

## Factors Affecting the Provision of Supplementary Food to Infants Under the Age of Six Months in the Working Area of Peukan Bada Health Center, Aceh Besar District

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### ABSTRACT

The group is a period where malnutrition is prone to occur, so special attention needs to be given at this age. Malnutrition at this time will have a long-term impact. The impact that can arise on malnutrition is the disruption of growth and development which is a short-term impact and a high risk of developing non-communicable diseases as an adult as a long-term impact. Fear of malnutrition under five, some mothers give additional food to infants under six months; therefore, the purpose of this study is to analyze the factors that influence mothers to give additional food to infants aged less than six months in the working area of Pekan Bada Public Health Center, Aceh Besar District. . This research is a descriptive-analytic study with a cross-sectional study approach. The population in this study were all mothers who had babies aged 0-6 months who were recorded from January to June in the working area of Pekan Bada Health Center, Aceh Besar District, as many as 102 mothers. The sample in this study were mothers who had babies aged 0-6 months who visited Peukan Bada Health Center from January to June 2021. Sampling was done using the Simple Random Sampling technique. The study results found an influence of family support on providing additional food for infants less than six months old in the Work Area of the Pekan Bada Health Center, Aceh Besar District, in 2019. With the results of the chi-square test, it was obtained p-value = 0.005 or p-value < = 0.05. There is an influence between maternal health conditions on the provision of additional food to infants less than 6 months old ( p-value = 0.009) or p-value < = 0.05. Infant Health Conditions influence infant health conditions on giving additional food to infants under six months old, as evidenced by the chi-square test results obtained p-value = 0.020s or p-value < = 0.05.

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## 1. Introduction

The first five years of life require adequate nutrition for optimal growth and development of children [1]. The toddler age group is a period where malnutrition is prone to occur, so special attention needs to be given at this age. Malnutrition at this time will have an impact in the future, including disruption of physical growth and brain development as a short-term impact and a high risk of developing non-communicable diseases in adulthood as a long-term impact [2],[3]. The incidence of early breastfeeding complementary foods in Indonesia is still high. The emergence of health problems due to errors in complementary feeding will indirectly affect the nutritional status of infants [4]. More than 50% of infants in Indonesia receive complementary feeding, namely

providing food other than exclusive breastfeeding at infants less than six months [5],[6].

Meanwhile, the 2015-2019 Sustainable Development Goals (SDGs) target exclusive breastfeeding for infants less than six months of age is 50%. Data from the Ministry of Health of Indonesia [7]. Exclusive breastfeeding coverage for infants at the national level has met the target, but there is still a significant decline from 54.3% in 2015 to 52.3% in 2016, while infants who do not receive exclusive breastfeeding or have received complementary feeding (MP). -Breastfeeding) increased by 47.7% early [8].

According to the Indonesian Demographic and Health Survey (IDHS) in 2017-2018, data on the number of exclusive breastfeeding for infants under the age of two months only covers 64% of the total babies [8]. This percentage decreases with the increasing age of the baby. Namely, 46% in infants aged 2-3 months and 14% in infants aged 4-5%. Even more concerning, 13% of infants under two months have been fed formula, and one in three infants aged 2-3 months have been given complementary foods [8].

The number of babies who received exclusive breastfeeding in Aceh province was 33.92 %; for the rest, mothers tended to give formula milk and other food to their babies. Based on the 2020 target, this coverage is expected to reach 80%, so in the next year, it is expected that there will be an increase so that the targets that have been set can be achieved [9]. Data from the Pekan Bada Health Center in February 2019 showed that 12 exclusively breastfed babies (3.4%) and 335 babies (96.6%) tended to be given food or drinks other than breast milk. Usually, they give bananas and formula milk. From the data above, it can be seen that mothers' awareness of giving exclusive breastfeeding to their babies is still lacking, so many mothers give other food too early to their babies aged 0-6 months. Based on data at the Pekan Bada Health Center, from 2018 to 2019, mothers who gave other food too early to their babies reached 226 people (65%) [10].

Based on the initial survey conducted in the Work Area of the Pekan Bada Health Center, with interviews with several mothers who brought their babies to the puskesmas, including 14 mothers who gave other foods other than breast milk to their babies aged between 2-3 months, such as bananas and formula milk. Because the child often cries, breast milk does not come out due to swelling of the breast, which causes pain when breastfeeding, and the condition of the baby's low weight so that they give food or drink other than breast milk the reason that the baby gains weight.

In addition, the reason for the mother to give food or drink other than breast milk is also due to the support or encouragement of family members. Usually, the family advises the mother to give bananas and drink formula milk so that the baby is full. Giving food or drink other than breast milk to infants aged 0-6 months is not good because it can damage the baby's digestive system. Based on the description of the background above, the researcher concludes that how dangerous it is to give other food too early to infants aged less than six months, considering that several factors are very susceptible to influence mothers to give food or drinks other than breast milk at the age of babies 0-6 months. Such as family support, maternal health conditions, and infant health conditions; the researchers are interested in researching the factors that influence mothers to give additional food to infants aged less than six months in Pekan Bada Public Health Center's working area Aceh Besar District.

## 2. Methods

This research is a descriptive-analytic study with a cross-sectional study approach, that is, a study that measures variables simultaneously and aims to determine the factors that influence mothers to give additional food to infants aged less than six months in the working area of Pekan Bada Public Health Center, Aceh Besar District. The population in this study were all mothers who had babies aged 0-6 months who were recorded from January to June in the working area of Pekan Bada Health Center, Aceh Besar District, as many as 102 mothers. The sample in this study were mothers who had babies aged 0-6 months who visited Pekan Bada Health Center from January to June 20, 21. Sampling was done using the Simple Random Sampling technique. This study used inclusion and exclusion criteria. The inclusion criteria are 1) Respondents have babies aged 0-6 months; 2) Respondents are willing to be researched; 3) Babies born typically; 4) The baby does not have any congenital disabilities in the digestive tract. Moreover, the exclusion criteria, namely: 1) Respondents who have babies 7-12 months; 2) Respondents who are not willing to be researched. Here is how to calculate the sample using the Slovin formula:

$$n = \frac{N}{1 + N(d^2)}$$

$$n = \frac{102}{1 + 102(0,01)}$$

$$n = \frac{102}{2,02}$$

$$n = 50,49 = 50$$

Information :

N = total population

n = number of samples

d 2 = level of confidence that desired by the researcher (0.01)

So, the result of the sample calculation is 50.49 samples, and the researchers rounded up to 50 samples to facilitate sampling.

**TABLE 1.**  
DISTRIBUTION OF THE NUMBER OF SAMPLES BY AGE

| Age        | Number of Babies (population) | Sample calculation | Number of samples |
|------------|-------------------------------|--------------------|-------------------|
| 0-1 Month  | 20                            | 20/102x50          | 10                |
| 1-2 Months | 16                            | 16/102x50          | 8                 |
| 2-3 Months | 15                            | 15/102x50          | 7                 |
| 3-4 Months | 18                            | 18/102x50          | 9                 |
| 4-5 Months | 15                            | 15/102x50          | 7                 |
| 5-6 Months | 18                            | 18/102x50          | 9                 |
| Total      | 102                           |                    | 50                |

Data was collected by distributing questionnaires to 15 respondents who visited the Puskesmas. In addition, researchers to obtain data also visited the village as many as 35 people. This is due to the health condition of the mother after giving birth. The distributed questionnaire in the form of questions related to the variables studied, with a weighted score of 1 if the answer is correct and 0 if the answer is wrong. Secondary data is a source of research data obtained indirectly through intermediary media (obtained and recorded by other parties). Secondary data is generally in the form of evidence, notes, or historical reports that have been compiled in published and unpublished archives (documentary data) sourced from Puskesmas, Health Office, and Libraries. Data processing will be done by editing, coding, and transferring. The next step is data presentation. Data analysis using Univariate Analysis and Bivariate analysis using chi-square. Test.

### 3. Results and Discussion

#### 3.1 Result

Characteristics of Respondents

**TABLE 2.**  
DISTRIBUTION OF RESPONDENTS' EDUCATION FREQUENCY IN THE WORK AREA OF THE HEALTH CENTER PEKAN BADA

| No     | Education     | f  | %    |
|--------|---------------|----|------|
| 1.     | Base          | 9  | 18.0 |
| 2.     | Intermediate  | 22 | 44.0 |
| 3.     | Tall          | 19 | 38.0 |
| 1.     | ART           | 31 | 62.0 |
| 2.     | farmer        | 8  | 12.0 |
| 3.     | civil servant | 11 | 22.0 |
| Amount |               | 50 | 100  |

Based on Table 2 shows that of the 50 respondents, it turns out that the majority of respondents' education is secondary, namely 22 people (44%). Out of 50 respondents, it turns out that the majority of respondents work as housewives (IRT), namely 31 people (62%).

**a. Univariate Analysis, Supplementary Feeding for Babies Less Than 6 Months**

**TABLE 3.**  
DISTRIBUTION OF THE FREQUENCY OF SUPPLEMENTARY FEEDING TO INFANTS < 6 MONTHS IN THE WORKING AREA OF PEUKAN BADA PUBLIC HEALTH CENTER, ACEH BESAR DISTRICT

| No                        | Supplementary Feeding for Babies < 6 Months | f  | %    |
|---------------------------|---|----|------|
| 1.                        | Yes   | 28 | 56.0 |
| 2.                        | No  | 22 | 44.0 |
| Family support            |   |    |      |
| 1.                        | Support                                     | 26 | 52.0 |
| 2.                        | Does not support                            | 24 | 48.0 |
| Mother's Health Condition |   |    |      |
| 1.                        | Healthy                                     | 32 | 64.0 |
| 2.                        | Not healthy                                 | 18 | 36.0 |
| Baby's Health Condition   |   |    |      |
| 1.                        | Healthy                                     | 36 | 72.0 |
| 2.                        | Not healthy                                 | 14 | 28.0 |

Table 3 shows that of the 50 respondents, 28 people (56%), mothers provide additional food when the baby is less than six months old. Of the 50 respondents, as many as 26 people (52%) the respondent's family supports providing additional food other than breast milk to infants aged less than six months. as many as 32 mothers (64%), their mother's health condition was healthy. as many as 36 respondents (72%) said the health condition of their babies was healthy.

**b. Bivariate Analysis, The Effect of Family Support on Supplementary Feeding for Babies Less Than 6 Months**

**TABLE 4**  
EFFECT OF FAMILY SUPPORT ON SUPPLEMENTARY FEEDING FOR INFANTS < 6 MONTHS OF AGE IN THE WORK AREA OF PEUKAN BADA PUBLIC HEALTH CENTER

| No     | Family support   | Supplementary Feeding for Babies < 6 Months |      |    |      | Amount | P-value | □     |      |
|--------|------------------|---|------|----|------|--------|---------|-------|------|
|        |                  | Yes   |      | No |      |        |         |       |      |
|        |                  | f   | %    | f  | %    |        |         |       |      |
| 1.     | Support          | 20  | 76.9 | 6  | 23.1 | 26     | 100     | 0.005 | 0.05 |
| 2.     | Does not support | 8   | 33.3 | 16 | 66.7 | 24     | 100     |       |      |
| Amount |                  | 28  | 56.0 | 22 | 44.0 | 50     | 100     |       |      |

Table 4 shows that of the 26 mothers whose families support the provision of other foods besides breast milk at the age of infants < 6 months, as many as 20 mothers (76.9%) gave other additional foods when their babies were less than six months old. Only six mothers (23.1%) did not provide other additional food to their babies for less than six months. The results of statistical tests using the *Chi-Square Test calculation* obtained a *P-value* = 0.005; the value is smaller than = 0.05. Thus, it can be concluded that there is an influence between family support on supplementary feeding for infants less than six months old in The Working Area of Peukan Bada Health Center, Aceh Besar District.

**c. The Effect of Maternal Health Conditions on Supplementary Feeding for Babies Less Than 6 Months Old**

**TABLE 5**

THE EFFECT OF MATERNAL HEALTH CONDITIONS ON SUPPLEMENTARY FEEDING FOR INFANTS LESS THAN 6 MONTHS OLD IN THE WORK AREA OF PEUKAN BADA PUBLIC HEALTH CENTER

| No     | Mother's Health Condition | Supplementary Feeding for Babies < 6 Months |      |    |      | Amount |     | P-value | □    |
|--------|---------------------------|---|------|----|------|--------|-----|---------|------|
|        |                           | Yes   |      | No |      | f      | %   |         |      |
|        |                           | f   | %    | f  | %    |        |     |         |      |
| 1.     | Healthy                   | 13  | 40.6 | 19 | 59.4 | 32     | 100 | 0.009   | 0.05 |
| 2.     | Not healthy               | 15  | 83.3 | 3  | 16.7 | 18     | 100 |         |      |
| Amount |                           | 28  | 56.0 | 22 | 44.0 | 50     | 100 |         |      |

Table 5 shows the healthy condition of only 13 mothers (40.6 % ) who gave other complementary foods to infants aged < 6 months, and 19 mothers (59.4%) did not provide other complementary foods other than breast milk at the age of infants less than six months. The results of statistical tests using the *Chi-Square Test calculation* obtained a *P-value* = 0.009; this value is smaller than = 0.05 thus it can be concluded that there is an influence between maternal health conditions on supplementary feeding for infants < 6 months in The Working Area of Peukan Bada Health Center, Aceh Besar District.

#### d. The Effect of Infant Health Conditions on Supplementary Feeding for Babies Less Than 6 Months Old

**TABLE 6**

THE INFLUENCE OF INFANT HEALTH CONDITIONS ON SUPPLEMENTARY FEEDING FOR INFANTS AGE LESS THAN 6 MONTHS IN THE WORKING AREA OF PEUKAN BADA PUBLIC HEALTH CENTER

| No     | Baby's Health Condition | Supplementary Feeding for Babies < 6 Months |      |    |      | Amount |     | P-value | □    |
|--------|-------------------------|---|------|----|------|--------|-----|---------|------|
|        |                         | Yes   |      | No |      | f      | %   |         |      |
|        |                         | f   | %    | f  | %    |        |     |         |      |
| 1.     | Healthy                 | 16  | 44.4 | 20 | 55.6 | 36     | 100 | 0.02    | 0.05 |
| 2.     | Not healthy             | 12  | 85.7 | 2  | 14.3 | 14     | 100 |         |      |
| Amount |                         | 28  | 56.0 | 22 | 44.0 | 50     | 100 |         |      |

Table 6 as many as 16 people (44.4%) gave other additional food to their babies less than six months old, and as many as 20 people (55.6%) did not give other additional foods to their babies less than six months. The results of statistical tests using the *Chi-Square Test calculation* obtained a *P-value* = 0.020, the value is smaller than = 0.05, so it can be concluded that there is an influence between the health conditions of infants on supplementary feeding for infants < 6 months in The Working Area of Peukan Bada Health Center, Aceh Besar District.

### 3.2 Discussion

The results showed an effect of family support on providing additional food for infants less than six months old in the Pekan Bada Public Health Center, Aceh Besar District, with a *P-value* = 0.005. High family support for complementary feeding hurts infant health. Good support will encourage mothers not to give complementary foods to breast milk for their babies at the age of 0-6 months, for that information about complementary foods is given not only to mothers but also to husbands and families, so that they also gain knowledge about them complementary foods and breastfeeding. It helps prevent or support mothers not giving complementary foods early [ 11]. Support is critical, starting from the baby in the womb. The fetus in the womb gets adequate nutrition, so when it is born, its weight and length will be average; to maintain this, the effective way is by giving complementary foods to breast milk (MP-ASI) from the age of 6 months and continued breastfeeding until the age of 2 years [12],[13]. Then the study results also found an influence between maternal health conditions on giving additional food to infants < 6 months in the Pekan Bada Health Center Work Area, Aceh Besar District, with a *P-value* = 0.009. The health problem that mothers often feel when breastfeeding is swelling in their breasts. Breast engorgement is a reason for mothers to stop breastfeeding or a reason to start giving food or drinks other than breast milk, so most mothers are no longer exclusive breastfeeding [14]. Breast engorgement occurs due to mild edema due to obstruction of the veins or lymphatic channels due

to the accumulated milk in the breast. The accumulation of milk in the breast is caused by the baby not suckling strongly, breastfeeding is not correct, and there are flat nipples. One of the health problems that cause mothers to choose complementary foods for early breastfeeding is the occurrence of swelling in the breasts, and the milk does not come out, or the milk production is less, so they choose to give other foods besides breast milk because the baby is complete and not fussy. Some mothers with healthy conditions continue to provide additional food to babies under six months, arguing that they do not have time because the mothers are busy working. Mothers with unhealthy conditions still do not give additional food to babies because they can still give only breast milk until the baby is over six months old and does not interfere with his health condition. The results of the study also found that there was a significant relationship between the health condition of infants and early breastfeeding with a P value  $(0.001) < (0.05)$ .

The baby's health condition allows a mother to give other foods other than breast milk to increase her weight [15],[16]. Giving other complementary foods to infants less than six months old can affect the baby's health condition. Giving additional food at the age of babies who are not even six months old will cause babies to get more diarrhea, allergies, constipation, colds, fever, and obesity compared to babies who only get exclusive breastfeeding [17],[18]. This, of course, affects the health of the baby. The baby's health condition can influence a mother to give complementary foods too early. Mothers' awareness of the dangers of giving other foods other than breast milk at the age of babies less than six months is still lacking. If the baby is 0-6 months old, if he is sick, it is enough to give only breast milk; the baby will recover because breast milk is perfect for maintaining the baby's immune system. Some babies are healthy; the baby's mother continues to provide additional food because the child is sick and has inadequate nutrition. However, the baby also has an unhealthy condition; the mother still does not give additional food to babies under six months. The mother feels that breast milk alone is sufficient to meet her baby's nutrition, and other food is too early. Mother is afraid that her baby's health condition will worsen.

#### 4. Conclusion

Family support influences family support on providing additional food to infants less than six months old in the Work Area of the Pekan Bada Health Center, Aceh Besar District, With the results of the chi-square test, it is obtained  $p\text{-value} = 0.005$  or  $p\text{-value} < = 0.05$ . There is an influence between Maternal Health Conditions on providing additional food to infants less than six months old in the Work Area of Pekan Bada Health Center, Aceh Besar District, in 2019. With the results of the chi-square test, it is obtained  $p\text{-value} = 0.009$  or  $p\text{-value} < = 0.05$ . There is an influence between Infant Health Conditions on providing additional food to infants less than six months old in the Work Area of the Pekan Bada Health Center, Aceh Besar District, With the results of the chi-square test, it is obtained  $p\text{-value} = 0.020$ s or  $p\text{-value} < = 0.05$ .

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