

Mother's Knowledge Level About Providing Mp-Asi With Nutritional Status To Babies Aged 6 – 24 Months In Banjarworo Village, Working Area Of Bangilan Puskesmas

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Abstract

Nutritional knowledge is knowledge related to food that affects a person's nutritional status. Nutritional status is still a major problem in Indonesia with cases of undernutrition and malnutrition in children being found. One of the factors that affect nutritional status is the provision of MP-ASI. This study aims to determine the relationship between mother's level of knowledge about complementary feeding with nutritional status in infants aged 6 – 24 months in Banjarworo Village. The research design used is analytical correlation with a cross-sectional approach. The residents of the study are all mothers with 6 – 24 month old babies in the flood Banjarworo village, which number 116 mothers with 90 samples obtained from simple randomly sample collecting techniques. The method of data collection is to distribute questionnaires and analyze using a test correlation spear. The results showed that almost half of mothers who had babies aged 6-24 months in Banjarworo Village had good knowledge of 35 mothers (38.9%) and almost half of infants in Banjarworo Village had poor nutritional status as many as 26 infants (28.9%). From the results of the Spearman Rank Correlation test, it was found that $p = 0.004$ with $p < 0.05$ indicating a positive relationship (0.299) between mother's knowledge about complementary feeding and nutritional status in infants aged 6-24 months in Banjarworo Village, Bangilan Health Center working area. Mother's knowledge about good complementary feeding can affect good nutritional status, if given correctly and appropriately. Not only that, mothers can also take part in counseling conducted by cadres to increase knowledge about the provision of MP-ASI with nutritional status in order to increase mother's knowledge about giving MP-ASI.

Key Words : *Knowledge, Administration, Nutrition Status*

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INTRODUCTION

Nutritional knowledge is knowledge related to food and nutrients. The behavior and attitude of mothers in choosing food to be consumed by babies are influenced by various factors, including the level of knowledge of a person about nutrition so that it can affect a person's nutritional status. Lack of maternal nutritional knowledge can be one of the determinants of infant nutritional status because it determines the behavior or attitude of mothers in choosing food to be consumed by infants and also eating patterns related to the amount, type and frequency that will affect food consumption in these toddlers (Puspasari and Andriani, 2017).

Nutritional status is still a major problem in Indonesia. This is evidenced by the still finding problems of malnutrition status and malnutrition in children in various regions. One factor that can affect nutritional status is intake. A person's nutritional status is a reflection of what is consumed, in children aged 4-24 months get adequacy from breast milk (ASI) and complementary foods (MP-ASI). Malnutrition will cause obstacles to development and growth which if not addressed early will continue into adulthood (Afrianto, et al. 2015) in (Halil, A, et al. 2017)

According to the World Health Organization (2018) in (Cintya, et al, 2020) stated that 36.4% of Indonesian infants are stunted, around 13.5% wasting and 11.5% with overweight. Based on the results of Basic Health Research (2018) in East Java, stated that the incidence of malnutrition reached 17.7% which consisted of malnutrition by 3.9% and undernutrition reached 13.8%, and this showed a decrease in the incidence rate in 2013 of malnutrition of around 13.9%. According to annual report data from the Tuban Regency Health Office in 2019, nutritional status, underweight was 5884 infants (8.40%), wasting 5374 infants (7.67%), and in 2020 underweight 5943 infants (9.63%), wasting 4991 infants (8.09%). While nutritional status data obtained from the annual report of the Bangilan Health Center in 2019 as many as 342 infants (11.17%) were underweight, as many as 355 infants (11.2%) experienced wasting and in 2020 as many as 227 babies (9.88%) were underweight, as many as 199 babies (8.66%) experienced wasting, it can be seen that there was a decrease (1.29%) in underweight and there was also a decrease in wasting as much as (2.55%) from 2019 to 2020. Although in 2020 there has been a decline, the figure is still high because it is still above the target set by the Puskesmas. The target nutritional status of underweight and wasting that has been determined by the Bangilan Health Center in 2020 is 1.8%.

Some studies state that nutritional cases in infants and toddlers are caused by improper breastfeeding and complementary food habits (in terms of quantity and quality) (Puspasari and Andriani, 2017). The state of malnutrition in infants and toddlers is caused by improper MPASI feeding patterns. Non-compliance with infant and toddler feeding and the existence of habits that harm health, directly and indirectly as the main trigger for malnutrition problems in children, especially children under 2 years old (Sari and Ratnawati, 2018).

Complementary foods (MP-ASI) are given when the baby no longer gets enough energy and nutrients from breast milk alone. From most babies, additional food is given from 6 months of age. Before the age of 4 months, babies will push food out of their mouths because they have not been able to regulate their tongue movements properly (Susanti Widiastuti, et al, 2020). Improper provision of complementary foods is closely related to internal factors from the baby's mother and external factors influenced by the environment. Internal factors include education, knowledge, occupation, behavior, actions, psychological as well as physical of the mother herself. External factors include cultural factors, the less than optimal role of health workers, and the role of family (Green, 1980) in (Santi and Yuly, 2020).

One of the efforts to overcome infant and toddler malnutrition requires knowledge from the family. This knowledge can be obtained from information contained in the mass media, leaflets or from health workers. Knowledge in providing complementary food and the ability to provide nutritious complementary food. The pattern of giving complementary food to infants and toddlers is strongly influenced by the behavior adopted and used by the family and socio-cultural influences that affect the pole of giving complementary food (Monica, 2012) in (Sari and Ratnawati, 2018).

To reduce and prevent the problem of malnutrition and undernutrition, the government has designed a program that involves socio-cultural aspects and aspects of community empowerment as a basis in developing local-based MPASI programs in accordance with the local area commonly referred to as MP-ASI dapur ibu (Sulistyaningsih, 2012) in (Puspasari and Andriani, 2017).

The general objective in this study was to determine the relationship between the level of maternal knowledge about breastfeeding with nutritional status in infants aged 6-24 months.

While the specific objectives are:

1. Identify the mother's level of knowledge about breastfeeding
2. Identifying Nutritional Status in Infants Aged 6-24 Months
3. Analyzing the Relationship of Maternal Knowledge about Breastfeeding with Nutritional Status in Infants Aged 6-24 Months

MATERIALS AND METHODS

The method in this study is *Correlation Analytical* research with a *cross-sectional* approach. This approach is a type of research where data collection of independent and dependent variables of research is carried out once at a time (Nursalam, 2020). While the population of this study was all mothers who had babies 6-24 months in the Bangilan Health Center Working Area totaling 116 people with samples taken as many as 90 mothers.

The technique used in this study is the Probability sampling technique. Probability sampling is that every subject in the population has a chance of being selected or not selected as a sample. Each part of the population may differ from one another but providing the population parameters, it has the opportunity to be a representative sample. In this research using a simple random sampling technique, to achieve this sampling, each element was randomly selected (Nursalam, 2020).

The variables studied include maternal knowledge about the pattern of giving complementary foods as an independent variable and nutritional status in infants 6-24 months as a dependent variable. This study used measuring instruments, namely observation through KMS and interviews using questionnaires. The results of data collection were analyzed using data processing techniques using the Spearman Rank test which aimed to determine the relationship between the level of maternal knowledge about breastfeeding and nutritional status in infants aged 6-24 months.

RESEARCH RESULTS

General Data

Table 4.1 Characteristics of Mothers Who Have Babies Aged 6 – 24 Months Based on the Age of Mothers in Banjarworo Village Bangilan Health Center Working Area May 2021

No	Age	Frequency (f)	Percentage (%)
1	17 – 25	20	22,2 %
2	26 – 34	50	55,6 %
3	35 – 43	20	22,2 %
Total		90	100 %

From table 4.1 above, it is known that of the 90 mothers who had babies aged 6-24 months in Banjarworo Village, the Bangilan Health Center work area, most were aged 26-34 years with a percentage (55.6%) and with a total of 50 mothers.

Table 4.2 Characteristics of Mothers Who Have Babies Aged 6 – 24 Months Based on Education in Banjarworo Village Bangilan Health Center Working Area May 2021

No	Education	Frequency (f)	Percentage (%)
1	SD/MI	9	10,0 %
2	SMP/MTS	23	25,6 %

3	SMA/MA/SMK	47	52,2 %
4	College	11	12,2 %
Total		90	100,0 %

From table 4.2 above, it is known that of the 90 mothers who had babies aged 6-24 months in Banjarworo Village, the Bangilan Health Center work area, most of them had high school education with a percentage (52.2%) and with a total of 47 mothers.

Table 4.3. Characteristics of Mothers Who Have Babies Aged 6 – 24 Months Based on Work in Banjarworo Village Bangilan Health Center Working Area May 2021

No	Work	Frequency (f)	Percentage (%)
1	Not Working	71	78,9%
2	Work	19	21,1%
Total		90	100,0%

Based on table 4.3 above, it is known that 90 mothers who have babies aged 6-24 months in Banjarworo Village, Bangilan Health Center work area, almost all of them do not work as many as 71 mothers with a percentage (78.9%).

Custom Data

Table 4.4 Mother's Level of Knowledge About Breastfeeding at the Age of 6 – 24 Months in Banjarworo Village Bangilan Health Center Working Area May 2021

No	Mother's Knowledge	Frequency	Percentage (%)
1	Good	35	38,9 %
2	Enough	46	51,1 %
3	Less	9	10,0 %
Total		90	100,0 %

From table 4.6 above, it is known that of 90 mothers who have babies aged 6-24 months in Banjarworo Village, Bangilan Health Center work area, almost half have knowledge about giving good MP-ASI, where the percentage itself reaches (38.9%) and with a total of 35 mothers (both from maternal knowledge about MP-ASI, giving MP-ASI, and types of MP-ASI for babies).

Table 4.5 Nutritional Status of Infants Aged 6 – 24 Months in Banjarworo Village Bangilan Health Center Working Area May 2021

No	BB/U	Frequency (f)	Percentage (%)
1	Poor Nutrition	26	28,9 %
2	Undernutrition	47	52,2 %
3	Normal Nutrition	17	18,9 %
4	More Nutrition	0	0,0 %
Total		90	100%

Based on table 4.7. Of the 90 infants with infant nutritional status aged 6-24 months in Banjarworo Village, Bangilan Health Center working area, almost half had malnutrition status where the percentage reached (28.9%) with a total of 26 babies.

Table 4.6 Analysis of the Relationship Between the Level of Maternal Knowledge About Breastfeeding and Nutritional Status in Infants Aged 6 – 24 Months in Banjarworo Village Bangilan Health Center Working Area in May 2021

Mother's Knowledge Level	Nutritional status						Σ	
	Poor Nutrition		Undernutriti on		Normal Nutrition		F	%
	F	%	F	%	F	%		
Good	15	16,7%	15	16,7 %	5	5,6 %	35	38,9 %
Enough	11	12,2%	28	31,1 %	7	7,8 %	46	51,1 %
Less	0	0,0 %	4	4,4 %	5	5,6 %	9	10,0 %
Sum	26	28,9 %	47	52,2 %	17	18,9 %	90	100 %

The results of the *Spearman Rank Correlation test* were obtained $p < 0.05$ with significant significance with a correlation coefficient of 0.299.

Based on table 4.6, it shows that a small part, namely 15 people (16.7%) of mothers' knowledge level about breastfeeding in Banjarworo Village with good knowledge have nutritional status of infants aged 6-24 months with malnutrition.

From the results of the *Spearman Rank Correlation test* between the level of maternal knowledge about breastfeeding and nutritional status in infants aged 6-24 months in Banjarworo Village, the Bangilan Health Center work area was found to be significant at 0.004, where 0.004 is less than 0.05, which means that there is a significant relationship between the level of maternal knowledge about breastfeeding and nutritional status in infants aged 6-24 months. This indicates that it is H_1 accepted and rejected. And obtained a correlation coefficient of 0.299 which means that the relationship between the level of maternal knowledge about breastfeeding and nutritional status in infants aged 6-24 months, has a low relationship strength. While the correlation coefficient number in the results above is positive, which is 0.299. So that the relationship between the level of maternal knowledge about breastfeeding and the nutritional status of infants aged 6-24 months is unidirectional. Thus, it can be interpreted that the level of knowledge of mothers about giving good MP-ASI does not necessarily affect the nutritional status of a good baby as well. H_0

Discussion

Based on table 4.4, it is known that of the 90 mothers who have babies aged 6-24 months in Banjarworo Village, the Bangilan Health Center work area mostly has good knowledge with a percentage (38.9%) and with a total of 35 mothers.

According to Notoadmodjo (2012) Knowledge is the result of "knowing" after sensing objects occurs through the five human senses, namely sight, hearing, smell, taste and touch by themselves (in the journal Wulandari, et al, 2020).

According to Mubarak (2001) if knowledge is influenced by several factors including the level of education, occupation, and age. The level of education affects the way of thinking and behavior, the higher the education the easier the person to absorb and receive information so that knowledge and understanding are broader. In addition to the level of education, the work environment can make a person gain experience and knowledge, either directly or indirectly. By having good knowledge, a person will give the right treatment in caring for their children, especially when giving MP-ASI (Wulandari, et al, 2020).

Proper breastfeeding is given at the age of 6 months because the reserves of nutrients and minerals in the baby's body obtained while in the womb begin to decline, so additional food is needed in addition to breast milk. This complementary food is needed for the development

and physical, psychomotor and cognitive growth of the little one who continues to grow. (Arif, 2009 in Wulandari, et al, 2020).

From the results of the facts and theories above, it can be seen that the level of knowledge of mothers about breastfeeding is one of the causes of the formation of nutritional status in infants in Banjarworo Village. Where according to the facts from the field itself, almost half have knowledge about giving good breastfeeding. Therefore, it is very important for mothers who have babies aged 6-24 months in Banjarworo Village to know knowledge about breastfeeding both from the understanding of breastfeeding, the frequency of food given, and the type of complementary food. Because the mother's knowledge will affect the mother's attitude in complementary feeding. Therefore, mothers who have babies aged 6-24 months must know well the knowledge about breastfeeding in order to reduce the incidence of babies with poor nutritional status. Not only knowing but mothers who have good knowledge must also be able to practice breastfeeding correctly and appropriately to babies

Based on table 4.5, it shows that of 90 infants aged 6-24 months in Banjarworo Village, the Bangilan Health Center work area, almost half have poor nutritional status with a percentage reaching (28.9%) with a total of 26 babies.

Nutritional status is a condition in the human body which is the result of food and the use of nutrients consumed by a person. Nutritional status can be divided into several indicators, including indicators of Body Weight according to Age (BB / U) and (BB / PB). BB / U can be divided into 4 categories, namely, malnutrition, undernutrition, good nutrition, and more nutrition. While BB / PB can also be divided into 4 categories, namely very thin, thin, normal, and fat (Puspasari and Andriani, 2017).

From the facts and theories above, it can be seen that the nutritional needs of babies are the top priority in fulfilling infant nutrition every day. Baby development is certainly highly valued by the intake of healthy and nutritious foods from various foods. Good nutritional status can be achieved if the body gets enough substances to be used properly so that physical development, brain, and work ability can develop optimally. Physical growth, brain development, work ability and general health are seen from the nutritional status of the baby. In Banjarworo Village, almost half of the Bangilan Health Center work areas have poor nutritional status. This shows that mothers are not right in providing balanced nutrition and complementary foods to infants.

Based on table 4.6, it shows that a small part, namely 15 people (16.7%) of mothers' knowledge level about breastfeeding in Banjarworo Village with good knowledge have nutritional status of infants aged 6-24 months with malnutrition.

From the results of the Spearman Rank Correlation test between the level of maternal knowledge about breastfeeding and nutritional status in infants aged 6-24 months in Banjarworo Village, the Bangilan Health Center work area was found to be significant at 0.004, where 0.004 was less than 0.05, so it means that there is a significant relationship between the level of maternal knowledge about breastfeeding and nutritional status in infants aged 6-24 months. This indicates that it is H_1 accepted and rejected. And obtained a correlation coefficient of 0.299, which means that the relationship between the level of maternal knowledge about breastfeeding and nutritional status in infants aged 6-24 months, has a low relationship strength. While the correlation coefficient number in the results above is positive, which is 0.299. So that the relationship between the level of maternal knowledge about breastfeeding and the nutritional status of infants aged 6-24 months is unidirectional. Thus, it can be interpreted that the mother's level of knowledge about giving adequate MP-ASI can affect the nutritional status of the baby. H_0

Knowledge is the result of "knowing" and occurs after people see an object. Understand objects through the five human senses: sight, hearing, smell, taste and touch. The time from perception to generation of knowledge is greatly influenced by the intensity of perception of

objects. Most human knowledge is acquired through the eyes and ears. (Notoadmojo, 2003 in Wawan dan Dewi M, 2011)

Knowledge plays a very big role for someone to carry out an action. A person's level of knowledge affects the needs of both himself and others. Mothers with a low level of knowledge will mostly be indifferent to the condition of their babies, on the contrary, mothers with a more average level of knowledge will be very concerned about exclusive breastfeeding or complementary feeding. (Widiastuti, et al, 2020)

The nutritional status of the baby is an indicator in determining the degree of health of the child. Nutrition during childhood greatly affects growth and development, especially since it is still in the womb, nutrition plays an important role (Soetjiningsih, 2010). Conversely, if infants and children at this time do not get food according to their nutritional needs, then the golden period will turn into a critical period that will interfere with the growth and development of infants and children, both at this time and the next (Nasar, 2011) in (Wardani, G. K, 2018).

One factor that can affect a person's food intake is nutritional knowledge that will affect a person's nutritional status. Nutritional knowledge is knowledge related to food and nutrients. The behavior and attitude of mothers in choosing food to be consumed by babies are influenced by various factors, including the level of knowledge of a person about nutrition so that it can affect a person's nutritional status. Lack of maternal nutritional knowledge can be a problem one of the determinants of infant nutritional status because it determines the behavior or attitude of the mother in choosing the food to be consumed by the baby and the provision of food related to the frequency of eating and the type that wants to influence the consumption of food in the baby. Maternal nutrition knowledge can be influenced by age, knowledge, education, and occupation. (Puspasari and Andriani, 2017)

Based on the research results of Endang Susilowati and Alin Himawati (2017). One aspect that is significantly related to the nutritional status of toddlers is the knowledge of mothers. Because for the research tried by Endang Susilowati and Alin Himawati (2017), if it continues to be a large level of knowledge until it continues to be a lot of knowledge to share food with the best nutritional status for their children.

From the results of the study and in accordance with the theory above, it was found that there was a relationship between the level of maternal knowledge about breastfeeding and nutritional status in infants aged 6-24 months in Banjarworo Village, the working area of the Bangilan Health Center. Meanwhile, according to the results of research that has been conducted by researchers in Banjarworo Village, the working area of the Bangilan Health Center, that a good level of knowledge does not necessarily affect the nutritional status of good babies.

CONCLUSION AND ADVICE

Conclusion

Based on the results of the research that has been done, the following conclusions can be drawn:

1. Almost half of the mothers who have babies aged 6-24 months in Banjarworo Village, the Bangilan Health Center work area, have good knowledge.
2. Almost half of mothers who have babies aged 6-24 months in Banjarworo Village, Bangilan Health Center work area, have malnutrition status.
3. There is a relationship between the level of maternal knowledge about breastfeeding and nutritional status in infants aged 6-24 months in Banjarworo Village, Bangilan Health Center work area.

Suggestion

From the results of the research that has been done, the suggestions that can be conveyed by researchers are as follows:

1. Mothers who have good knowledge are advised to further develop their knowledge by participating in counseling held by health workers in order to increase knowledge about breastfeeding and infant nutritional status.
2. For mothers who have babies aged 6-24 months with poor nutritional status to improve the nutritional status of infants. By providing complementary foods that are appropriate for the baby's age, providing the correct type of complementary foods and always routinely following weight and height checks to the posyandu.
3. The need to provide the right type of complementary food for babies so that all the nutrients needed are fulfilled properly and growth and development is not stretched

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