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CORRELATION OF WEANING FOOD WITH THE EVENT OF STUNTING TO TODDLERS IN KALI RUNGKUT VILLAGE SURABAYA

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Abstract:

Stunting is a chronic nutritional problem due to several factors and is intergenerational. For the number of children with stunting conditions, Indonesia is ranked fifth globally. This is due to one of the reasons for the provision of less nutritious food during the growth period obtained from weaning food. The purpose of this study was to determine whether there was a relationship between the provision of weaning food and the incidence of stunting in children in Kali Rungkut Village, Surabaya. This study is a case control method of chi square analysis and kappa correlation using primary data, namely questionnaires. The number of samples that meet the criteria are 53 people, then the data is processed with SPSS. Based on the results of the study, the relationship between complementary feeding and the incidence of stunting in Toddlers in Kali Rungkut Village, Surabaya, with a p-value of 0.002 less than (0.05) and an OR of 6.429. Based on the results of the study, it can be concluded that there is a significant relationship between the provision of complementary foods and the incidence of stunting in children under five in Kalirungkut sub-district, Surabaya and the relationship between the provision of complementary foods and the incidence of stunting is a large category, which has a risk of 6,429 times greater in the provision of complementary foods, less good in the incidence of stunting than the provision of complementary foods. the good one.

Keywords: Weaning; Food; Stunting; Toddler

Introduction

Stunting is a condition of severe malnutrition due to lack of nutritional intake or malnutrition in the long term due to improper and appropriate feeding. Where it is known that malnutrition at an early age is at risk of increasing infant and child mortality.¹

For the number of children with stunting conditions, Indonesia is ranked fifth globally.² The prevalence of stunting in children under five in the Kali Rungkut Village in 2021 was recorded at 2.15% of all disease incidences in the Puskesmas in Kali Rungkut Village, Surabaya.

Another factor in the problem of feeding infants is the cessation of proper breastfeeding and weaning food. It is recommended by WHO (2010) that exclusive breastfeeding is given in the first 6 months of a baby's life and after that it can be continued with weaning food while continuing to breastfeed until the age of 2 years. According to research, if the introduction of weaning food is too early (< 4 months) it can cause stunting.³

Weaning food is food that contains nutrients that are given to infants or children aged 6-24 months which are nutritional needs other than breast milk. Delay in give weaning food because exclusive breastfeeding that is given for too long can cause a child's nutritional intake to be lacking so that it cannot support the growth and development process. Weaning food can be done gradually according to the child's age.¹ According to research conducted by Khasanah et al., there is a relationship between the time of give weaning food to the incidence of stunting in children at the age of 6-23 months.⁴

One of the efforts made by the government to tackle stunting cases, namely in September 2012 the government carried out a program namely the movement of the first 1000 days of life which is also called 1000 HPK, the purpose of this program is to reduce the proportion of stunting or stunting to 32%.¹

Research Method

Provide sufficient detail methods to allow the work to be reproduced. Methods already. This study uses a case control method of chi square analysis and kappa correlation. This research was conducted at the Kali Rungkut Village Health Center, Surabaya. The case population in this study were all children under five (toddlers) who were recorded at the Kali Rungkut Village Health Center Surabaya. The sample size to be carried out in this research is 53 with the sampling technique, namely the total sampling method. The data that has been collected in this study will then be processed using the Chi-Square test and Kappa Correlation on a computer program, namely SPSS.

Results

Characteristics of respondents by gender

The distribution of respondent's frequency by gender of toddlers in Kali Rungkut Village, Surabaya can be seen in Table 1.

Table 1 Distribution of Respondents Frequency by Gender of Toddlers in Kali Rungkut Village, Surabaya

No	Gender	Frequency	Percentage (%)
1.	Male	23	43
2	Female	30	57
Total		53	100

Source: primary data for 2022

Based on Table 1 shows that of the 53 respondents most (56.60%) of the respondents are female, and the rest (43.40%) of the respondents are male.

Overview of the Z-Score of Toddlers

Score values for toddlers in Kali Rungkut Village, Surabaya, Surabaya are presented in Table 2.

Table 2 Z-Score Values for Toddlers in Kali Rungkut Village, Surabaya, Surabaya

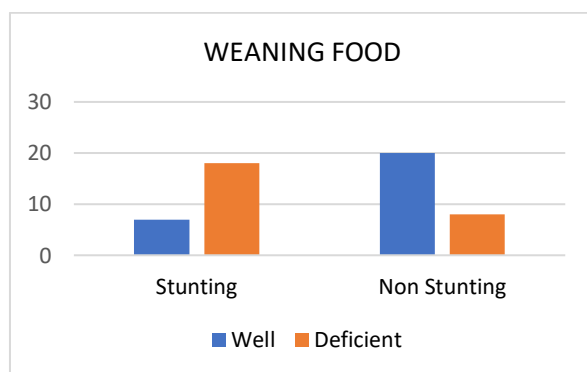
No	Z-score	Frequency	Percentage (%)
1.	<-3SD (very short)	9	17
2.	<-2SD (short)	16	30
3.	<+3SD (normal)	27	51
3.	>+3SD (tall)	1	2
Total		53	100

Source: primary data for 2022

Based on Table 2 shows that of 53 respondents, the most obtained with Z-Score values are Normal (51%), Very short (17%), Short (30%), and High (2%).

Conclusions/Indications from the Weaning Food Questionnaire

The indication from the questionnaire can be seen in Figure 1.

**Figure 1** Data Results from the Questionnaire on Weaning Food

Based on Figure 1 shows that from 53 respondents, the most results obtained with the conclusion that the provision of give weaning food well at 51% and the conclusion that the provision of weaning food deficient at 49%.

The relationship between weaning food and the incidence of stunting in toddlers in Kali Rungkut Village, Surabaya

The relationship between weaning food and the incidence of stunting in toddlers in Kali Rungkut Village, Surabaya Is presented in Table 3.

Table 3 Chi square test and kappa correlation on the relationship between weaning food and stunting.

Weaning food	Stunting		Non-Stunting	
	F	%	F	%
Well	7	28	20	71
Deficient	18	72	8	29
Total	25	100	28	

$p = 0.002$; Odds Ratio = 6,429

Based on Table 3 shows the results of the chi-square test, which is 0.002 which is less than (<0.05), the results of the kappa test are also obtained, namely 0.002 which means less than (<0.05), and the odds ratio is 6.429 which means more of (>2).

Discussion

The results of the study based on Table 2 show that of the 53 respondents in Kali

Rungkut Village, Surabaya, the most obtained values are Z-Score Normal (51%), Very Short (17%), Short (30%), and High (2%) , which means that children under five who experience stunting are less than normal.

Table 3 shows that most (51%) of respondents well give weaning food and a small proportion (49%) deficient give weaning food.

In the Chi square test, the value is 0.002, which means it is smaller than (< 0.05), so there is a difference or have correlation in give weaning food that are well and deficient. And in the kappa test, it was found that approx sig of 0.002, which means it is also greater than (< 0.05), so it can be concluded from these results that there is a relationship or have correlation between the provision of give weaning food and the incidence of stunting and non-stunting. The result value of the odd ratio is 6.429, which means the OR value is greater (> 2) which means that give weaning food feedback is a risk factor that needs to be taken into account for stunting and non-stunting events and non-stunting and giving MPASI less well 6.429 times more risk of stunting than those given good complementary food.

Nutritional problems that usually occur, such as underweight (W/U), (TB/U), namely stunting, over nutrition or obesity and lack of vitamin A. ⁵ Stunting is one indicator that can describe the existence of chronic nutritional problems that result in stunted growth and development. ⁶

In line with research results of Wandini et al. with this type of quantitative research using an analytical survey, the statistical test results obtained, namely p-value 0.001, this proves that there is a significant relationship between the provision of weaning food and the incidence of stunting.⁷ Confirmed by research Astuti et al., It was also concluded that there was a relationship between the provision of weaning food and the incidence of stunting in toddlers with the test results using the Chi-Square test $p = 0.001 < (= 0.05)$.⁵ In a study conducted by Widaryanti with the title "Breastfeeding Weaning Food Reduces Stunting Incidence in Toddlers in Sleman Regency." The results of the bivariate analysis with the chi square test found that respondents with inappropriate weaning food were mostly stunted, namely 47% and

respondents Those who provide weaning food correctly have normal nutritional status as much as 45%, which means that there is a relationship between the provision of weaning food and the incidence of stunting. ⁸

However, in contrast to research Lutfianti et al. also which is a type of quantitative research and uses a cross sectional design. ⁹ From the research results obtained with a p value of 0.107 which shows the results of the correlation test, it was found that Ho was accepted and Ha was rejected, which means that there is no relationship between the history of weaning food with the incidence of stunting. And also not in line with research Asmirin et al. which also proves that there is no significant relationship between the provision of weaning food to the incidence of stunting in Toddlers with the results obtained, namely p value 0.238 (> 0.05) and PR value 1.667. ¹⁰

MPASI is a complementary food for MPASI which is given to children aged 6-24 months where MPASI itself contains macro and micronutrients, each of which has a function on growth and development in children under five, the selection of MPASI food ingredients must be appropriate so that the need for macronutrients such as carbohydrates, protein, fat , as well as micronutrients such as vitamin A and iron can be met, where carbohydrates function for the performance of the brain, kidneys, heart muscle, and central nervous system found in rice, wheat, potatoes, or cassava, while protein functions to build muscles and tissues in the body and increase endurance contained in chicken, fish or beef, and fat also has a function in brain and nerve growth and is also needed for body metabolism, blood flow and helps the body absorb vitamins for example in vegetable oil, or from salmon broth and chicken feet. Micronutrients are just as important as macronutrients, so don't overlook it not need micronutrients. Because,

if there is a lack of micronutrients, it can lead to malnutrition, for example micronutrients, namely Microminerals which are essential nutrients that contain calcium, magnesium, sodium, and potassium and are very important for muscle and bone health in milk, black beans. Then iron, manganese, copper, zinc, and selenium are included in trace minerals needed for healthy muscles, the nervous system, and for repair of damaged cells found in spinach, beans. Vitamins A, B, C, D which have functions in the development of hair, nails, skin teeth, bones and plays a role in the nervous system and calcium functions in supporting the growth of bones and teeth, maintaining healthy nerves and muscles. Therefore, if complementary foods are not given at that age, even though the nutrients and nutrients in the growth and development process that are needed increase, which can not only be obtained from breast milk alone, will cause a deficiency and result in disruption of the growth and development process in the child.

If given the right to give weaning food, the child's growth and development will be well because the nutrition obtained from weaning food is the main factor supporting the occurrence of metabolic processes in the body. Therefore, if the mother gives weaning food correctly, then the incidence of stunting will be low and vice versa if the provision of weaning food is not appropriate, the incidence of stunting itself will be higher.

Conclusions

Based on the results of the research and discussion that have been described, it can be concluded that the number of toddler in Kali Rungkut Village, Surabaya who were give weaning food well was greater than those who were deficient. Toddler in Kali Rungkut Surabaya, who experienced stunting were mostly caused by deficient give weaning food. It can be concluded from the results that there is a relationship or correlation between the

provision of weaning food and the incidence of stunting in toddler in Kali Rungkut Village, Surabaya based on the kappa statistical test with a value of approx sig of 0.002.

Acknowledgements

It is hoped that health workers can remember the large adverse impact of stunting. Further researchers also need to conduct or conduct similar research by adding other factors or even other variables that affect stunting by using a larger sample size so that the research results are even better, and for respondents, it is expected that the community, especially mothers in the Kali Rungkut Village, Surabaya, always pay attention to nutritional status and monitor signs of child growth and development and maintain parenting patterns including feeding children to avoid stunting conditions.

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