

THE RELATIONSHIP BETWEEN FOOD INSECURITY AND THE INCIDENCE OF STUNTING

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ABSTRACT

Stunting is a nutritional issue caused by prolonged insufficient nutrient intake, resulting in growth impairment in children, characterized by shorter height than the standard for their age. The causes of stunting are multidimensional, and one of them is food insecurity. Food insecurity is a condition where food needs are not adequately met at the regional, community, or household levels. According to data from the North Lombok District Health Office, there is a prevalence of 33.8% stunted toddlers in North Lombok District. Objective: This research aims to determine the relationship between food insecurity at the village level and the occurrence of stunting in children aged 24-59 months. Method: This study employed a cross-sectional study design with a total of 350 respondents selected using systemic random sampling method. Data on food insecurity were obtained from the North Lombok District Food Security Agency, while nutritional status data were obtained by measuring the length or height of toddlers using microtoice and infantometer, which were then compared with their age. The statistical test utilized in this study was the Chi-Square test. Results: The test on the relationship between food insecurity at the village level and the occurrence of stunting yielded a p-value of < 0.001 , OR = < 0.001 , 95% CI = 0.086-0.225. Conclusions There is a significant association between food insecurity at the village level and the occurrence of stunting among toddlers aged 24-59 months.

Keywords: food insecurity; incidence of stunting; stunting

INTRODUCTION

One of the chronic public health issues is stunting, where 3 out of 10 toddlers experience stunting (UNICEF, 2019). Stunting is a condition where a child's height is lower or shorter than the standard for their age (UNICEF, 2020). The impacts of stunting consist of short-term and long-term effects. Short-term impacts include failure to thrive, hindered cognitive and motor development, suboptimal physical growth, and metabolic disorders. Meanwhile, long-term impacts lead to decreased intellectual capacity in children, resulting in decreased productivity in adulthood and an increased risk of non-communicable diseases such as hypertension, diabetes mellitus, stroke, and heart disease. Generally, stunting affects cognitive and mental abilities, hindered growth, low economic productivity, and susceptibility to diseases (UNICEF, 2020). The causes of stunting include direct and indirect factors (UNICEF et al., 2020). Direct causes include inadequate nutrition intake and infectious diseases, while indirect factors comprise food insecurity, childcare practices, and health services and environmental health. These factors are influenced by other factors such as education, poverty, disparities, socio-cultural aspects, government policies, politics, etc. (UNICEF, 2015).

Food insecurity refers to the inadequate provision of food in regions, communities, or households. In contrast, food security is the condition where food needs are met for regions, communities, or households (BKP Kementan, 2020). Unmet food needs result in inadequate nutrient intake, leading to chronic malnutrition, including stunting. North Lombok Regency consists of several villages,

some of which are classified as food insecure, contributing to a high prevalence of stunting, which was 33.8% in 2020 (North Lombok Regency Regional Development Planning Agency, 2016).

METHOD

This study utilized a cross-sectional study design with 350 respondents selected using systemic random sampling. Data on food insecurity were obtained from the North Lombok Regency Food Security Agency, while nutritional status data were obtained by measuring the length or height of toddlers using microtoice and infantometer compared to their age. The Chi-Square test was employed for analysis.

RESULTS AND DISCUSSION

Table 1.
Respondent characteristics (n= 350)

Respondent characteristics	f	%
Age (years)		
2	72	20,6
3	130	37,1
4	148	42,3
Gender		
Male	172	49,1
Female	178	50,9

Table 2.
Distribution of Respondent Characteristics Based on Nutritional Status

Variabel	Nutritional Status			
	Non <i>Stunting</i>		<i>Stunting</i>	
	f	%	f	%
Gender				
Male	107	60,1	71	39,9
Female	111	64,5	61	35,5

Table 3.
Hubungan Kerawanan Pangan di Tingkat Desa dengan Kejadian *Stunting*

Variabel	Status Gizi				p-value
	Non <i>Stunting</i>		<i>Stunting</i>		
	f	%	f	%	
Food Insecurity at the village					
Food Insecurrity	50	35,7	90	64,3	<0,001
Food Secure	168	80	42	20	

In this study, the description of respondent characteristics includes age and gender, as shown in Table 1. The majority of respondents are 4 years old, with 148 toddlers (42.3%), and in terms of gender, females dominate with 178 (50.9%) respondents. Table 2 provides an overview of the distribution of respondent characteristics based on non-stunting and stunting. The majority of non-stunting toddlers are female, accounting for 64.5%, while the majority of stunting toddlers are male, at 39.9%.

In Table 3, after conducting a chi-square analysis, a p-value of <0.001 was obtained, indicating a relationship between food insecurity at the village level and the occurrence of stunting in toddlers

aged 24-59 months. This finding is consistent with research conducted by Fadzila and Tertiyus (2019), which found a relationship between household food security and the occurrence of stunting. Additionally, research by Paudel et al. (2021) states that there is a relationship between food insecurity and the occurrence of stunting in children under five years of age.

CONCLUSION

In conclusion, there is a relationship between village-level food insecurity and the occurrence of stunting among toddlers aged 24-59 months

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