeding as follows:

Relationship between Knowledge and Exclusive Breastfeeding"



## Crosstab

		Susubeen Esklusivu ( Y )		Total
		Lae	Sim	
Konesimentu (X1)	Don't know	26	9	35
	know	8	17	25
Total		34	26	60

**Tabel 4. Crosstab On Knowledge Of Exclusive Breastfeeding**

The table above shows that mothers who have no education make up a total of 9, while mothers who have some education but do not exclusively breastfeed make up a total of 26. Furthermore, mothers who have the knowledge and exclusively breastfeed amount to 17 people, and those who have knowledge but do not exclusively breastfeed amount to 8 people. To understand the relationship between the variables of knowledge and exclusive breastfeeding, it can be summarized as follows:

## Chi-Square Tests

	Value	df	Asymptotic Significance (2- sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	10,619 <sup>a</sup>	1	,001		
Continuity Correction <sup>b</sup>	8,967	1	,003		
Likelihood Ratio	10,861	1	,001		
Fisher's Exact Test				,002	,001
Linear-by-Linear Association	10,442	1	,001		
N of Valid Cases	60				

a. 0 cells (0,0%) have an expected count of less than 5. The minimum expected count is 10,83.

b. Computed only for a 2x2 table

**Tabel 5. Result of Chi-Square**

From the Chi-Square statistical test regarding the relationship between maternal knowledge and exclusive breastfeeding among mothers with infants aged 0-12 months, the statistical results indicate a significance value of 0.002, which is less than the significance level of 0.05, as determined by Fisher's Exact Test. Therefore, there is a positive relationship between maternal knowledge and the provision of exclusive breastfeeding to

their babies. This implies that mothers who have inadequate knowledge (lack of understanding) are less likely to provide exclusive breastfeeding to their babies.

#### Relationship Between Attitude and Exclusive Breastfeeding

To understand the relationship between attitude and the provision of exclusive breastfeeding to babies, it can be examined using a crosstab statistical test, as shown below:

#### Crosstab

		Susu been Esklusivu (Y)		Total
		Lae	Sim	
Attitude (X2)	Bad	29	4	33
	Good	5	22	27
Total		34	26	60

**Tabel 6. Crosstabulation Regarding Attitude Towards Exclusive Breastfeeding**

Mothers who have a negative attitude towards providing exclusive breastfeeding amount to a total of 29. Furthermore, mothers who have a positive attitude towards providing exclusive breastfeeding amount to 22 people, while those who have a positive attitude but do not provide exclusive breastfeeding amount to five individuals. To understand the relationship between the variables of attitude and exclusive breastfeeding, it can be summarized as follows:

#### Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1- sided)
Pearson Chi-Square	29,094 <sup>a</sup>	1	,000		
Continuity Correction <sup>b</sup>	26,338	1	,000		
Likelihood Ratio	31,857	1	,000		
Fisher's Exact Test				,000	,000
Linear-by-Linear Association	28,609	1	,000		
N of Valid Cases	60				

- a. 0 cells (0,0%) have an expected count of less than 5. The minimum expected count is 11,70.
- b. Computed only for a 2x2 table

### **Table 7. Result of Chi-Square**

The statistical results indicate a significance value of 0.000, which is less than the significance level of 0.05, as determined by Fisher's Exact Test. Therefore, there is a positive relationship between maternal attitude and the provision of exclusive breastfeeding to their babies. This implies that mothers who have a negative attitude are less likely to provide exclusive breastfeeding to their babies, while those with a positive attitude are more likely to do so.

### **Discussions**

Mothers who have adequate knowledge about exclusive breastfeeding account for 25 individuals, representing 42% of the total. Knowledge is defined as a mental activity process developed through learning and stored in memory, which is retrieved when needed through thought processes. Knowledge is acquired from various sources and experiences (Sarwono, 1993 in Nurrahman, 2018). This research shows that adequate knowledge can positively influence maternal attitudes toward providing exclusive breastfeeding to their babies. Conversely, inadequate knowledge can lead to negative attitudes and a decreased likelihood of providing exclusive breastfeeding.

Furthermore, mothers who have a positive attitude toward providing exclusive breastfeeding amount to 27 individuals, representing 45%. Attitude is defined as a tendency towards behavior and an evaluative response, meaning it reflects the individual's consideration of the cause (Soemamo, 1994 in Nurrahman, 2018). This research indicates that a positive attitude towards exclusive breastfeeding can significantly impact the promotion of exclusive breastfeeding and improve the nutrition of babies in the Vemassee Health Center, Vemassee Administrative Post. Healthcare professionals need to work collaboratively with all sectors, including families, local authorities, and Primary Health Care (PHC) to maintain positive attitudes among breastfeeding mothers and provide successful support for exclusive breastfeeding.

Moreover, mothers who exclusively breastfeed their babies from birth until six

months, without introducing other foods or formula, account for 26 individuals, representing 43.3%. Exclusive breastfeeding means providing only breast milk to the baby, whether in liquid or solid form, without introducing substances like formula, water, tea, biscuits, or pacifiers. This research demonstrates that the majority of mothers in the Vemassee Administrative Post follow exclusive breastfeeding practices, which can positively impact the nutrition and overall well-being of their babies. Exclusive breastfeeding not only depends on quantity but also the quality of breast milk provided. Deciding to exclusively breastfeed requires adequate physical and psychological preparation. Therefore, healthcare professionals need to support mothers throughout pregnancy, and childbirth, and provide counseling on exclusive breastfeeding.

In terms of the relationship between maternal knowledge and exclusive breastfeeding, the study revealed that out of 60 respondents, 17 (68%) had adequate knowledge and provided exclusive breastfeeding, while 8 (32%) had adequate knowledge but did not provide exclusive breastfeeding. On the other hand, 9 (26%) had inadequate knowledge but still provided exclusive breastfeeding, while 26 (74.3%) had inadequate knowledge and did not provide exclusive breastfeeding. The Chi-Square statistical test for the relationship between maternal knowledge and the provision of exclusive breastfeeding to babies aged 0 to 12 months yielded a significant value of 0.001, indicating a relationship between maternal knowledge and exclusive breastfeeding in the Vemassee Health Center, Vemassee Administrative Post. Additionally, the analysis showed that mothers with inadequate knowledge are at a higher risk of not providing exclusive breastfeeding compared to those with adequate knowledge (6.139).

Regarding the relationship between maternal attitude and exclusive breastfeeding, the study revealed that 22 mothers (82%) had a positive attitude towards providing exclusive breastfeeding to their babies. The Chi-Square statistical test for the relationship between maternal attitude and exclusive breastfeeding for babies aged 0 to 12 months yielded a significant value/p-value of 0.00, indicating a relationship between maternal attitude and exclusive breastfeeding.

## CONCLUSIONS

Based on the research results and the discussion above, it can be concluded that

there is a significant relationship between maternal knowledge and attitude regarding the provision of exclusive breastfeeding to babies aged 0 to 12 months, as indicated by the crosstabs test using SPSS version 23.0 with a significant value of 0.002, which is smaller than 0.05, determined by Fisher's Exact Test. Therefore, there is a positive relationship between maternal knowledge and the practice of providing exclusive breastfeeding to babies. Furthermore, the Chi-Square statistical test for the relationship between maternal attitude and exclusive breastfeeding yielded a significant value of 0.000, which is smaller than 0.05, determined by Fisher's Exact Test.

## REFERÉNCES

- Bambang, (2017). *Super Baby Directory: Cetakan II*. Jogjakarta: Flashbook.
- Krisnatuti, D. & Yenrina, R. (2002). *Menyiapkan Makanan Pendamping ASI*. Jakarta: Puspa Swara.
- Muchtadi, D. (1996). *Gizi Untuk Bayi: ASI, Susu Formula dan Makanan Tambahan*. Jakarta: Sinar Harapan.
- Dinas Kesehatan Jawa Timur. (2018). *Profil Kesehatan Indonesia Tahun 2017*. Surabaya: Jawa Timur.
- Departemen Kesehatan RI. (2005). *Manajemen Laktasi*. Jakarta: Direktorat Gizi Masyarakat.
- Hastono, S. P. (2007). *Analisis data Kesehatan*. Depok: Fakultas Kesehatan Masyarakat Universitas Indonesia.
- Purwanti, H.S. (2004). *Konsep Penerapan ASI Eksklusif*. Jakarta: EGC
- Masturah, I & Anggita, T. N., (2018). *Metodologi Penelitian Kesehatan. Pusat Informasi Sumber Daya Manusia Kesehatan*
- Notoatmodjo, S. (2015). *Promosi Kesehatan Dan perilaku Kesehatan*. Jakarta: Rineka Cipta
- Nursalam. (2017). *Metodologi Ilmu Keperawatan Pendekatan Praktis Edisi 5*. Jakarta: Salemba Medika
- Susanti, R. (2002). *Hubungan Tingkat Pendidikan dan Pengetahuan tentang ASI dengan Pemberian Kolostrum dan ASI Eksklusif (Studi di Desa Tidu Kecamatan Bikareja)*. Skripsi. Semarang: FKM Undip.
- Lameshow, S. (1997). *Besar Sampel dalam Penelitian Kesehatan*. Yogyakarta: Gajah Mada University Press.
- Sugiyono. (2016). *Metodologi Penelitian Kuantitatif, Kualitatif Dan R&D*. Bandung: Alfabeta
- Sunaryo. (2004). *Psikologi untuk Keperawatan*. Jakarta: EGC
- Roesli, U. (2001). *Bayi Sehat Berkat ASI Eksklusif*. Jakarta: PT Elex Media Komputindo.