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The realtionship between feeding patterns and stunting incidence in toddlers aged 0-24 months at the Cicangkang Girang Primary Health Care

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ABSTRACT

Stunting is one of the indicators of chronic nutritional status due to insufficiency of food intake for a long time, with poor food quality. The rank of West Java is 23rd out of 35 provinces, inciden of stunting in West Java there are 2.7 million toddlers or 29.9% affected by stunting. Primary Health Care Cicangkang Girang is one of the the highest incidence of stunting in KBB (17.49%). Stunting is one of the indicators of chronic nutritional status due to insufficiency of food intake for a long time, with poor food quality. This study aims to determine the relationship between feeding patterns and the incidence of stunting in toddlers. The method in this study uses an analytical correlation design using a cross sectional approach. The sample in this study was taken using a random sampling technique on toddlers aged 0-24 months who suffered from stunting, with a total of 110 respondents. Data analysis was carried out univariately and bivariately with chi square test. The results of this study found that 59 (53.6%) babies got an improper feeding pattern, 90 (81.8%) babies got a short stunting condition. The results of the analysis obtained a p value of 0.002 ≤ α (0.05), meaning that there was a significant relationship between feeding patterns and the incidence of stunting in toddlers. Higly recommended that Primary Health Care can provide health education to all the public about feeding patterns to toddlers according to the standards of the Ministry of Health of the Republic of Indonesia.

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INTRODUCTION

The age of infants under five years or called the toddler period is a very important period for child growth. Growth is a quantitative change that increases the number, size, dimensions at the level of cells, organs, and individuals. Growth problems in toddlers according to Basic Health Research wasting health (10.2%), underweight (17.7%) and stunting (27.2%), malnutrition (13.8%), malnutrition (3.9%) (Ministry of Health, 2018). Based on these figures, it shows that the incidence of stunting ranks first (Kemenkes RI, 2019).

Based on data from the Indonesian Toddler Nutrition Status Survey (SSGBI) in 2019, the prevalence of stunting in Indonesia reached 27.7% out of 100,447 toddlers. This figure is still very high when compared to the WHO threshold of 20%. West Java ranks 23rd out of 35 provinces, in West Java alone there are 2.7 million toddlers or 29.9% affected by stunting and has decreased in 2021 to 24.5%.

The dominant factor influencing the incidence of stunting is parenting style of feeding (Permatasari, 2021)(Ramadhani & , BJ. Kandarina, 2019). Diet in toddlers plays an important role in the growth process, because food contains the nutrients needed, so if the diet in toddlers is not achieved properly, the growth of toddlers will also be disrupted. One of the accumulative processes of a lack of nutrient intake over a long period of time is stunting (Dhilon & Harahap, 2022)(Ekayanthi & Suryani, 2019)(Purwani et al., 2013).

Toddlers from mothers with poor feeding parenting have a 6 times higher risk of stunting than toddlers with good feeding parenting. Based on research conducted it was found that there was a significant relationship between parenting patterns and the incidence of stunting in toddlers. Toddler feeding patterns are efforts and ways for mothers to provide food to toddlers with the aim that the need for food is fulfilled, both in quantity and nutritional value (Nai & Renyoet, 2020)(Rachmawati et al., 2022).

RESEARCH METHOD

This study used an analytic correlation design of this research method to analyze the relationship between feeding patterns and the incidence of stunting using a cross sectional approach. The target population is the population that meets the sampling criteria and becomes the final target of the study (Nursalam, 2013). The population in this study were toddlers aged 0-24 months who suffered from stunting as many as 131 people. probability sampling technique was carried out, 98.68 using the Slovin formula. This research will be conducted at the Cicangkang Girang Primary Health Care, West Bandung Regency. Implementation of research activities in January - June 2022.

RESULTS AND DISCUSSIONS

Table 1. Distribution of feeding patterns in stunting toddlers in the Cicangkanggirang Primary Healthcare working area

Category	Frequency	Presentase (%)
Un right	59	53,6
right	51	46,4
Total	110	100,0

Based on table 4.1 above, the results show that more than half, namely 59 respondents (53.6%) have an inappropriate diet. And less than half, namely 51 respondents (46.4%) have the right diet.

Table 2. Distribution of stunting events in toddlers in the Cicangkanggirang Primary Health Care working area

Category	Frequncy	Presentase (%)
Very short	20	18,2
Short	90	81.8
Total	110	100,0

Based on table 2, it was found that most of the 90 respondents (81.8%) experienced stunting in the short category, and a small proportion, namely 20 respondents (18.2%) experienced stunting in the very short category.

Table 3. Relationship between feeding patterns and the incidence of stunting in toddlers in the Cicangkanggirang Primary Healthcare Working Area

Feeding patterns	Stunting				Total		OR (95%CI)	Nilai P
	Very SHort		Short					
	F	%	F	%	F	%		
uncorrect	17	28,8	42	71,2	59	100	6.476	
Coreect	3	5,9	48	94,1	51	100	(1,773-	0,002
Total	20	18,2	90	81,8	110	100	23,653)	

Based on table 3 above, the results show that toddlers who get an inappropriate diet are mostly 42 (71.2%) have a short stunting condition, a small portion of 17 (28.8%) have a very short stunting condition. *P value* 0,002 ≤ α (0,05), so it can be concluded that there is a relationship between feeding patterns and the incidence of stunting in toddlers in the Cicangkanggirang Health Center work area. The OR (Odd Ratio) result is 6.476, meaning that children with improper feeding patterns are 6 times more likely to experience stunting than children who get the right feeding pattern.

Overview of Feeding Patterns in Stunting Toddlers

Based on table 1 above, it was found that more than half of the respondents, namely 59 respondents (53.6%) had an inappropriate diet. And less than half, namely 51 respondents (46.4%) have the right diet. The dominant problem that arises in feeding patterns in toddlers aged 6-24 months is the type of food; on a balanced menu including rice, side dishes, vegetables, fruit, and milk with the lowest score compared to other items, on the amount of food the dominant problem is on the menu of animal or protein side dishes including meat, fish, eggs etc., and on the meal schedule the dominant problem is the feeding time which is more than 30 minutes long.

In this study more than half of the mothers gave an improper diet, an improper diet would be at risk of nutritional deficiencies. A healthy diet is a balanced diet with a variety of nutrients in sufficient and not excessive doses (Harahap et al., 2022). A healthy diet can be seen from 3, namely type, amount, and schedule. Meanwhile, a poor diet is a habit of consuming unhealthy daily food. A poor diet can risk the health of the body.

In this study, it was found that more than half of the respondents had an inappropriate diet. This can be influenced by several factors, namely economic factors, socio-cultural factors, parental education, family environment, and the age of the mother who is too young (Anita et al., 2015).

The results of interviews with mothers with inappropriate eating patterns, obtained information that inappropriate eating patterns are not due to the inability to provide meals with balanced nutrition, but many parents do not pay attention to growth and development. Parents only follow routine monitoring from health workers during posyandu activities. Malnutrition in children is caused by children not getting all the nutrients needed by the body in sufficient quantities, resulting in an imbalance between nutrient consumption and needs. Other factors are usually because they want to feed their children easily, do not want to bother and mothers work, so there are still mothers who provide inappropriate diets.

In this study it was found that mothers who were not right to provide food were mothers with less education, based on interviews that mothers in providing food were mostly those who did not provide the right diet, they only assumed that the important thing was that their babies could eat without paying attention to the nutritional balance needs of their children such as children. children are fed with meatball soup, instant noodles, crackers or other instant foods that are easily available.

Ignorance of mothers about feeding toddlers will result in errors in the selection of food ingredients, so that it will have an impact on errors in the application of diet in toddlers which can lead to malnutrition. However, this can be prevented if mothers are active in seeking information

and health workers are active in providing health information. Health information obtained by mothers can change the behavior of mothers to be more informed to choose nutritious food for toddlers.

Overview of the Incidence of Stunting in Toddlers

Based on table 2, the results show that most of them, namely 90 respondents (81.8%) experienced stunting in the short category, and a small proportion, namely 20 respondents (18.2%) experienced stunting in the very short category.

In this study, it was found that the stunting rate in the very short category was 18.2%, toddlers are categorized as having very short stunting if the standard deviation value is <3 SD. The impact of babies who are very short stunted will be more risky than babies who are stunted.

The impact of stunting is divided into two, namely the short-term impact of disruption of brain development, physical growth, intelligence, and metabolic disorders in the body. As for the long term, it is easy to get sick, the emergence of diabetes, heart and blood vessel diseases, obesity, cancer, stroke, disability in old age, and poor quality of work that makes productivity low (Kemenkes RI, 2016)

In this study, it was found that most respondents experienced stunting in the short category. This can be caused by several factors that can be linked, namely poverty, nutrition, especially diet, health, sanitation and the environment. This can be prevented if mothers have knowledge about stunting, with knowledge mothers will be more concerned about the quantity and quality of food nutrition intake needed to support child growth during pregnancy and after birth. And mothers will also be more concerned about children's health, sanitation and the environment in which children live so that the incidence of stunting can be avoide

Relationship between feeding patterns and the incidence of stunting in toddlers

Based on table 3 The results of the analysis with alternative chi-square testing, obtained a p value of $0.002 \leq \alpha$ (0.05), then Ho is rejected, so it can be concluded that there is a relationship between feeding patterns and the incidence of stunting in toddlers in the Cicangkanggirang Health Center working area.

This study shows the results that there is a relationship between feeding patterns and the incidence of stunting. This shows that it is in accordance with the theory which states that the direct cause of stunting is due to lack of nutritional fulfillment. The fulfillment of nutrients that are lacking in a long period of time affects the growth and development of toddlers because the nutrients contained in food affect the sustainability of growth and development.

This study also shows the results that respondents with the right diet can experience stunting. Based on the results of the questionnaire that has been filled out by respondents in this study, this is because most respondents rarely finish eating every meal, eating time is more than 30 minutes, lack of eating with animal side dishes 2-3 pieces every day and rarely mothers to make a food schedule for respondents, besides that based on the results of interviews there are several histories of infectious diseases, LBW, and environmental sanitation problems. environment. These things are one of the triggers for not fulfilling the nutrients needed by the body for the growth and development of toddlers.

Another study mentioned that LBW infants, after 2 months of age, experience growth faltering which indicates the risk of experiencing growth failure in the following period. At the age of 12 months, LBW infants do not reach the body length achieved by normal children. Growth faltering in LBW children lasts until the age of two years. Failure to grow and inadequate growth pursuit is a pathological condition that causes stunting in toddlers. (Darwin Nasution, Detty Siti Nurdiati, 2014). LBW toddlers have a higher susceptibility to infectious diseases, such as diarrhea and lower respiratory tract infections and an increased risk of complications including sleep apnea, jaundice, anemia, chronic lung disorders, fatigue, and loss of appetite compared to children with normal birth weight, resulting in suboptimal physical growth (Rahman et al., 2016)

Another cause of stunting is the occurrence of diseases caused by food hygiene and sanitation problems where Escherichia coli is an indicator of food contamination that can cause food borne diseases. Food that has been contaminated by bacteria after consumption usually causes symptoms such as vomiting, fever, abdominal pain, symptoms occur 4-12 hours which gives a direct impression on the intestinal lining and causes inflammation (Astarini, 2021)

In this study, it was concluded that there was a relationship between feeding patterns and the incidence of stunting in toddlers in the Cicangkanggirang Health Center working area. So that as a result of this, the body that needs nutrients to support growth cannot be fulfilled and causes the child to become stunted. To reduce the occurrence of this, mothers must know how to feed toddlers so that their nutrition is fulfilled. Maternal knowledge can make mothers more creative in feeding toddlers, so that the toddler's diet becomes appropriate and avoids the incidence of stunting.

CONCLUSION

Based on the results of research and discussion regarding the relationship between feeding patterns and the incidence of stunting in toddlers, it can be concluded that more than half, namely 59 respondents (53.6%) have an improper diet. Most of the 90 respondents (81.8%) experienced stunting in the short category. The results of the analysis obtained a p value of 0.002 ≤ α (0.05), namely there is a significant relationship between feeding patterns and the incidence of stunting.

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