THE RELATIONSHIP BETWEEN MATERNAL KNOWLEDGE LEVEL AND THE INCIDENCE OF STUNTING IN TODDLERS AT SUKAMATRI HEALTH CENTER

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ABSTRACT

Stunting is a developmental disorder in children caused by malnutrition, recurrent infections, and inadequate psychosocial simulations. If a child has a height of more than -2 standard deviations of the median growth of the child, it is said to be stunted. The variables of this study are knowledge, maternal age, economic status. The purpose of this study was to determine the relationship between factors related to the incidence of stunting toddlers. The design of this study uses quantitative with cross-sectional research methods. The population of this study was mothers who had stunted toddlers totaling 488 people and the sample of this study was 83 respondents in the work area of the Sukamantri health center. The results of this study show a meaningful picture and relationship between maternal knowledge, mother's age and economic status with stunting events. The conclusion of this study concluded that there is a relationship between maternal knowledge and economic status and there is no relationship between maternal age and stunting events. It is hoped that health workers can provide education and information to the public, especially to mothers who have stunted toddlers either through counseling or during the implementation of posyandu, or using other information media besides that, it is hoped that they pay attention to the media and health promotion facilities, especially health promotion media. As well as further enhanced again in health promotion.



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1. INTRODUCTION

Toddlers are children aged 0-59 months, at this time characterized by a very rapid process of growth and development and accompanied by changes that require nutrients that are more in quantity with high quality. However, toddlers belong to a group that is prone to nutrition and easily suffer from nutritional disorders due to lack of food needed. Food consumption plays an important role in the physical growth and intelligence of children so that food consumption has a major effect on the nutritional status of children to achieve physical growth and intelligence of children (Ariani, 2017).

According to the World Health Organization (WHO), stunting is a developmental disorder in children caused by poor nutrition, repeated infections, and inadequate psychosocial simulation. If a child has a height of more than -2 standard deviations of the child growth median set by WHO, then he is said to be stunted. The problem of stunting in Indonesia is a serious threat that requires proper handling. Based on data from the Indonesian Toddler Nutrition Status Survey (SSGBI) in 2019, the prevalence of stunting in Indonesia reached

27.7%. This means that about one in four children under five (more than eight million children) in Indonesia are stunted. This figure is still very high when compared to the threshold set by WHO, which is 20%. (WHO, 2021).

In 2020, globally 149.2 million children under the age of 5 were stunted. More than half of the world's stunted toddlers or around 83.6 million children come from Asia (54%) while more than a third (40%) come from Africa. (WHO, 2020)

In an effort to tackle stunting in Indonesia, the government itself has targeted the Stunting Reduction Program to 14% by 2024. Meeting this target is a big challenge for the government and the people of Indonesia in the midst of this pandemic. Moreover, activities at the Integrated Service Post (Posyandu) are not maximized at this time. In fact, Posyandu is the main milestone for monitoring the growth and development of toddlers in a smaller area. In addition, the economic conditions in Indonesia during the pandemic are not good. In the midst of increasing poverty and unemployment, it cannot be denied that an increase in the prevalence of stunting in Indonesia is possible. Family economic factors are closely related to the occurrence of stunting in children. This is because a person's economic condition affects the nutritional intake and nutrients they get. In Indonesia itself, access to balanced nutritious food is not evenly distributed. Even though the main factor in stunting is the lack of nutritional intake of children in the first 1000 days of life (HPK). (ITS Campus, 2021)

Puskesmas is a facility that can support the realization of health service delivery, namely through the Community Health Center The general objective of health services through health centers in accordance with the Minister of Health Regulation Number 75 of 2014 concerning Puskesmas is for the implementation of quality, affordable public health efforts and community participation. Puskesmas is also one of the means of providing health services closest to the community. (Yusuf Hariyoko, p: 170, 2021).

Stunting is a chronic malnutrition problem caused by a lack of nutritional intake over a long period of time, which causes future problems in achieving optimal physical and cognitive development. Stunted children have a lower Intelligence Quotient (IQ) than the average IQ of normal children. (Indonesian Ministry of Health, 2018). West Java Province has the highest number of target districts/cities prioritized for stunting intervention, namely 13 districts/cities. West Java Province has several factors that influence the incidence of stunting, one of which is the highest stunting in Indonesia. The prevalence of stunting in West Java Province has decreased from 32.5% in 2018 to 24.5% in 2021. (Ministry of Health, 2018)

In the Sumedang Region, it was recorded that in 2021 the stunting rate increased by 3.28% from 2019, which is around 8.7%, there are 9,044 or 12.5% of children spread across 26 districts throughout the district and Sumedang experiencing stunting. Based on data from the Conggeang Health Center, the results of the Toddler Weighing Month (BPB) at BADUTA (Two-Year-Old Babies) / 0-23 months in February 2021, the number of children according to nutritional status according to BB / U starts from very underweight 1.1%, underweight 6.2%, risk of overweight 9%. According to the nutritional status of TB/U, the first very short amounted to 1.7%, short 5.1%. And according to TB/BB nutritional status, undernutrition amounted to 2.8%. (Sumedang, 2020)

Based on the data from the report at the Sukamantri Health Center, the stunting data in 2021 was 11.9%, in February 2022 the stunting data was 12.3%. According to a survey of nutrition officers at the Sukamantri Health Center, this occurred due to lack of knowledge, maternal age and economic status. And the results of the data show an increase of 0.4%. (Sukamantri Health Center Report). Based on the above background, the researcher is interested in conducting research on "Factors Associated with the Incidence of Toddler Stunting in the Sukamantri Health Center Working Area".

2. METHOD

The type of research used in this study is quantitative, quantitative research according to Sugiyono (2017), is a research method based on the philosophy of positivism, as a scientific or scientific method because it has fulfilled scientific rules concretely or empirically, objectively, measurably, rationally, and systematically. Quantitative methods aim to test predetermined hypotheses that are used to research on certain populations and samples, collect data using research instruments, and analyze data that is quantitative or statistical.

According to Nursalam (2017), the cross sectional approach is one of the research designs, namely by making measurements or observations in this case to find the relationship between the independent variable and the dependent variable and taken at the same time. This study was conducted in the work area of the Sukamantri Health Center, Sumedang Regency in 2022. In research, population is defined as the group of subjects to be subjected to generalization of research results. (Badriah 2019). As a population, the subject group must have characteristics or characteristics

which distinguishes it from other subject groups. These characteristics can include, location characteristics, individual characteristics, or also certain character traits. The population in this study amounted to 448 people.

The population in this study amounted to 488 toddlers from 5 villages in the Sukamantri puskesmas working area consisting of Sukamantri Village 128 people, Tanjungmekar Village 104 people, Cigentur Village 64 people, Cipanas Village 106 people and Gunturmekar Village 86 people. If the population in this study is 488 people, while the desired error rate is 0.1%, then the number of samples to be taken is 83 respondents using simple random sampling technique. In this study to determine the relationship between knowledge and the incidence of stunting in toddlers using the chi square correlation test, with a level of significance $\alpha = 0.5$ means that there is a significant relationship between the two variables, then the hypothesis is accepted.

3. RESULTS AND DISCUSSION

3.1. Results

3.1.1 Univariate Analysis

In Univariate analysis, the frequency distribution of each variable will be displayed, both independent variables and dependent variables, while the results of univariate analysis are described as follows:

1. eDistribution of Frequency of Respondents' Knowledge in the Occurrence of Toddler Stunting in the Sukamantri Health Center Working Area

Table 1
Frequency Distribution of Respondents' Knowledge in the Prevention of Toddler Stunting in the Sukamantri Health Center Working Area

Category	Frequency (F)	Percentage %
Good	41	49.40 %
Simply	27	32.53 %
Less	15	18.07 %

Based on table 1, it shows that the level of knowledge in the incidence of stunting in the Sukamantri Health Center Working Area, the majority of respondents have good knowledge as many as 41 respondents (49.40%).

2. Frequency Distribution of Stunting Events Respondents in the Incidence of Stunting Toddlers in the Sukamantri Health Center Working Area

Table 2
Frequency Distribution of Stunting Events Respondents in the Incidence of Stunting Toddlers in the Sukamantri Health Center Working Area

Category	Frequency (F)	Percentage %		
Short	30	36,1 %		
Very Short	53	56,9%		
TOTAL	83	100 %		

Based on Table 2, it shows that the level of stunting in the Sukamantri Health Center Working Area, the majority of respondents have very short stunting as many as 53 respondents (56.9%).

3. Relationship between Knowledge and the Incidence of Stunting in the Sukamantri Health Center Working Area

Table 3
Relationship between Knowledge and the Incidence of Stunting in the Sukamantri Health Center Working Area

Knowledge	Short		Very Short		Total		P- Value
	N		N	%	N	%	0,000
Don't know	7	46,6	8	53,4	15	100	
Know	26	38,2	42	67,8	68	100	
Total	33	39,7	50	60,3	83	100	

Based on table 3, it explains that there is a relationship between knowledge and the incidence of stunting in the Sukamantri Health Center Working Area. It was found that respondents with knowledge did not know as many as 8 respondents (53.4%), and respondents with knowledge knew as many as 42 respondents (67.8%) From the statistical calculation, it was found that the p value was 0.000 with an alpha value = 0.05, meaning that the p value had a relationship between knowledge and the level of stunting in the Sukamantri Health Center Working Area in 2022.

3.2 Discussion

Based on table 1 shows that the level of knowledge in the incidence of stunting toddlers in the working area of the Sukamantri Health Center, the majority of respondents have good knowledge as many as 41 respondents (49.40%). Knowledge is one of the factors that is very important for the formation of a person's actions. Nutrition knowledge based on understanding will foster a positive attitude in stunting prevention efforts with the cooperation of the health team carried out through specific nutrition interventions to overcome nutritional problems of children aged 0-23 months by providing nutrition counseling to individuals and families can help to recognize nutritional health problems and help individuals and families solve their problems so that behavioral changes occur to be able to implement behavior change according to Ramayulis, et al (2018) Knowledge or cognitive is a very important domain for the formation of a person's actions because from his experience and research it turns out that it is based on knowledge that will be more lasting than those that are not based on knowledge according to Notoatmodjo (2012).

The rellevant research that shows other research was conducted by Zogara AU (2020) entitled "Factors associated with the incidence of stunting in toddlers" It can be seen that mothers who have stunting toddlers have more knowledge of low nutrition (66.2%). Meanwhile, mothers who have toddlers who are not stunted have more knowledge of good nutrition (60.8%). In this study, more stunted toddlers had family members> 4 people (59.5%). Because it is said that more stunted toddlers in children will have an impact on metabolic disorders, low immunity and physical size of the body which is not optimal later.

In this study, the researcher assumes that good knowledge is not enough to make mothers prevent stunting due to the respondent's lack of trust or belief in stunting. There are still those who have good knowledge but do not prevent stunting, which is proven that their children are stunted. This is due to the lack of motivation or support from the mother herself, even the lack of knowledge of mothers in preventing stunting from the results of the questionnaire found that mothers who do not prevent stunting early on in their children feel no need to prevent it. A number of respondents with good knowledge, the role of mothers is very influential in preventing stunting.

Based on Table 2, it shows that the incidence of stunting in the Sukamantri Health Center Working Area, the majority of respondents had very short stunting as many as 53 respondents (56.9%). Stunting is a condition of growth failure in children under five years old (infants under 5 years old) as a result of chronic malnutrition so that children are too short for their age. Malnutrition occurs since the baby in the womb in the early period after the baby is born, however, the stunting condition only appears after the baby is 2 years old. Short (stunded) and very important (survey stunded) toddlers are toddlers with body length (PB / U) and height (TB / U) according to general compared to WHO-MGRS standard standards in 2006).

This is in line with Kinanti Rahmadita's research (This is in line with Kinanti Rahmadita's research (2020) on the problem of stunting and its prevention. Because the prevention of stunting can be done by improving nutritional intake in pregnant women and toddlers and making preventive efforts to catch diseases in toddlers such as diarrhea, worms, etc. Fulfillment of nutritional needs for pregnant women. The problem of stunting is one of the nutritional problems that is the focus of the Government of Indonesia, Stunting is a

nutritional status based on the PB / U or TB / U index where in the anthropometric standard of child nutritional status assessment, the measurement results are at the threshold (Z-Score) <-2 SD up to -3 SD (short) and <-3 SD (very short).

So, this researcher assumes that the incidence of stunting can result in reduced growth in children 2-under 2 years old. Therefore the problem of stunting is a public health problem associated with an increased risk of morbidity, mortality and obstacles to growth both motor and mental.

Based on the results of the Chi Square test with the degree of confidence used 95% and 0.05, it was found that the P value was 0.000 where 0.000> 0.05, which means that the null hypothesis (H1) is accepted or statistically there is a significant relationship between knowledge and the incidence of stunting in the Sukamantri Health Center Region in 2022. Knowledge or cognitive is a very important domain for the formation of a person's actions because from his experience and research it turns out that it is based on knowledge that will be more lasting than those that are not based on knowledge according to Notoatmodjo (2012).

The relevant research that shows other research was conducted by Zogara AU (2020) entitled "Factors associated with the incidence of stunting in toddlers" It can be seen that mothers who have stunted toddlers have more knowledge of low nutrition (66.2%). Meanwhile, mothers who have toddlers who are not stunted have more knowledge of good nutrition (60.8%). In this study, more stunted toddlers had >4 family members (59.5%). Because it is said that more toddlers are stunted, stunting in children will have an impact on metabolic disorders, low immunity and physical size of the body which is not optimal later. Researchers assume that knowledge has an effect on the incidence of stunting. Because the lower the knowledge, the higher the stunting rate is seen from child parenting and nutritious food provision. And as for the impact of stunting, namely cognitive impairment or low thinking ability so that children are difficult to focus on learning and are more susceptible to disease.

4. CONCLUSION

Based on the results of the research and discussion described in the previous chapters, the conclusions that can be drawn from this research are:

- 1. The knowledge of respondents in the good category was 41 respondents (49.40%).
- 2. Overview of StuntingThere were 53 (56.9%) respondents in the very short category.
- 3. There is a relationship between knowledge of the incidence of stunting in the Sukamantri health center area with a P value of 0.000.

REFERENCES

Agustia, A. (2020). Factors Associated with the Incidence of Stunting in Toddlers in the Pantai Cermin Health Center Working Area in 2020.

Ariani, 2017 Toddlers aged 0-59 MONTHS repository.pkr.ac.id/1049/7/chapter II theory review.pdf.

Daeli, D. K. (2019). The Relationship of Toddler Characteristics (Sex, Birth Weight) and Maternal Height with the Incidence of Stunting in Children Aged 6- 23 Months in the Jati Makmur Health Center Working Area, North Binjai.

Hidayat, A. N., & Ismawati, I. (2019). Factors of Stunting Incidence in Toddlers in the Kramatwatu UPT PUSKESMAS Work Area, Serang Regency. ssJournal BIMTAS: Umtas Midwifery Journal, 3(1), 28-35.

INDRA BUDI ANTARI, L. U. H. (2020). The Relationship between Parenting Patterns and the Incidence of Stunting in Toddlers Aged 24-59 Months (Doctoral dissertation, Denpasar Polytechnic).

Ministry of Health RI. 2010. Decree of the Minister of Health of the Republic of Indonesia. NUMBER: 1999/MENKES/SK/XII/2010 on Anthropometric Standards for Assessment of Child Nutrition Status. Jakarta: Indonesian Ministry of Health.

Ministry of Health RI. 2018. Riskesdas 2018 Report. Jakarta: Indonesian Ministry of Health. Ministry of Health. 2018. The situation of stunting in Indonesia. Jakarta: Ministry of Health. Puskesmas Report 2021-2022.

Minister of Health number 1995/MENKES/SK/XII Anthropometric Standards for Child Nutrition Status Assessment. Year 2010

Indonesian Minister of Health. 2020. Categories and Thresholds of Toddler Nutrition Status Based on the Index. Minister of Health 2020

Indonesian Minister of Health. 2020. Category and Threshold of Toddler Nutrition Status Based on Index. Minister of Health 2020.

Ngaisah, S., & Nurochim, N. (2018). Assistance in analyzing the situation of high stunting areas. JMM

- (Jurnal Masyarakat Mandiri), 2(1), 71-76.
- Ni'mah, K., & Nadhiroh, S. R. (2015). Factors associated with the incidence of stunting in toddlers. Indonesian Nutrition Media, 10(1), 13-19.
- Raharjo, K., & Mulyoto, M. (2016). The Effect of Health Counseling on Clean and Healthy Living Behavior (PHBS) in terms of Socio-Economic Status (Experimental Study on DIII Nursing Program Students of Bhakti Mulia Sukoharjo Poltekkes). IJMS-Indonesian Journal on Medical Science, 3(2).
- Rahma, W. H. A. (2020). CHARACTERISTIC FINDINGS OF MOTHERS WHO HAVE STUNTING CHILDREN IN THE KEBONHARJO VILLAGE OF THE SAMIGALUH II PUSKESMAS IN 2020 (Doctoral dissertation, Poltekkes Kemenkes Yogyakarta).
- Sriyanti, T., Sayekti, E. S., & Kholida, D. (2017). THE RELATIONSHIP BETWEEN FAMILY NUTRITION AWARENESS (KADARZI) AND STUNTING IN TODDLERS AGED 0-24 MONTHS IN THE WORKING AREA OF SINGOTRUNAN HEALTH CENTER, BANYUWANGI DISTRICT. Healthy, 5(2), 56-71.
- Sulistianingsih, A., & Sari, R. (2018). Exclusive breastfeeding and birth weight influence stunting in toddlers 2-5 years old in Pesawaran Regency. Indonesian Journal of Clinical Nutrition, 15(2), 45.
- Sulistyawati, A. (2018). Factors associated with the incidence of stunting in toddlers. Journal of Midwifery Science, 5(1), 21-30.
- WHO, 2021. developmental disorders in children caused by poor nutrition, recurrent infections, and inadequate psychosocial simulation.