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MOTHER'S KNOWLEDGE AND HYGIENE SANITATION AGAINST STUNTING IN TODDLERS

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Abstract

Toddler development can be disrupted if there are nutritional problems such as stunting. One of the factors that influence stunting is knowledge about nutrition and sanitation hygiene. Knowledge of maternal nutrition will affect children's food intake, while hygiene behavior is related to the incidence of infection in children. This study aims to determine the relationship between the incidence of stunting in children under five and mothers' knowledge about nutrition and sanitation. This type of study was analytic observational with a cross-sectional study design. The number of samples in this study was 90 people in two villages (Laburunci and Dongkala villages, Pasarwajo sub-district, and Buton district). Sampling used the Non-Probability Sampling technique. The variable incidence of stunting was the dependent variable of this researcher, while the independent variable consisted of the mother's knowledge and sanitation hygiene. Univariate and bivariate data analysis with a chi-square test was carried out in this study. There was a relationship between the mother's knowledge (p=0.000) and sanitation hygiene (p=0.000) of the incidence of stunting in the working area of the Banabungi Public Health Center. This study concluded that to prevent the toddler from stunting we need to increase the mother's knowledge against stunting and efforts to improve sanitation hygiene to minimize the risk of infection which can affect the nutritional status of toddlers. Therefore, this study should be a base for the government to provide socialization about nutrition and hygiene sanitation to the community so that it can be applied in daily life.

Keywords: *knowledge; sanitation hygiene; stunting; toddler*

1. Introduction

The existence of chronic nutritional problems in toddlers is a trigger for short toddlers. The condition of short toddlers or stunting is influenced by the condition of the mother-to-be, the growing period of the fetus, and the period of growth and development of the baby toddler. In addition, there are illnesses suffered by babies and other problems that indirectly affect their health (Uliyanti, Didik Gunawan Tamtomo, 2017).

Indonesia is the fifth country with the highest stunting incidence in the world after India, China, Nigeria, and Pakistan. However, the stunting rate in Indonesia in 2018 decreased significantly, especially in the very short status group, namely 11.5% and short by 19.5%. The results of data from the Health Office of Southeast Sulawesi Province in 2016 stated that the prevalence of stunting was 29.6% and increased in 2018 to 36.4% of cases. quite high, namely in 2016 stunting cases amounted to 27.5%, in 2017 stunting cases increased by 33.7% cases and in 2018 the results of research from Baubau Health Department on stunting cases decreased by 28.3% 4, while Stunting cases in Buton Regency in 2017 were 38.3% and decreased in 2018 to 20% (Dinkes Kota Baubau, 2018).

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There are various studies related to the determination of stunting in various regions. Research conducted by Windasari (2018) shows that the incidence of stunting can be influenced by the early initiation of breastfeeding and the baby's weight at birth (Windasari et al., 2020). Meanwhile, based on Aridiyah's research (2015) on education, income, mother's knowledge, breastfeeding, complementary feeding, iron, and zinc adequacy levels, and genetic and infectious diseases that influence stunting (Aridiyah et al., 2015). Family income, exclusive breastfeeding, and parenting are also factors that cause stunting (Meilani, N. Dahmar, Darmawan, A., Amiruddin, E.A., Ira, 2021).

This study aims to add material to studies related to the risk of stunting by analyzing maternal knowledge and sanitation hygiene, this research was conducted because at the research location there were no similar studies and there were differences in community characteristics with previous studies.

2. Method

The type of research used an analytic observational study with a design cross-sectional study. The population in this study was all children under five years old in Laburunci and Dongkala villages with 424 toddlers. The number of samples studied amounted to 90 respondents obtained from the Slovin formula as follows:

$$n = \frac{N}{1 + Ne^2}$$

$$n = \frac{424}{1 + (424x0{,}093^2)}$$

$$n = \frac{424}{4{,}7} = 90$$

Non-probability sampling with an accidental sampling approach is used in the sampling technique. Primary data was obtained from respondents by using a questionnaire, while secondary data was obtained from data from the health center and the health office. Mother's knowledge was obtained from a questionnaire containing questions about the nutrition of toddlers through the five senses which include nutritional needs, nutritional principles, and eating patterns of toddlers. Sanitary hygiene was also obtained from a questionnaire containing questions about health efforts by maintaining and protecting children to maintain personal hygiene and obtain a healthy environment. The stunting variable was obtained from the measurement of the toddler's height based on age (H/A) which was less than -3 standard deviations than the height should be. The data is processed using the stages of editing, coding, data entry, data cleaning, and data tabulation. Data analysis was performed using statistical analysis consisting of univariate analysis, and bivariate analysis in the form of cross-tabulation using the chi-square statistical test in the SPSS program.

3. Result and Discussion

Table 1 below shows the categories of respondents based on age group, infant age group, gender, education level, stunting knowledge, sanitation hygiene, and stunting incidence. The majority of respondents were in the age group of 26-30 years (51.1%). Most respondents were in the group of 25-36 months (38.9%). The highest level of education is in senior high school with 46.7%. Knowledge about stunting is not good as much as 66.7%. Poor sanitation hygiene 56.7%. The incidence of stunting is 67.8%.

Table 2 shows 61 respondents stunting mothers who have good sanitation hygiene 18 or 46.2% of respondents while respondents to mothers of stunting toddlers whose sanitation hygiene is not good as many as 43 or 84.3% of respondents. Likewise, respondents who are mothers of toddlers who are not stunted and have good sanitation and hygiene 21 (53,8%).

The number of 53.8% of respondents, mothers of children under five who are not stunted and who have poor sanitation hygiene are 8 or 15.7% of respondents. The results of statistical tests to see the relationship between sanitation hygiene and the incidence of stunting using the Chi-Square statistical test, obtained a value of $p=0.000$ or $p<0.05$. Thus, there is a relationship between hygiene and sanitation with the incidence of stunting.

The result shows that the respondents of mothers with stunting toddlers have a low level of knowledge as many as 50 respondents or 83.3% and good as many as 11 respondents or 36.7%. Knowledge of mothers about foods that contain

good nutrition for toddlers is the reason. Meanwhile, mothers of toddlers who are not stunted and who have poor knowledge are 10 or 16.7% and good are 19 or 63.3%. This shows that the level of knowledge of mothers who are not good about nutrition is at risk of stunting the growth and development of the child's body so it can cause toddlers to become stunted due to poor nutritional intake. Low nutritional knowledge or lack of application of knowledge about nutrition in everyday life can cause nutritional problems.

Table 1. Univariate analysis

Variabel	n	%
Respondent's Age		
20-25 Years	16	17.8
26-30 Years	46	51.1
31-35 Years	18	20
>36 Years	18	11.1
Total	90	100
Under Five Children		
0-12 Month	9	10
13-24 Month	15	16.7
25-36 Month	35	38.9
37-48 Month	31	34.4
Total	90	100
Gender		
Male	42	46.7
Female	48	53.3
Total	90	100
Level Of Education		
No School	1	1.1
Primary School	27	30
Junior High School	42	46.7
Senior High School	18	20
Bachelor	2	2.2
Total	90	100
Stunting Knowledge		
Good	30	33.3
Not Good	60	66.7
Total	90	100
Hygiene Sanitation		
Good	39	43.3
Not Good	51	56.7
Total	90	100
Stunting Incidents		
Stunting	61	67.8
Not Stunting	29	32.2
Total	90	100

Tabel 2. Relationship between Knowledge, Sanitation Hygiene, and Stunting Incidents

Variable	Stunting Incidents				Total		p-value	OR
	Stunting		Normal		n	%		
	n	%	n	%				
Knowledge								
Good	11	36.7	19	63.3	30	100		
Not Good	50	83.3	10	16.7	60	100	0.000	3.285
Total	61	67.8	29	32.2	90	100		
Hygiene Sanitation								
Good	18	46.2	21	53.8	39	100		
Not Good	43	84.3	8	15.7	51	100	0.000	2.461
Total	61	67.8	29	32.2	90	100		

Based on bivariate analysis results mothers of stunted toddlers have a low level of knowledge as many as 50 respondents or 83.3% and good as many as 11 respondents or 36.7%. This is due to the lack of knowledge of mothers about foods that contain good nutrition for toddlers. Meanwhile, mothers of toddlers who are not stunted and who have poor knowledge are 10 or

16.7% and good are 19 or 63.3%. This shows that the level of knowledge of mothers who are not good about nutrition is at risk of stunting the growth and development of the child's body so it can cause toddlers to become stunted due to poor nutritional intake. Low nutritional knowledge or lack of application of knowledge about nutrition in daily life can lead to nutritional problems (Aditianti et al., 2016) (Arsyati, 2019).

The results of statistical tests to see the relationship mother's knowledge and the incidence of stunting using the Chi-Square statistical test obtained a p-value=0.000 or p<0.05. Thus, there is a relationship between maternal nutritional knowledge and the incidence of stunting. Where mothers with less knowledge cannot serve food with adequate nutrition and according to the age of their toddlers so toddlers with mothers with less knowledge experience malnutrition which can result in the toddler experiencing growth inhibition or stunting. These results are in line with the research of Nasikhah and Margawati (2012) in East Semarang which stated that the mother's knowledge was one of the risk factors for stunting in toddlers (Nasikhah & Margawati, 2012).

Table 2 also shows 38 respondents of stunting mothers who have good sanitation hygiene as many as 18 or 46.2% of respondents while respondents of stunting mothers whose sanitation hygiene is not good are 43 or 84.3% of respondents. Likewise, respondents from mothers under five who were not stunted who had poor sanitation hygiene, from 52 respondents to mothers of children under five who were not stunted who had good sanitation hygiene were 21 or 53.8% and respondents to mothers of infants who were not stunted who had poor sanitation hygiene were 8 or 15.7%.

Lack of access to sanitation is one of the causes of stunting. The data obtained in the field shows that there are still people who do not have family latrines, namely 27 households in Dongkala village and 4 households in Laburunci village, and TPS that do not meet the requirements because there are still many garbage collection sites that are not closed. (Dinkes Kabupaten Buton, 2019). Households have access to proper sanitation if the sanitation facilities are used to meet health requirements, including, among others, equipped with goose neck, septic tank, and Waste Water Treatment System (SPAL), which are used alone or together (Kemenkes RI, 2018).

Bacteria can thrive in poor environmental conditions and hygiene practices. Bacteria in food enter the child's body through unsanitary dishes at home and the behavior of not washing hands properly and correctly. The entry of bacteria can have an impact on children's health such as diarrhea which can cause children to lose fluids and several nutrients that are important for the body.

Nutritional status is also influenced by environmental sanitation. Lack of public access to clean water or drinking water and poor sanitation and hygiene behavior greatly contribute to health problems (Muslimin B et al., 2020) (Ramdaniati & Nastiti, 2019). Basic sanitation is dominantly related to the incidence of stunting in toddlers (Sutriyawan & Nadhira, 2020). The existence of sanitation facilities has a relationship with the incidence of stunting. The quality of good sanitation facilities will also provide good community sanitation behavior (Herawati et al., 2020) (Hartati & Zulminiati, 2020).

The results of statistical tests to see the relationship between sanitation hygiene and the incidence of stunting using the Chi-Square statistical test, obtained a value of p=0.000 or p<0.05. Thus there is a relationship between hygiene and sanitation with the incidence of stunting. Where sanitation hygiene is very influential on the incidence of stunting, this is because the incidence of stunting has been going on for a long time, namely since the first 1000 days of life it will be worsened by poor sanitation because it can cause infectious diseases caused by poor hygiene and sanitation (eg diarrhea and worms) can interfere with the absorption of nutrients in the digestive process. Some infectious diseases suffered by the baby can cause the baby's weight to drop.

The results of this study are in line with research conducted which states that there is a relationship between environmental sanitation hygiene and the incidence of stunting in the work area of the Kerkap Health Center, North Bengkulu Regency with a value of (p=0.008) (Wulandari et al., 2019). Difficult access to sanitation and poor sanitation can lead to triggering stunting in children (Kemenkes RI, 2018). Another research result stated that poor environmental sanitation is associated with

stunting in toddlers (Rahayu & Darmawan, 2019).

The study was conducted only with the scope of the knowledge of the mother and sanitation hygiene. There are still many aspects of other causes of stunting that can be studied such as the economic aspects, and the availability of supporting sanitation facilities.

4. Conclusion and Suggestions

The conclusion of the research that has been carried out is there is a correlation between maternal knowledge and hygiene sanitation on the incidence of stunting in the Banabungi Health Care Center, Buton District. Suggestions that can be given to the Health Care Center Provide socialization or counseling about nutrition and the importance of balanced nutrition for toddlers with the target of pregnant women and those who already have toddlers so that they are expected to be able to maintain optimal nutrition for toddlers from before birth to the next life so that they do not experience malnutrition. Advanced Research should be able to see aspects of the wider causes of either economics, immunization status, toddler status, to the availability of sanitation facilities.

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