

# Parenting Patterns Of Providing Food, Picky Eaters And Food Diversity Against Stunting Incidents In The Working Area Of Kamaipura Health Center Sigi Regency

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## Article Info

### Keywords:

Stunting,  
Parenting Patterns Providing food,  
Picky Eaters,  
Food Diversity.

## ABSTRACT

Background: The World Health Organization (WHO) and UNICEF estimate the prevalence of stunting in the world at 23.3%, the prevalence of stunting in Indonesia at 21.5% and 26.4% in Central Sulawesi. Sigi Regency has the highest prevalence of stunting in 2022 at 27.2%. Kamaipura Community Health Center ranks highest at 43.6% in 2023 in Sigi Regency. The aim of this research is to analyze the relationship between parenting patterns of feeding, picky eaters and food diversity on the incidence of stunting in the Kamaipura Health Center working area, Sigi Regency. Method: This type of research is quantitative with an observational analytical approach using a cross sectional design . The population in this study were all toddlers aged 24-59 months totaling 219 toddlers with a sample of 58 stunted toddlers and The sampling technique uses simple random sampling. Research result: Based on the results of bivariate analysis using the Spearman test, all variables were related to the incidence of stunting with a value of ( $p < 0.05$ ) and based on multivariate analysis it was found that the food diversity variable contributed most to the incidence of stunting with the highest regression coefficient value ( $B = 0.215$ ). Conclusion: Most of the respondents had poor parenting patterns, were picky eaters and lacked food diversity. There is a relationship between parenting patterns, picky eaters and food diversity on the incidence of stunting and the variable that contributes most to the incidence of stunting is food diversity. Suggestion: For health workers at the Kamaipura Community Health Center, they will be more active in providing education, for the community they will pay more attention to children's nutritional intake and take part in education about nutrition, for future researchers they will add the characteristics of respondents and other variables to better support the research and prepare themselves better before going to the research site.

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## INTRODUCTION

Currently, Indonesia is still facing several health problems which are the main focus, namely nutritional problems where there is a high rate of stunting in children under five, this problem

greatly affects the quality of Human Resources (HR) which must be considered because it can interfere with growth and development (Milah & Zaqiah, 2023) . Stunting is a long-term lack of nutrition due to lack of it and food and infectious diseases in children which result in stunted growth and development with height and body length below standard (Perpres RI, 2021) .

The prevalence of stunting based on the results of the 2023 Indonesian Health Survey (SKI) reached 21.5% in Indonesia and 27.2% in Central Sulawesi (RI Ministry of Health, 2023) . Sigi Regency has the highest stunting prevalence in Central Sulawesi in 2022 at 36.8% and will decrease by 26.4% in 2023 (BPS Central Sulawesi, 2023) . Of the nineteen Community Health Centers in Sigi Regency, Kamaipura Community Health Center in 2023 will rank first with the highest number of stunting at 43.16% (Sigi Health Office, 2023) .

Based on interviews with 5 mothers of toddlers and one of the nutrition officers at the Kamaipura Community Health Center, the parenting style of providing food where parents of toddlers pay little attention to the message of balanced nutrition when giving food to their children follows what the family eats, gets their children used to snacks and gives threats to their children. when you don't want to eat. Apart from that, the behavior of picky eaters in toddlers is that they like to be picky about food so that their parents have difficulty when providing food, this is because children are bored with menus that are repeated almost every day, and there is a lack of variety in the food given because parents are not aware of providing food. their children eat a variety of foods because they don't want to bother processing various types of food.

Research (Syafei, Afriyani, & Apriani, 2023) shows that poor parenting practices contribute 34.7% to the incidence of stunting , this is because mothers do not provide adequate nutritional intake based on message nutrition balanced , getting children used to snacking on snacks and sweet drinks. (Pebruanty & Rokhaidah, 2022) explains that 22.7% of children who are picky eaters experience stunting , this is because almost all children are often picky about food and There are tendencies towards liked and disliked foods. (Ardianti & Sumarmi, 2023) that 53.5% of stunted toddlers have a lack of food diversity, this is due in large part to parents' income and the tendency to have foods they like and dislike which are obstacles for toddlers to be able to consume a variety of foods.

## METHOD

This research is an observational analytical study using a cross sectional approach . This research was carried out in the Kamaipura Public Health Center working area, Sigi Regency in June – July 2024. The population in this study were all 419 toddlers aged 24-59 months in the Kamaipura Public Health Center working area, Sigi Regency. The number of samples in this study was 58 stunted toddlers aged 24-59 months.

The sampling technique uses simple random sampling . This research uses primary data with a research instrument in the form of a questionnaire. The stunting variable is determined by the nutritional status of the Z-Score results based on PB/U, the food parenting variable uses a food giving parenting style questionnaire based on feeding rules , the picky eater

variable uses the CEBQ questionnaire and the food diversity variable is obtained from a 1x24 hour recall and entered into the IDDS questionnaire . Data analysis used the Spearman test and multiple linear regression test.

## RESULTS AND DISCUSSION

### Univariate Analysis Results

**Table 1.1** Distribution of Characteristics of Mothers and Toddlers Based on Age, Education, Occupation, Family Income, Gender, Age and Nutritional Status in the Kamaipura Public Health Center Working Area, Sigi Regency

Subject characteristics	Stunting	
	Frequency ( f )	Percentage ( % )
Maternal characteristics		
Age (years)		
20 – 29	32	55.2
30 – 39	18	31.0
40 – 49	8	13.8
Education		
Elementary school	7	12.1
Junior high school	10	17.2
Senior high school	41	70.7
Work		
IRT	56	96.6
Farmer	2	3,4
Family income		
< IDR 500,000	4	6.9
IDR 500,000-1,000,000	51	87.9
>1,000,000	3	5.2
Characteristics of toddlers		
Gender		
Man	38	65.5
Woman	20	34.5
After toddlers		
24-35 months	19	32.8
36-47 months	18	31.0
48-59 months	21	36.2
Nutritional status of toddlers		
Short	38	65.5
Very short	20	34.5

Source: Primary Data, 2024

Based on table 1.1, it shows that the majority of mothers aged 20-29 years old were 55.2% stunted, with 96.6% working as housewives, 70.7% having a high school education and 87% with a family income of 500,000-1,000,000. 9%. Apart from that, it was found that the majority of stunted toddlers were male, 65.5%, with an age of 48-59 months, 36.2% and a short nutritional status of 65.5%.

**Table 1.2** Distribution of Parenting Patterns in Providing Food, Picky Eaters and Food Diversity on Stunting Incidents in the Kamaipura Public Health Center Working

Area, Sigi Regency		
Subject characteristics	Frequency ( f )	Presentation (%)
Feeding parenting patterns		
Good	14	24.1
Not good	44	75.9
Picky eaters		
Not a picky eater	17	29.3
Picky eaters	41	70.7
Food diversity		
Not diverse	52	89.7
Various	6	10.3

Source: Primary Data, 2024

Based on table 1.2, it shows that the majority of stunted toddlers have poor parenting patterns of 75.9%, 70.7% are picky eaters and 89.7% do not consume a variety of foods.

**Table 1.3** Tests of Normality of Parenting Patterns in Feeding, Picky Eaters and Food Diversity

Variable	Kolmogorov-Smirnov
	Sig.
Feeding parenting patterns	,024
Picky eaters	,000
Food diversity	,000

Based on table 1.3, it can be seen that the significance result of the normality test for parenting patterns in feeding is 0.024 , picky eater 0.000 and food diversity is 0.000, all significance values are <0.05, which means the data is not normally distributed.

**Table 1.4** The Relationship between Parenting Patterns of Providing Food and the Incident of Stunting in the Working Area of the Kamaipura Public Health Center, Sigi

Regency				
Feeding parenting patterns	Nutritional status		r	p
	Stunting			
	f	%		
Good	14	24.1	0.284	0.031
Not good	44	75.9		

Source: Primary Data, 2024

Based on table 4.4, it was found that the majority of stunted toddlers had bad parenting patterns, as many as 44 toddlers (75.9%) with the results of bivariate correlation analysis ( $p < 0.05$ ) showing that there was a relationship between parenting patterns of feeding and the incidence of stunting in children. toddler. The results of the correlation coefficient ( $r$ ) 0.284 show that the direction of the relationship is positive with weak strength.

**Table 1.5** The Relationship between Picky Eaters and Stunting Incidents in the Kamaipura Public Health Center Working Area, Sigi Regency

Picky eaters	Nutritional status		r	p
	Stunting			
	f	%		
Not a picky eater	17	29.3	-0.414	0.001
Picky eaters	41	70.7		

Source: Primary Data, 2024

Based on table 1.5, it was found that 41 children with stunting were picky eaters (70.7%) with the results of bivariate correlation analysis ( $p < 0.05$ ) indicating that there was a relationship between picky eaters and the incidence of stunting in toddlers. The results of the correlation coefficient ( $r$ ) -0.284 show that the direction of the relationship is negative with moderate strength.

**Table 1.6** Relationship between Food Diversity and Events Stunting in the Kamaipura Public Health Center Work Area , Sigi Regency

Food diversity	Nutritional status		r	p
	Stunting			
	f	%		
Various	6	10.3	0.275	0.036
Not diverse	52	89.7		

Source: Primary Data, 2024

Based on table 1.6, it was found that 52 toddlers (89.7%) of stunted toddlers consumed a variety of foods, with the results of bivariate correlation analysis ( $p < 0.05$ ) indicating a relationship between food diversity and the incidence of stunting in toddlers. The results of the positive correlation coefficient ( $r$ ) 0.275 show that the direction of the relationship is positive with weak strength.

### Analysis Multivariate

**Table 1.7** Linear Regression Normality Test

Variable residuals	Kolmogorov-smirnov Z
parenting patterns of giving food, picky eaters , food diversity	Sig. 0.657

Source: Primary Data, 2024

Based on table 1.7, it can be seen that the significance result of the linear regression normality test is  $0.657 > 0.05$  which means the data is spread normally.

**Table 1.8.** Multicollinearity Test

Variable	Multicollinearity Test	
	Tolerance	VIF
Feeding parenting patterns	0.898	1,114
Picky eaters	0.945	1,058
Food diversity	0.927	1,079

Source: Primary Data, 2024

Based on table 1.8, it is found that the results of calculating tolerance values show that all independent variables have a value of  $>0.10$  and have a VIF value of  $<10$ , which means there is no correlation between the independent variables. This means that the independent variables used in this research do not have multicollinearity.

**Table 1.9** Heteroscedasticity Test

Variable	Heteroscedasticity test
	Sig
Feeding parenting patterns	0.097
Picky eaters	0.480
Food diversity	0.992

Source: Primary Data, 2024

Based on table 1.9, it is found that the significant value of the variables of parenting patterns of feeding, picky eaters and food diversity is  $>0.05$ . It can be said that the research data variables are homogeneous or pass the heteroscedasticity test

**Table 1.10** Multiple Linear Regression Test Results

Variable	Coefficient	t	Sig
Feeding parenting patterns	,007	1,192	,239
Picky eaters	-,012	-3,282	,002
Food diversity	,215	2,360	,022

Source: Primary Data, 2024

Based on table 1.10 of the three independent variables included in the regression, the food diversity variable influences the incidence of stunting because the highest regression coefficient value influences stunting at 0.215.

### **The Relationship between Parenting and Feeding Patterns on the Incident of Stunting**

The results of the Spearman test showed that there was a relationship between parenting patterns providing food and the incidence of stunting in the direction of a positive relationship with weak strength, which means that the higher the value of parenting patterns providing food or good parenting patterns, the higher the nutritional status so that the risk of stunting is reduced and vice versa, this is because the mother there is a lack of knowledge and understanding about good parenting patterns, apart from that it was found that there are several mothers' mindsets that assume that as long as their child has eaten and feels full without implementing good parenting patterns. For toddlers with a good parenting style,

giving food is because the mother already understands and has good knowledge and understanding in caring for her child, especially giving food.

This is in line with the study (Syafei, Afriyani, & Apriani, 2023) that There is a link between parenting patterns and stunting. Mothers' habits that often arise are due to a lack of knowledge about parenting patterns in giving food so that mothers do not understand how to give food properly fulfil need balanced nutrition (Wibowo et al ., 2023) . The same study (Mentari, 2020) states that the parenting style of providing food is related to stunting , where the mother's lack of experience and low knowledge about nutrition is less able to absorb and understand this, so the application of care given to her child when giving food is only what she knows, p. This is needed by mothers in parenting, especially when giving food.

### **The Relationship between Picky Eaters and Stunting Events**

The results of the Spearman test showed that there was a relationship between picky eaters and the incidence of stunting in a negative direction with moderate strength, which means that the lower the picky eater or non- picky eater value , the higher the nutritional status so that the risk of stunting is reduced and vice versa. This happens because most children in the picky eater category like to refuse certain foods and are not used to new foods. This is because toddlers are not used to consuming a variety of foods from the start of giving MP-ASI and almost every day toddlers are only given the same food with the same processing method, such as rice and eggs or rice and tofu and tempeh, so in the end they only get used to the food. the. Apart from that, from the results of interviews with respondents, almost all mothers have introduced sweet snacks such as packaged snacks, this makes children more aware and recognize the taste of foods that are often eaten which causes children to refuse when given new, healthier food because they feel that the food is not healthy. get used to their tongues.

In research (Rosyidah, Rahmawati, & Ramadhani, 2024) it is said that there is a correlation between picky eaters and the incidence of stunting , where children who are picky eaters lack nutritional intake because they do not consume a variety of foods and are at high risk of experiencing stunting . Children who are picky eaters like to consume snacks and sweet foods so they often refuse and don't want to eat when given healthy and nutritious food. This behavior can affect nutritional status which puts children at risk of stunting (Pebruanti & Rokhaidah, 2022) .

### **The Relationship between Food Diversity and Stunting**

The results of the Spearman test show that there is a relationship between food diversity and the incidence of stunting in the direction of a positive relationship with weak strength, which means that the higher the value of food diversity or the higher the diversity of food consumed, the higher the nutritional status so that the risk of stunting is reduced and vice versa. This happens because most toddlers only consume two or three food groups a day. This is because the average toddler only consumes rice and tofu or rice and eggs in a day with the addition of vegetable sauce, toddlers there rarely consume vegetables and fruit because they don't like the taste because they are not used to it and rarely consume fish and meat due to economic factors, so affecting the purchasing power of animal food sources. For

children who are stunted but consume a variety of foods because in a day they consume food groups such as cereals, vegetables and fruit, fish, eggs, nuts and seeds, as well as milk and processed products, researchers assume that there are other factors that cause children become stunted apart from food insecurity.

In research (Mumtaza, 2024) , toddlers who experience stunting do not consume a variety of foods. This is due to the tendency to consume one or two food groups a day, such as cereals and nuts, more than the food groups meat, fish and eggs, so that nutritional needs are not being sufficient with just one food group can result in toddlers being at risk of stunting . Study findings (Suryawan, Ningtyias, & Hidayati, 2022) state that there is a link between food diversity and stunting , low consumption of fish and meat food groups, offal, and a lack of liking for the taste of vegetables and fruit and some children do not drink milk and its products due to age. children over two and 2 years old, this is the cause of the high incidence of stunting

### **Variables that Contribute Most to Stunting Incidents**

From the research results, it was found that the variables were diversity and picky eaters contribute to the incidence of stunting and parenting patterns that provide food do not contribute to the incidence of stunting . Of the two contributing variables, food diversity contributes most to the incidence of stunting among toddlers in the Kamaipura Health Center working area, Sigi Regency. This is because the majority of toddlers do not consume a variety of foods and only consume under 4 food groups, low consumption of food sources of protein in toddlers such as fish and meat food groups, milk, and less consumption of vegetables and fruit so that nutrition is not met. in body . so that nutritional needs are obtained only from a few food groups such as cereals, eggs and nuts, which results in stunting .

Similarly, in the study findings (Tadele, Gebremedhin, Markos, & Fitsum, 2022) that food diversity contributes a value (B) of 0.217 to the incidence of stunting , this is because stunted toddlers consume less than 4 food groups, most of which depend on available food sources. limited such as corn, cassava and sorghum. Apart from that, only 10 children out of 139 children were given food from fruit and vegetables and only 10 out of 139 children were given food from animal sources, which resulted in nutritional needs being met only from a few food groups.

Apart from that, picky eaters also contribute to the incidence of stunting even though the regression coefficient value is lower than the food diversity variable. In research (Kutbi, 2021) based on a linear regression test with a food intake regression coefficient value (B) of <0.150 in children who are picky eaters , it shows that children who are picky eaters consume less vegetables and fruit, consume less food sources of protein and The amount of trans fat is higher, indicating an unhealthy diet due to following the dietary habits of parents who often consume unhealthy foods and consume less vegetables and fruit.

## **CONCLUSION**

Results study and arguments put forward by researchers, the conclusion was drawn, namely that there is a correlation between parenting patterns of feeding and stunting toddlers in the



working area of the Kamaipura Health Center, Sigi Regency. There is a correlation between picky eaters and stunted toddlers in the Kamaipura Health Center working area, Sigi Regency. There is a correlation between food diversity and stunting of toddlers in the Kamaipura Health Center working area, Sigi Regency. There is a variable that contributes the most, namely food diversity to the incidence of stunting among toddlers in the Kamaipura Health Center working area, Sigi Regency.

#### THANK-YOU NOTE

In preparing this research, I would like to thank my beloved parents Idris Paju and Nurlija lala, as well as Nurul Paju and Andi Walid who have supported me in every way during the research. Furthermore, I would like to thank Mrs. Ni Ketut Kariani, Mrs. Nurdiana and Mrs. Aldiza Intan Randani who have provided guidance, criticism and me in perfecting my research.

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