

The Effect of Maternal Education and Knowledge on Stunting Incidence in Toddlers in Paya Baro Village, Meureubo District, West Aceh Regency

¹Darmawan, ²Susy Sriwahyuni, ³Fikri Faidul Jihad, ⁴Siti Maisyaroh Fitri Siregar

¹Teuku Umar University, Indonesia, darmawan@utu.ac.id

²Teuku Umar University, Indonesia, susysriwahyuni@utu.ac.id

³Teuku Umar University, Indonesia, fikrifaiduljihad@utu.ac.id

⁴Teuku Umar University, Indonesia, sitimaisarahfitris@utu.ac.id

Corresponding author: Darmawan, e-mail: darmawan@utu.ac.id

ABSTRACT

Maternal education and knowledge have an important role in influencing the incidence of stunting which is at risk from the mother's pregnancy to the first thousand days of life. The problem is the high stunting rate in Paya Baro village, which reaches 10.18%. The purpose of this study was to analyze the influence between education and knowledge variables on stunting events in Paya Baro Village, Meureubo District, West Aceh Regency. This research method uses an analytical quantitative method which is used to analyze the influence of education and knowledge of toddler mothers on stunting events with a sample of 50 pregnant women in Paya baro village, Meureubo District, West Aceh Regency and the results obtained were presented in table form. The results can be seen characteristics based on the education of pregnant women as much as (39.1%) not going to school (17.4%) elementary education (13%) junior high school education (13%) high school education (17.4%) undergraduates. Meanwhile, the knowledge of mothers with a good level of knowledge (34.5%) and a poor level of knowledge as much as (43.75). The education variables of pregnant women have a meaningful relationship with the incidence of stunting $p = \text{value} < 0.001$ and there is a meaningful influence between the knowledge of pregnant women on the incidence of stunting $p = \text{value} < 0.003$. Conclusion there is an influence of maternal education and knowledge on the incidence of stunting in toddlers in Paya Baro Village, Meureubo District, Aceh Regency having an increased risk of stunting problems due to low levels of education and poor knowledge can increase stunting in children. It is hoped that policymakers can improve stunting prevention programs through community empowerment.

ARTICLE INFORMATION

Submitted: 30/09/2022

Revised: 10/10/2022

Accepted: 25/10/2022

Published Online: 26/10/2022

Keywords:

Education,
Knowledge,
Mothers,
Toddlers,
Stunting

How to cite this article: Darmawan, Sriwahyuni, S., Jihad, F. F., & Siregar, S. M. (2022). The Effect of Maternal Education and Knowledge on Stunting Incidence in Toddlers in Paya Baro Village, Meureubo District, West Aceh Regency. *Journal of Nutrition Science*, 3(2), 37-40.

Introduction

The Organization Agency or known as the World Health Organization (WHO) presented data on the development of stunting increasing in low-income countries or developing countries, one of which is Indonesia as a country that still has quite severe nutritional problems characterized by the large number of malnutrition status in toddlers. Malnutrition is a state of nutritional status both in the short and long term which is characterized by the relationship of manutrisi with stunting problems due to the background of past nutritional status problems that are not sufficient so that they become chronic. According to (WHO) in 2021 said stunting is a problem in children, one of the most significant obstacles to human development, globally affecting around 162 million children under the age of 5 years. (World Health Organization, 2021).

The prevalence of stunting nationally reached 37.2% which has increased since 2010-2007 with

variations in figures of 35.6%-36.8% which shows that indonesia's child growth data that is not optimal is estimated at 8.9% of children suffering from stunting. The problem of stunting in Indonesia is recorded higher than other countries in Southeast Asia and Indonesia as the number five contributor in the world as evidenced by the 2013 Basic Health Research found that more than a third of children under the age of five were below average. Stunting can be measured as a nutritional status by paying attention to height or length of life and gender. The habit of not measuring the height or length of toddlers in society is a problem of prolonged stunting. This is the focal point in preventing stunting targets for improving nutrition in the world until 2025. (SDKI, 2013)

The causes of stunting can occur due to multidimensional factors and are not only caused by malnutrition problems experienced by mothers during pregnancy but can be related to low birth weight, infectious diseases, maternal knowledge

levels, maternal education levels, The impact can be an increase in morbidity, poor cognition ability, short stature, an increased risk of prinal and neonatal death, a decrease in productivity in adulthood and an increase in degenerative diseases. sanitation of the home environment and socioeconomic and cultural factors of the community. The influence of maternal education is one of the other factors that causes stunting in children. This statement can be shown from the results of research conducted by Husnaniyah D, et.al 2020, that maternal education has a close relationship with the incidence of stunting in children with a p.value of $0.005 < 0.05$. (Husnaniyah D, et.al, 2020)

Furthermore, in ramdhani A research et.al 2020 the results of the analysis obtained in her research that the level of maternal knowledge has a statistically meaningful relationship. Low maternal knowledge will affect mothers towards childcare because mothers are unable to understand the importance of qualified balanced nutrition so that children avoid stunting from an early age. Furthermore, in ramdhani A research et.al 2020 the results of the analysis obtained in her research that the level of maternal knowledge has a statistically meaningful relationship. Low maternal knowledge will affect mothers towards childcare because mothers are unable to understand the importance of qualified balanced nutrition so that children avoid stunting from an early age. The parenting and compassion of children begins with the selection of food to the presentation of food. If maternal education and knowledge are low in terms of balanced nutrition, sanitation of the home environment and other determinants that can affect stunting, then this will be a prolonged problem in solving the problem of stunting in Indonesia. (Riskasdas, 2018)

West Aceh is one of the districts located in the western part of Aceh province, Aceh is the province that contributes the highest number of stunting cases. Based on Basic Health Research in 2018 stunting in Aceh toddlers ranked third out of 34 provinces in Indonesia with 30.8% cases. The stunting rate in children under two years of age is 37.9% compared to the national average of 29.9%. Based on the Central Statistics Agency of West Aceh Regency in 2019-2020, there were 1,876 cases. (West Aceh Health Office, 2021)

The initial survey conducted by researchers in Paya Baro Village to 5 mothers who had toddlers got an overview of the background of higher education of 1 person and moderate education of 1 person and low education of 3 people. Knowledge possessed by 5 pregnant women related to the factors causing stunting and stunting prevention still has poor knowledge. So in this study, researchers are interested in conducting a study with the title "The Influence of Maternal Education and Knowledge on the Incidence of Stunting in Toddlers in Paya Baro Village, Meureubo District, West Aceh Regency.

Method

The research method used in this study is quantitative in an analytical nature with a cross-sectional design. The respondents in this study were mothers who had toddlers who lived in Paya Baro village, Meureubo District, West Aceh Regency, as many as 50 mothers of toddlers who were sampled in the study in Paya Baro village, Meureubo District, West Aceh Regency. The measurement of bound and free variables at the same time and is instantaneous in nature. Before starting the interview and filling out the questionnaire first of the respondents, the researcher provides an explanation regarding the purpose of the research carried out, the benefits and guarantees the confidentiality of the identity of the data provided. After that, the new researcher asks for informed consent, then conducts interviews, observations and measurements. The data analysis used is univariate and bivariate analysis.

Results

Respondents Characteristics

Table 1. Frequency distribution of respondents based on research variables

Variabel	Total	
	n	%
Incidence of stunting in toddlers		
Normal (-2 SD s/d 2 SD)	25	32.9
Short (-3 SD s/d <-2 SD)	36	47.4
Very short (<-3 SD)	15	19.7
Mother's age		
≤30 years old	40	52.6
>30 years old	36	47.4
Level of education		
Higher & secondary education	44	57.9
Low education	32	42.1
Knowledge level		
Well	33	43.4
Not enough	43	56.6

Based on Table 1, the univariate analysis explains that the proportion of stunting incidence in normal category toddlers (-2 elementary schools to 2 elementary schools) is 25 people (32.9%), short (-3 elementary schools to <-2 elementary schools) is 36 people (47.4%) and very short (<-3 elementary schools) is 15 people (19.7%). The proportion of age of mothers in the ≤30 category is 40 people (52.6%) and >30 years is 36 people (47.4%). The proportion of education levels in the higher and medium education category is 44 people (57.9%)

Table 2. Cross tabulation of independent variables with the incidence of stunting in toddlers

Variabel	Incidence of stunting in toddlers						Total	P	
	Normal		Short		Very Short				
	n	%	n	%	n	%			
Level of education									
Higher & secondary education	22	50.0	16	36.4	6	13.6	32	100	0.001
Low education	3	9.4	20	62.5	9	28.1	44	100	
Knowledge level									
Well	15	45.5	16	48.5	2	6.1	33	100	0.015
Not enough	10	23.3	20	46.5	13	30.2	43	100	

Table 2 shows all the free variables associated with the incidence of stunting in toddlers including: The level of education with a prevalence ratio (Pr) = 13.937 (p value = 0.001 < 0.05) means that respondents with higher and low education levels have a 13.9 times greater chance of stunting events in toddlers category normal (-2 elementary schools to 2 elementary schools) compared to the short or very short category and have a relationship between the incidence of stunting in toddlers and the level of education. The level of knowledge with a prevalence ratio (Pr) = 8.340 (p value = 0.015 < 0.05) means that respondents with a good knowledge level have an 8.3 times greater chance of stunting incidence in normal category toddlers (-2 elementary schools to 2 elementary schools)

Discussion

Maternal Education Level With Stunting Incidence in Children in Paya Baro Village, Meureubo District, West Aceh Regency.

The maternal education level in Paya Baro Village is 32.9% high and medium and the education level is low 42.1%. So the incidence of stunting that is often encountered in children aged 12-36 months occurs due to the low education of the mother. Stunting that occurs in children under five years old is not realized because the difference between stunted and normal children at that age cannot be recognized properly. So that in this study by measuring the level of maternal education can help the government in the success of reducing the stunting rate in 2019-2020 by 19% lowered with a target of 14%. The results of this study are supported by the results of research by Husnaniyah D, et al in 2020 showing the results that the level of education has a meaningful relationship with the incidence of stunting in chi The age of toddlers is a period of comfort in preparing the quality of human resources which can be seen from physical intelligence and intelligence, this must be helped from good nutrition so that it can help correct past nutritional problems. Children who are stunted at this time will have growth and development problems. Children with a p-value of 0.005<0.05. (Husnaniyah D, et.al 2020)

One of the influences of stunting is the level of maternal education. Mothers have full responsibility in managing the household, especially in food consumption and food serving. Therefore, the higher the level of education of housewives, the better their ability to make decisions in household consumption, especially to meet the nutritional needs of all family members. Safitri Research CA, Nindya TS. The year 2017 showed the results of a study conducted that mothers who have higher education have a relationship with the mother's knowledge level p = value 0.001<0.05 which atinya

that there is a meaningful relationship with the incidence of stunting in children.

The Level of Knowledge of Mothers with Stunting Incidence in Children in Paya Baro Village, Meureubo District, West Aceh Regency.

Based on the level of good knowledge of mothers 43.4% and poor knowledge 56.6%. The relationship of maternal knowledge has a meaningful relationship with the incidence of stunting. Knowledge is closely related to education, where it can be assumed that with higher education, the mother's knowledge will be wider while the mother's knowledge will be wider while the mother with poor knowledge does not guarantee that a mother does not have sufficient knowledge about the nutrition of her family. The existence of curiosity which can influence mothers in getting information about the right food to meet the nutritional needs of children.

The results used a chi square statistical test with a meaningfulness limit of $\alpha \leq 0.05$. With the results of the statistical test, a P-value of 0.015<0.05 was obtained. Which means H_0 is denied. concluded there is a relationship between parents' knowledge of seibang nutrition. Based on the research conducted. The results of this study are supported from the results of the study conducted by Rhamdhani A. et al. et.al in 2020 with the title of the relationship of maternal knowledge with stunting events using the literature review method. Article searches were carried out using the google scholar search engine as many as 89 journals that met the inclusion criteria related to the level of knowledge of mothers who have a role important in contributing to stunting data. Literature review research can show that 89 journals that conduct stunting research on average have a meaningful relationship with stunting events.

Conclusion

The level of maternal education has a very significant influence on the incidence of stunting in Paya Baro Village, Meureubo District, West Aceh Regency. The poor level of knowledge of toddler mothers has a significant influence on stunting in Paya Baro Village, Meureubo District, West Aceh Regency

Acknowledgement

It is hoped that policymakers can improve stunting prevention programs through community empowerment. To the community to be able to participate in the activities of the stunting eradication program at the posyandu.

References

Safitri CA, Nindya TS. 2017. The relationship between food security and diarrheal diseases

- with stunting in toddlers 13-48 months in Manyar Sabrangan Village. *Journal of Amerta Nutrition.*; Volume 1 Number 2. Pp :52– 61. doi:10.20473
- World Health Organization. 2021. Monitoring Health For The SDGs, Sustainable Development Goals. *World Health Statistics*. Retrieved 20 september 2022. World health statistics 2021 monitoring health for the SDGs, sustainable development goals (who.int).
- Profile of the Health Service. 2021. Stunting Report Data in West Aceh.
- Ramdhani A, Handayani H, Setiawan A. 2020. The Relationship Of Maternal Knowledge To Stunting Events Mother's Knowledge Relationship With Stunting Events. *Resource Development Towards a Civil Society with Local Wisdom*. National Seminar on Research and Community Service Results V 2020. ISBN: 978-602-6697-66-0
- Basic Health Research (Rikesdas). (2018). *Health Research and Development Agency of the Ministry of Indonesia in the year*. Accessed: 20 september 2022 from www.depkes.go.id
- World Health Organization. 2017. *The World Bank Joint Child Malnutrition Estimates*. Edition. The WHO-Unicef Agency team- the world bank joint child malnutrition estimates. Accessed: 20 July 2022. <http://www.who.int/nuthrowthdb/jme>.
- Basic Health Research. 2018. *Stranas Stunting, National Strategy for the Acceleration of Stunting Prevention*. Stranas Stunting - Stunting. Retrieved 20 September 2022
