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THE RELATIONSHIP BETWEEN FEEDING PATTERNS IN TODDLERS WITH THE INCIDENCE OF STUNTING

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ABSTRACT

Stunting is a form of malnutrition which is characterized by an indicator of height according to age. The TB/U indicator provides an indication of chronic nutritional problems as a result of long-standing conditions. The right diet plays an important role in the growth process in toddlers. Intake of nutrients from daily food in less amounts can result in growth delay. This study aims to determine the relationship between feeding patterns and the incidence of stunting in toddlers in the Jatinunggal Health Center Working Area in 2022. This research method is quantitative and the research design uses Cross Sectional. The population in this study were 312 stunting toddlers and the sample in this study was 76 respondents who were taken by purposive sampling technique.The dependent variable in this study is stunting. This research was conducted on a group of mothers who had stunted and non-stunted toddlers. Data was collected using a standardized questionnaire, namely the Child Feeding Questionnaire by (Camci, Bas and Buyukkaragoz, 2014) and toddlers were measured for height using a microtoise and converted into a standardized value (z-score). The data analysis technique used was univariate analysis and bivariate analysis using the Chi-Square test to determine the relationship between the variables studied. This study shows that there is a relationship between inappropriate feeding patterns in toddlers and the incidence of stunting with a significant value of P value = 0.00 and most of the toddlers are stunted in the short category. The results of this study are expected to provide useful information and it is necessary to re-educate health regarding the eating schedule so that mothers can adjust their eating patterns according to a predetermined time and can reduce stunting rates.

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1. INTRODUCTION

Diet in toddlers plays a very important role in the growth process in toddlers. Because food contains a lot of nutrients. Nutrition is a very important part of growth. Nutrition is closely related to health and intelligence. If exposed to nutritional deficiencies then the child will be susceptible to infection. If the diet in toddlers is not achieved properly, then the growth of toddlers will also be disrupted, thin body, malnutrition and can even occur short toddlers (stunting), so a good diet also needs to be developed to avoid malnutrition (Purwarni and Mariyam, 2013).

Good quality children can be obtained from fulfilling the needs of growth and development aspects so as to achieve an optimal future (Adriana, 2011). Body failure that occurs due to malnutrition at this time will have adverse effects on future life that are difficult to repair (Pribadi, 2019). Malnutrition can cause delays in brain development and decreased resistance to infectious diseases (Friyayi, 2021).

Stunting is an indicator of chronic malnutrition due to insufficient food intake for a long time, poor food quality, increased morbidity and an increase in height that is not in accordance with age (TB/U) (Evania, 2020). In general, the problem of linear growth in toddlers is often ignored because it is still considered normal as long as the child's weight meets the standards. According to several studies, stunting is associated with an increased risk of morbidity and mortality as well as inhibited growth of motor and mental abilities (Priyono, Sulistiyani and Ratnawati, 2015).

The short-term impact of stunting is the disruption of brain development, intelligence, impaired physical growth and metabolic disorders (Ministry of Health, 2016). The long-term impact of stunting is poor health, increased risk of non-communicable diseases, poor cognitive and educational achievement in childhood. (Bappenas and UNICEF, 2017). High risk of disability in old age, as well as less competitive work quality which results in lower economic productivity (Ministry of Health, 2016).

The World Health Organization (WHO) estimates the prevalence of stunted children worldwide at 22 percent or 149.2 million in 2020. Based on the 2021 SSGI results, the prevalence of stunting showed a decrease from 27.7% in 2019 to 24.4%. However, the prevalence of underweight has increased from 16.3% to 17%. When viewed according to WHO standards, only Bali Province has a good nutritional status with a prevalence of stunting below 20% (10.9%) and wasting below 5% (3%). West Java Province has the highest number of targeted districts/cities prioritized for stunting intervention with 13 districts/cities. The prevalence of stunting in West Java Province has decreased from 32.5% in 2018 to 24.5% in 2021 (Ministry of Health, 2018).

In the Sumedang area, it was recorded that in 2021 the stunting rate increased by 3.28% from 2019, which is around 8.7%, there are 9,044 or 12.5% of children spread across 26 sub-districts in Sumedang district. After I asked one of the midwives at the Jatinunggal Health Center for data via Whatsapp on April 08, 2022, it was obtained that the results of the February 2022 toddler weighing month (BPB) on toddlers / 0-59 months the number of children according to the nutritional status of BB / U very underweight was 1.3%, underweight was 9.5% and the risk of overweight was 4.1%. According to the nutritional status of TB/U very short height is 2.5%, short height is 7.9% (Puskemas Jatinunggal, 2022).

Research conducted by Farah Danita Rahman, et al (2018) found that there is a significant relationship between feeding patterns and the incidence of stunting in toddlers, the risk magnitude is 5.1, which means that families who apply good feeding patterns to toddlers will reduce the risk of stunting. Conversely, families who apply poor feeding patterns will increase the risk of stunting in toddlers. The coefficient of influence of 1.7 indicates that there is a unidirectional influence between feeding patterns on the incidence of stunting.

According to UNICEF, stunting has an impact on the level of intelligence, vulnerability to disease, decreased productivity and then hampers economic growth, increases poverty and inequality. Therefore, the incidence of stunting in the Jatinunggal Health Center working area needs special attention.

Based on the description above, there are several factors that influence the incidence of stunting in toddlers, one of which is feeding patterns. Therefore, the authors are interested in conducting research related to this problem in the form of a thesis with the title, "The Relationship between Feeding Patterns and the Incidence of Stunting in Toddlers in the Jatinunggal Health Center Working Area".

2. METHOD

This study uses quantitative research methods. Quantitative research according to Sugiyono (2017: 7) is a research method based on the philosophy of positivism, as a scientific or scientific method because it has fulfilled scientific rules concretely or empirically, objectively, measurably, rationally and systematically. Quantitative methods aim to research on certain populations and samples, collect data using research instruments, and analyze data that is quantitative or statistical.

This research design uses Cross Sectional, which is a study where the independent variable (risk factor) and the dependent variable (effect) are assessed simultaneously at the same time. This analytic method is used to measure the relationship (correlation) between the relationship between feeding patterns and the incidence of stunting in toddlers in the Jatinunggal Health Center Working Area. This study wants to analyze the relationship between feeding patterns and the incidence of stunting in toddlers in the Puskesmas Working Area. Researchers want to examine feeding patterns as an independent variable using a questionnaire instrument. Furthermore, assessing stunting in toddlers using microtoise measurements and converted into standardized values (Zscore) using WHO-2005 anthropometric standards for children under five.

The population in this study were mothers and toddlers in the Jatinunggal Health Center working area. The affordable population in this study were 312 children with stunting. The sample in this study was taken from toddlers with stunting in the Jatinunggal Health Center working area, totaling 76 respondents. Sampling technique is a sampling technique. The sampling technique used in this study is a random sampling technique (probability sampling). The random sampling method (probability sampling) is a sampling technique that

provides equal opportunities for each element in the population to be selected as a member of the research sample (Sani, 2018). The research instrument was carried out using a microtoise. Length or height was measured with a length/height measuring instrument or microtoise with an accuracy of 0.1 cm. Furthermore, height data were processed/converted into standardized values (Zscore) using the WHO-2005 anthropometric standards for children under five. Furthermore, based on the Zscore value of each indicator, the nutritional status of children under five was determined with the following limitations (Riskesdas Team 2013, 2014). Measurement of feeding patterns was measured using a questionnaire modified from the Child Feeding Questionnaire (CFQ) (Canco, Bas and Byukkaragoz, 2014). To prove the relationship between the two variables, this analysis uses a statistical test, namely the chi-square test with a significant level (α) = 0.05.

3. RESULTS AND DISCUSSION

3.1. Results

3.1.1 Univariate Analysis

The results of this study are presented in the form of univariate and bivariate analysis. The sample taken was 76 respondents. The age of respondents ranged from 12-59 months. This research was conducted in the Jatinunggal Health Center Working Area in July 2022, with the following research results.

1. Frequency of Respondents' Stunting Incidence in Toddlers with Stunting Incidence

Table 1
Frequency of Respondents' Stunting Incidence in Toddlers with Stunting Incidence

Characteristics	Category	f	%
Stunting	Short	30	39,5
	Very Short	46	60,5
Total		76	100

Based on the table above, it was found that most of the stunted toddlers in the Very Short category were 46 respondents (60.5%).

2. Frequency of Feeding Patterns in Toddlers with the Incidence of Stunting

Table 2
Frequency Distribution of Feeding Patterns in Toddlers with the Incidence of Stunting

Characteristics	Category	f	%
Diet	Exactly	31	40,8
	Inappropriate	46	60,5
Total		76	100

Based on the table above, it was found that most respondents had inappropriate feeding patterns, namely 45 respondents (59.2%).

3. Relationship between feeding patterns and the incidence of stunting in toddlers

Table 3
The relationship between feeding patterns and the incidence of stunting in toddlers

		Short	Very Short	P=Value
Diet	Exactly	5	6	0.00
	Inappropriate	25	40	0.00
	Total	30	46	0.00

Based on the table above, it can be seen that most of the feeding patterns are inappropriate as many as 40 respondents in the very short category. The results of statistical tests using Chi-Square obtained a significant degree of P value = 0.00 which means H1 is accepted, so it can be concluded that there is a significant relationship between feeding patterns and the incidence of stunting.

3.2 Discussion

Based on the results of this study, feeding patterns are associated with the incidence of stunting in toddlers with a value of P value = 0.00 from these results illustrating the strong results of proper feeding patterns are feeding patterns that are in accordance with the type of food, the amount of food and the child's meal schedule, based on this study most respondents did not apply proper feeding patterns to stunting toddlers. This is because the feeding patterns obtained in this study only describe the current state of toddlers, while according to research from Fatimah (2015) the nutritional status of stunted toddlers is an accumulation of previous eating habits, so that feeding patterns on a particular day cannot directly affect their nutritional status. The key to success in fulfilling children's nutrition lies with the mother. Good eating habits are highly dependent on the mother's knowledge and skills on how to prepare foods that meet nutritional requirements (Priyono, 2015).

Researchers also found several facts from respondents related to the feeding patterns of stunting toddlers who felt the need for nutritional consultation and assistance. Some toddlers are accustomed to consuming only rice and vegetable soup, then there are toddlers who only like to consume rice and snacks at stalls, as well as less varied food processing from mothers of toddlers who prefer to buy more practical food (Loya, 2017). The type of food consumption also determines the nutritional status of children. This is because toddlers are a nutritionally vulnerable group so that the type of food provided must be in accordance with the needs of the child's body and digestibility (Khoirun, 2015). The type of food that is more varied and has sufficient nutritional value is very important to avoid nutritional deficiencies. Good feeding patterns must be carried out early on by providing varied foods and providing information to children about good eating times. Thus, children will get used to healthy eating patterns (Jayarni, 2018).

Based on the discussion of the data that the authors have done, it appears that every mother needs to learn to provide nutritious food at home starting from diverse types of food with the amount that suits the needs of each individual in the household. Uncontrolled consumption patterns of toddlers such as excessive snack habits should be watched out by parents, especially mothers. The ideal feeding schedule is three main meals and two nutritious snacks to complete the balanced nutritional composition in a day that has not been fulfilled in the main meal.

4. CONCLUSION

Based on the results of the research and discussion described in the previous chapters, the conclusions that can be drawn from this research are:

1. There were mostly inappropriate feeding patterns in stunted toddlers in the very short category.
2. There is a relationship between feeding patterns and the incidence of stunting in toddlers in the Jatinunggal Health Center Working Area with a P value = 0.00.

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