

THE RELATIONSHIP BETWEEN AGE, HEIGHT, AND KNOWLEDGE LEVEL OF MOTHERS WITH THE INCIDENCE OF STUNTING IN TODDLERS

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Abstract

Stunting is a condition where a child's height is shorter than other children of the same age due to chronic malnutrition. Stunting is caused by age, height, mother's education level, mother's knowledge about nutrition, mother's work, family income, parenting patterns and so on. The purpose of this study was to determine the relationship between age, height, and level of maternal knowledge with the incidence of stunting in toddlers. This type of research is a descriptive method with a cross-sectional approach. This research was conducted on June 27 to July 4, 2023. Which was conducted at the Ikur Koto Health Center, Padang City. The population in this study were all mothers who had toddlers in the Ikur Koto Health Center Working Area as many as 849 people. Sampling using Multistage Random Sampling technique with slovin formula which amounted to 89 respondents. Data analysis used is univariate and bivariate analysis. The results showed that most respondents (64%) were at risk. Most respondents (94.4%) have a non-short body. Most of the respondents' knowledge level (44.9%) is not good. And most toddlers (94.4%) are not stunted. Statistical tests concluded that there was a relationship between age, height and level of maternal knowledge with the incidence of stunting in toddlers. It is hoped that health centers and other health facilities can pay attention and further optimize the provision of education and counseling about stunting, especially to further explain the prevention that can minimize the incidence of stunting

with direct counseling at home.

Keywords: *Mother's age, Height, Knowledge, Stunting, Toddlers*

Introduction

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Stunting is a very short body condition, seen by the standard standards of WHO-MGRS 2006 (World Health Organization-Multicentre Growth Reference Study). Stunting is a condition where a child's height is shorter than the height of other children in general who are (the same age) due to chronic malnutrition. Malnutrition occurs from infancy in early life after birth but only appears after the child is 2 years old (Saadah, 2020). Stunting is caused by many factors, namely maternal factors and infant factors. Maternal factors include age, height, mother's education level, mother's knowledge about nutrition, mother's occupation, family income, parenting style and so on. Meanwhile, infant factors include birth weight, gender, exclusive breastfeeding, adequate levels of zinc and iron, and a history of infectious diseases (Saputra, Sari and Desnita, 2023).

In the world from 2017 the prevalence of stunting is around 22.2% or as many as 150.8 million toddlers (The Global Nutrition Report, 2018). It decreased to 21.9% or 149 million toddlers and continued to decline until 2019 to 144 million toddlers or 21.3% (WHO, 2020). However, in 2020 the stunting rate increased by around 0.7% from the previous year to 22% or 149.2 million children under the age of 5 years were stunted (UNICEF, 2021).

In Indonesia, this 3-year stunting problem has the highest prevalence compared to other nutritional problems such as undernutrition, underweight, and fat. The prevalence of stunting toddlers has increased from 2016 which is 27.5% to 29.6% in 2017 (Ministry of Health RI, 2018). And it decreased in 2021 to 24.4%, but the figure is still at the threshold of the target set by the WHO of 20%. (WHO, 2020).

The prevalence of stunting in West Sumatera from 2021 of 23.3% increased to 25.2% in 2022. This makes West Sumatera ranked second on the island of Sumatra after

Aceh with a prevalence of 31.2% in 2022. West Sumatra was ranked 14th after North Maluku and Maluku at 26.1%. According to the 2024 RPJMN (National Medium-Term Development Plan), Indonesia has set a national target to reduce stunting by 14%, so that the prevalence of stunting in West Sumatra still needs to be reduced (Ministry of Health, 2018).

Based on data obtained from the Padang City Health Office in 2020, the number of stunting toddler (TB/U) coverage was 2,943 cases (7.6%) from 43,389 people. According to data from the Padang City Health Office in 2021, the Ikur Koto Health Center Working Area has the most stunting toddlers, which is 16% and is in the first place for Puskesmas with stunting in Padang City. followed by Puskesmas Anak Air at 15.5% and Puskesmas Seberang Padang at 15.3% (Dinkes, 2022).

The results of research Syarif, S, N. (2022) The Relationship of Maternal Factors with the Incidence of Stunting for Toddlers Aged 0-59 Months in the Kassi Health Center Area, Rappocini District. It was found that there was a significant relationship between the age of the mother during pregnancy and the incidence of stunting. This study also analyzed the relationship between maternal height and the incidence of stunting. It was found that there was a significant relationship between maternal height and the incidence of stunting. Research from Purnama, Hasanuddin, and Sulaeman. (2021) entitled The Relationship of Maternal Knowledge with the Incidence of Stunting in Toddlers Aged 12-59 Months, it was found that there was a relationship between maternal knowledge and the incidence of stunting in toddlers aged 12-59 months in the Working Area of the Lawawoi Health Center, Sidrap Regency.

Method

Method should be structured as follows:

1. Research design

The type of research in this study is a Descriptive method with a Cross Sectional approach which is an observational study to analyze variable data collected at a certain point in time looking at the relationship of variables, to find out "The Relationship Between Age, Height and Level of Maternal Knowledge with the Incidence of Stunting in Toddlers.

2. Setting and samples

This research has been conducted an initial survey on January 21, 2023. And the study was conducted from June 27 to July 4, 2023 at the Ikur Koto Health Center. The sample was 89 mothers with inclusion criteria (Mothers who have toddlers and are in posyandu cendrawasih 4, 9, and 10 working areas of the Ikur Koto Health Center, Mothers who are willing to be respondents, Mothers who live in the working area of the Ikur Koto Health Center). Exclusion Criteria (Mothers who can not read write, Mothers who refuse to fill out questionnaires, At the time of the study the mother was not in place).

3. Measurement and data collection

Researchers distributed questionnaires directly to respondents with their prior approval. While explaining directly to respondents about research procedures, research objectives, research benefits, research confidentiality, procedures for filling out questionnaires. The questionnaire contains questions related to biodata, including the age and height of mothers and toddlers. Respondents were asked to fill out the questionnaire independently for ± 20 minutes. Researchers check completeness.

4. Data analysis;

Univariate analysis was conducted to see the frequency distribution of each variable, namely the independent variable (Age, Height and Knowledge Level of the Mother) and the dependent variable (Stunting Incidence). Bivariate analysis was conducted to see the relationship between the independent variable (Age, Height and Knowledge Level of the Mother) and the dependent variable (Stunting Incidence), Data presented in the form of a cross table. Computerized data processing, Using chi square test. The meaning limit is used $\alpha=0.05$ and the degree of confidence is 95%.

Results

Table 1

The Relationship Maternal Age And The Incidence of Stunting in Toddlers

Maternal Age					Total		P-value
	Less		Normal				
Event Stunting	f	%	F	%	F	%	
Stunting	5	15.6	0	0.0	5	5.6	
Normal	27	84.4	57	100.0	84	94.4	0,002
Total	32	100.0	57	100.0	89	100.0	

There were (15.6%) respondents of at-risk age and had stunting toddlers. The results of the statistical test obtained a p value of (0.002) < a α value (0.05). The relationship between maternal age and the incidence of stunting in toddlers.

Table 2

The Relationship Maternal Height and The Incidence of Stunting in Toddlers

Maternal Height					Total		P-value
	Short		Usual				
Event Stunting	f	%	f	%	f	%	
Stunting	4	80.0	1	1.2	5	5.6	
Normal	1	20.0	83	98.8	84	94.4	0,000
Total	5	100.0	57	100.0	89	100.0	

There are (80%) respondents who are short and have stunted toddlers. The results of statistical tests obtained a p value of (0.000) < a value of α (0.05) concluded that there is a relationship between maternal height and the incidence of stunting in toddlers.

Table 3

The Relationship Maternal Knowledge and The Incidence of Stunting in Toddlers

<i>Maternal Knowledge</i>							<i>Total</i>		<i>P-value</i>
	<i>Less</i>		<i>Enough</i>		<i>Good</i>				
<i>Event Stunting</i>	f	%	f	%	f	%	f	%	
<i>Stunting</i>	5	12.5%	0	0.0%	0	0.0%	5	5.6%	

<i>Normal</i>	35	87.5%	39	100%	10	100%	84	94.4%	0,039
<i>Total</i>	40	100%	39	100%	10	100%	89	100%	

There were (12.5%) respondents who had poor knowledge and stunting toddlers. The results of the statistical test obtained a p value of (0.039) < a value of α (0.05) concluded that "There is a relationship between maternal knowledge and the incidence of stunting in toddlers.

Discussion

The Relationship Maternal Age And The Incidence of Stunting in Toddlers

The results of the statistical test obtained a p value of (0.002) < a α value (0.05). The relationship between maternal age and the incidence of stunting in toddlers. This means that there is a relationship between maternal age and the incidence of stunting in toddlers. Pregnant women aged < 20 years have rudimentary blood circulation of the reproductive organs (cervix and uterus) can occur disruption of the process of distribution of nutrients from the mother to the fetus she contains so that the needs of the fetus are not fulfilled. Pregnant women aged > 35 years begin to feel unbalanced food intake caused by decreased absorption of nutrients, besides also feeling a decrease in the immune system so that the risk of experiencing various diseases by the time the mother reaches the age of 35 years over. The results of this study are the same as the research conducted by (Sani. M. et al, 20219) entitled The relationship between maternal age during pregnancy and stunted in toddlers 24-59 months.

The Relationship Maternal Height and The Incidence of Stunting in Toddlers

The results of statistical tests obtained a p value of (0.000) < a value of α (0.05) concluded that there is a relationship between maternal height and the incidence of stunting in toddlers. The growth of children is influenced by the height of their parents. Genes in chromosomes carrying short traits cause short parental height will then pass on the short trait to their children. Generally, the child's height is inherited from the mother because if the mother has a short height can increase the risk of intrauterine growth failure so that there is a decrease in child growth and development. So that there is a decrease in child growth and development. Mothers who have a short height of ≤ 150 cm have a 30.8% higher risk of giving birth to stunted children (Nelli and Ramadhan,

2021). The results of this study are the same as the research conducted by (Fitriahadi. E, 2018) entitled The relationship between maternal height and the incidence of stunting in toddlers aged 24 -59 bulla. That the number of mothers with short height categories and having stunted children is 68.4%.

The Relationship Maternal Knowledge and The Incidence of Stunting in Toddlers

Knowledge results from knowing, and occurs after people sense a particular object. This sensing occurs through the five senses possessed by humans, namely the senses of sight, hearing, smell, taste, and touch. Knowledge or cognitive is a very important domain in shaping a person's actions (Notoatmodjo, 2018). The results of this study are the same as the research conducted by (Ramadhani, A, et al, 2020). The Relationship between Maternal Knowledge and the Incidence of Stunting. It shows that the level of knowledge of mothers about stunting is still lacking, and there is a relationship between maternal knowledge and the incidence of stunting. The cause of mothers' lack of knowledge about stunting is because not all mothers of toddlers make visits to Posyandu.

Limitation

Reducing the incidence of stunting needs to be reviewed family factors.

Conclusion

There is a relationship maternal age, height and the incidence of stunting in toddlers.

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