

THE RELATIONSHIP BETWEEN FEEDING PATTERNS AND THE INCIDENCE OF STUNTING IN CHILDREN AGED 12-59 MONTHS AT THE CIUYAH VILLAGE POSYANDU, SAJIRA DISTRICT, LEBAK REGENCY IN 2023

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Abstract

Stunting in children is the result of failure to thrive at the age of toddlers. Malnutrition experienced in the First 1000 Days of Life (HPK) makes children more at risk for obstacles to physical growth and vulnerability of children to disease. The prevalence in Indonesia in the last 10 years shows that stunting is one of the biggest nutritional problems in toddlers. The purpose of the study was to determine the relationship between feeding patterns and the incidence of stunting in children aged 12-59 months at the Ciuyah Village Posyandu, Sajira District, Lebak Regency. This study used observational analytical research with a case control design approach. The population in this study was mothers who had children aged 12-59 months at the Ciuyah Village Posyandu, Sajira District. The respondents in this study were 82 respondents, consisting of 41 case samples (total sampling) and 41 control samples (simple random sampling). The independent variable in this study was feeding patterns. The dependent variable in this study is the incidence of stunting. Data were collected using questionnaires and children were measured in height using a stadiometer and converted into a standardized score (z-score). Data were analyzed using Chi-Square test with significance $\alpha=0.05$. The results showed a significant relationship between feeding patterns and the incidence of stunting in children aged 12-59 months with a p-value of 0.012 ($p = 0.012$). There needs to be an improvement in feeding patterns and promotion from nurses and health workers to provide good food for children.

Keywords: Children Aged 12-59 Months, Feeding Patterns, Stunting

Introduction

Chronic malnutrition in infants during the womb until the age of 2 years can lead to dwarfism, where the child becomes too short compared to his age (stunting). Stunting in children is the result of growth failure at the age of under five years. Malnutrition experienced in the Early 1000 Days of Life makes children more at risk for experiencing obstacles to physical growth and vulnerable to disease. Chronic malnutrition also causes cognitive development barriers so that the level of intelligence and productivity of children in the future will be affected. According to UNICEF, children who are stunted will usually have an IQ below that of children who are not stunted.

In the 2020-2024 RPJMN, the central government makes stunting a national priority with a significant achievement target of 24.4% in 2021 reduced to 14%. According to the 2016 Global Nutrition Report, the incidence of stunting in our country is in position 108 out of 132 countries. According to previous Global Nutrition records, Indonesia is reported to be one of 17 countries with double burden nutritional problems, on the one hand advantages but also disadvantages. Regionally, the stunting rate in our country is the second highest after Cambodia. In 2016, the Ministry of Health of the Republic of Indonesia reported a stunting prevalence of 29.0% in children under five based on

monitoring their nutritional status. At the same time, the incidence rate in individuals less than two years old reached 21.7%. According to the World Health Organization (WHO), public health problems arise when the incidence rate in children under the age of five reaches 20% or more.

In Indonesia, events that have occurred over the last decade show that stunting is a prominent nutritional problem in children aged five years and under. Based on Basic Health Research (Riskesdas) in 2018, there was a reduction in the incidence of stunting nationally by 6.4% in a period of 5 years. Specifically, this figure decreased from 37.2% in 2013 to 30.8% in 2018. Statistics from the Lebak District Health Service show that the projected prevalence of stunting in 2023 is 26.20%. Based on data from the Pajagan Community Health Center, in 2023 there were 260 toddlers or 16.87% of the total 1541 toddlers in the operational area of the Pajagan Community Health Center who experienced stunting. Among the 7 communities in the operational area of the Pajagan Community Health Center, Ciuyah Village has the highest prevalence of children experiencing stunting. These children have a Tuberculosis/Ulcer Standard Deviation ≤ -2 and are classified as very short or short.

The prevalence of stunting in the Pajagan area is mostly experienced at the age of 12-59 months. According to the nutrition officer at the Pajagan Community Health Center and 7 Ciuyah Village cadres, during the preliminary study interviews, information was obtained that the cause of stunting was probably the result of parents' lack of understanding about nutrition so that when mothers fed their children it was inappropriate or inaccurate. This is related to the type of food allocated to children and the quantity of nutritional intake that children receive is not sufficient for their needs. Until now there has been no research on the relationship between feeding patterns and the incidence of stunting in children aged 12-59 months in the Pajagan Community Health Center area, Sajira District, Lebak Regency, so it cannot be proven.

The problem of nutritional disorders in society is caused by multiple factors, including: poverty, low understanding of nutritional knowledge because it creates difficulties in selecting food ingredients with high quality nutritional value and difficulty determining the quality and quantity of nutritional intake according to age and activity (Riyadi, 2016). Children under the age of five experience rapid physical development so they require a higher nutritional intake compared to their body weight. Toddlers are the age group most vulnerable to experiencing malnutrition, as stated by Ambarwati (2015). Therefore, overcoming the problem of stunting around the Pajagan Community Health Center is an important thing to do. Related to the previous topic, there are other factors that contribute to the prevalence of stunting in children, including those related to diet. Therefore, researchers are interested in finding out the relationship between feeding practices and the prevalence of stunting in children aged 12-59 months at Posyandu in Ciuyah Village, Sajira District, Lebak Regency.

Method

This study used observational analytical methodology, with a case-control design approach to compare the case group with the control group. In this case, the group studied consisted of toddlers whose growth was stunted, while the comparison group consisted of toddlers who did not experience stunting. This research is retrospective, meaning it examines past events and collects data starting from the observed consequences. Next, the impact is attributed retroactively to the causes or variables underlying the impact. (Notoatmodjo, 2014). This research was carried out at the Ciuyah Village Posyandu which is the working area of the Pajagan Health Center, Sajira District, Lebak Regency from November to December 2023.

The sample for this study was children aged 12 to 59 months covering a total population of 325 children. According to data from the Pajagan Community Health Center, in Ciuyah Village there are 41 toddlers aged 12-59 months who suffer from stunting. Data was collected using a questionnaire regarding feeding patterns by filling it in directly by his mother after being given an explanation. The

data collection instrument in this study used the Child Feeding Questionnaire (CFQ) by (Camci, Bas, and Buyukkaragoz, 2014). The data analysis used is univariate analysis and bivariate analysis with the chi square test.

Result

The frequency distribution of respondents according to demographic characteristics is presented in the table, can be seen below:

Child Characteristics

Table 5.1. Frequency Distribution of Demographic Characteristics of Child Respondents Aged 12-59 Months at the Ciuyah Village Posyandu, Sajira District in 2023

No	Characteristics	Category	f	%
1	Age of Toddler	12-36 months	45	54,9
		37-59 months	37	45,1
		Total	82	100,0
2	Gender	Male	41	50,0
		Female	41	50,0
		Total	82	100,0
3	Birth Order	1	20	24,4
		2	24	29,3
		>2	38	46,3
		Total	82	100,0

Based on table 5.1 above, it can be seen that of the 82 respondents studied, the majority of the distribution of respondents according to the age of children is the age group of 12-36 months with a total of 45 people (54.9%), the same sex between men and women each as many as 41 people (50.0%), birth order is mostly the order of >2 as many as 38 people (46.3%).

Maternal Characteristics

Table 5.2. Frequency Distribution of Demographic Characteristics of Respondents of Mothers Under Fives in Posyandu Ciuyah Village, Sajira District in 2023

No Characteristics Category f %	
1 Mother's Age	<21 6 7,3
	21-35 52 63,4
	>35 24 29,3
Total	82 100,0
2 Mother's Education	Low 63 76,8
	High 19 23,2
Total	82 100,0
3 Number of children	>2 43 52,4
	2 23 28,0
	1 16 19,5
Total	82 100,0
4 Other toddler holdings	Yes 6 7,3
	No 76 92,7
Total	82 100,0

Based on table 5.2 above related to maternal characteristics, it can be seen that some respondents are mothers with the age group of 21-35 years, as many as 52 people (63.4%), the last

education of the majority of mothers is low (elementary and junior high) as many as 63 people (76.8%), most mothers have more than 2 children (52.4%) and do not have other toddlers 76 people (92.7%).

Family Characteristics

Table 5.3. Distribution of Demographic Characteristics of Family Respondents of Children Aged 12-59 Months in Posyandu Ciuyah Village, Sajira District in 2023

No Characteristics Category f %	
1 Family income	< UMK 57 69,5 > UMK 25 30,5
Total	82 100,0
2 Number of family members	Big (>6 org) 7 8,5 Medium (5-6 org) 33 40,2 little (<5 org) 42 51,2
Total	82 100,0

Based on table 5.3 above, it shows that most respondents have an income of <MSEs in Lebak Regency in 2023 as many as 57 families (69.5%) and the majority have a small family member, 42 families (51.2%).

Univariate Analysis

Table 5.4. Distribution of the Frequency of Stunting in Children Aged 12-59 Months in Posyandu Ciuyah Village, Sajira District in 2023

No.	Stunting Events	F	%
1.	<i>Stunting</i>	41	50,0
2.	<i>No Stunting</i>	41	50,0
Total		82	100,0

Based on table 5.4 above, it can be seen that of the 82 respondents studied, there are as many children who are stunted and not stunted, namely 41 respondents each (50%).

Tabel 5.5. Frequency Distribution of Feeding Patterns for Children Aged 12-59 Months at the Ciuyah Village Posyandu, Sajira District in 2023

No.	Feeding pattern	f	%
1.	Exactly	7	8,5
2.	Not Exactly	75	91,5
Total		82	100,0

Based on table 5.5 above, it can be seen that of the 82 respondents, the most respondents were 75 respondents (91.5%) and 7 respondents (8.5%) had improper eating patterns.

Bivariate Analysis

The study aims to determine the relationship between feeding patterns and the incidence of stunting in children aged 12-59 months at the Ciuyah Village Posyandu, Sajira District, Lebak Regency in 2023. In this study using the Chi-Square Test with the following analysis results:

Table 5.6. The Relationship between Feeding Patterns and the Incidence of Stunting in Posyandu Ciuyah Village, Sajira District in 2023.

Pegayungan Cayan Village, Sajidu District in 2020:			
Feeding pattern	Stunting Events		Total
	Stunting No Stunting		
	f %	f %	f %
Not Exactly			
Exactly	7	100,0	0 0,0
	34	45,3	41 54,7
			75 100,0
Total	41	52,6	37 47,4
	p-value = 0,012		

Based on table 5.6 above, it can be seen that of the 7 respondents whose feeding patterns were not right, all of them suffered from stunting (100%), while of the 75 respondents who had the right feeding pattern, most of their children were not stunted, namely 41 respondents (54.7%), while those who suffered from stunting were 34 people (45.3%).

The results of the crosstab between the variables of feeding patterns and the incidence of stunting in children aged 12-59 months showed that the results of the Chi-Square statistical test obtained a p value of 0.012 ($p\text{-value} < 0.05$) which means H_0 is rejected and H_a is accepted, meaning that there is a significant relationship between feeding patterns and the incidence of stunting in children aged 12-59 months.

Discussion

on the Distribution of the Frequency of Stunting Events in Children Aged 12-59 Months

In this study, out of all 82 respondents studied, the number of respondents who were stunted or not stunting was the same, namely 41 respondents each (50%). Stunting is a condition of growth failure in children under five years old (toddlers) due to chronic malnutrition and recurrent infections, especially in the period of the First Thousand Days of Life (HPK) from fetus to 23 months of age. Children can be said to be stunting if the height or length of the body is below -2 standard length or TB of children who should be at that age (National Team for the Acceleration of Stunting Prevention).

According to researchers, the high incidence of stunting is influenced by many factors that then result in chronic malnutrition. The main factors besides feeding patterns include infectious diseases and environmental health. Environmental sanitation conditions in several villages in Ciuyah Village are not very good. This increases the risk for diarrhea, gastrointestinal infections, helminthiasis and others.

Frequency Distribution of Feeding Patterns in Children Aged 12-59 Months

From the results of the study, it can be seen that of the 82 respondents, the majority of respondents whose feeding patterns are right as many as 75 children (91.5%) while those who have improper feeding patterns as many as 7 children (8.5%). Feeding pattern is a way to describe what and how much food is consumed daily by a person (Pratiwi, 2013). There are 3 components contained in the diet according to Sulistyoningsih (2012), namely: type of food, frequency of food and amount of food.

The results of this study are in accordance with the results of research conducted by Prakhasita (2018) which states in the results of his research on 85 respondents, most of the Proper Feeding Patterns were 60 people (70.6%). In the opinion of researchers from the results of the study showed most children have the right feeding pattern. This is in line with current conditions where the level of education, access to information about child nutrition and access to nutritious food sources are getting better.

According to Nadhiroh (2015), the level of maternal education also determines whether or not a mother is easy to absorb and understand the nutritional knowledge obtained. Education is needed so that someone, especially mothers, is more responsive to nutritional problems in the family and is expected to take appropriate action as soon as possible. Similarly, the level of family income, although most income is below MSE, if mothers have the skills to manage and allocate budgets for fulfilling family nutrition that does not have to be expensive, then it will be overcome.

The Relationship of Feeding Patterns with the Incidence of Stunting in Children Aged 12-59 Months

According to the results of this study, it is known that feeding patterns have a relationship with the incidence of stunting in children aged 12-59 months with a value of $p = 0.012$ ($p\text{-value} < 0.05$). The right feeding pattern is a feeding pattern that is in accordance with the type of food, the amount of food and the child's eating schedule. Based on this study, most respondents have applied the right feeding pattern to stunted and non-stunted children. According to research from Priyono et al. (2015), the nutritional status of stunted children is an accumulation of previous eating habits, so that feeding patterns on certain days cannot directly affect their nutritional status. The key to success in fulfilling child nutrition lies in the mother. Good eating habits depend heavily on the mother's knowledge and skills on how to arrange nutritionally qualified meals. Among the most rapid times in the phase of child growth and development occurs in the early years of life so that children must begin to be directed (Soetjiningsih, 2012).

In the field, many facts were found from respondents related to the feeding patterns of stunted children which required some kind of consultation and nutritional assistance from officers. Some children are accustomed to consuming rice and vegetable soup only or vice versa do not like vegetables and fruit. There are children who only like to eat noodles without other sources of nutrition because it is difficult to eat, and there are even children who do not eat rice until they are close to 4 years old. It is also recognized by some mothers who have difficulty providing a variety of foods eventually prefer to buy those that feel easier.

The variety of food consumption also determines the nutritional status of children aged 12-59 months. This is because children of this age are an age group that is vulnerable to nutrition so that the type of food given must be in accordance with the needs of their bodies and digestive abilities. To avoid children lacking nutrients, the selection of food types that vary and meet their nutritional value is very useful. From an early age, feeding patterns must be applied by providing varied foods and providing good meal time information to children. With such a healthy diet, the child will become accustomed to it.

Children's consumption patterns should be controlled by parents, especially mothers, such as excessive snacking habits in children. Every parent, especially mothers, needs to continue to learn to prepare nutritious food at home, starting from various types of food and amounts that suit the needs of each individual at home. The feeding schedule that is considered ideal is three main meals plus two nutritious meals as a distraction to complete the composition of daily balanced nutrition that is not obtained on the main food menu.

Conclusion

Based on the results of research conducted at the Ciuyah Village Posyandu, Sajira District, Lebak Regency. Which will be carried out in 2023 with 82 respondents, it was found that the distribution of the frequency of feeding patterns in children aged 12-59 months, most respondents have the right feeding pattern of 91.5%. There is no relationship between demographic data (toddler characteristics, maternal characteristics and family characteristics) with the incidence of stunting in toddlers aged 12-59 months at the Ciuyah Village Posyandu, Sajira District, Lebak Regency. There is a relationship between feeding patterns and the incidence of stunting in children aged 12-59 months in Posyandu, Ciuyah Village, Sajira District, Lebak Regency.

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