



The Correlation between Mother's Knowledge Levels of Healthy Food with Stunting Cases in Children aged 2-5 Years

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ABSTRACT

Introduction: Stunting is a condition of growth delay among children under five as a result of chronic malnutrition in their first 1,000 days of life. The prevalence of stunting in Indonesia is still above 20%. The objective of this study was to determine the correlation between mother's knowledge of healthy food with Stunting case among children. **Methods:** The research design used cross sectional, and sixty nine (69) respondents were recruited by Proportionate Stratified Random Sampling technique. Data were collected using questionnaire and height measurements using microtoice (height measuring devices), infantometer (body length measuring instrument) with a z-score table as a reference. This questionnaire has been tested for its validity and reliability. Data were analyzed with Spearman Rank test **Results:** the results of this study found that mothers with less knowledge were dominant of having stunting children, mother's knowledge about healthy food was closely correlated with the cases of stunting in children under five ($p = 0,000$), **Discussion:** The conclusion of this study shows, the more healthy food knowledge mothers have, the smaller case of stunting can occur. It is expected that the community health centers will provide health education on nutritious food on a regular basis to increase the knowledge of mothers and families.

Keywords: Knowledge, Healthy Food, Stunting

I. INTRODUCTION (HEADING 1)

Indonesia's health development in the 2015-2019 period is focused on four priority programs, namely reducing maternal and infant mortality, reducing the prevalence of stunting, controlling infectious diseases and controlling non-communicable diseases. Efforts to improve the nutritional status of the community, including reducing the prevalence of stunting, are one of the national development priorities listed in the main targets of the 2015-2019 Mid-Term Development Plan (Ministry of Health, 2016).

Problems in children who experience malnutrition or malnutrition for a long time will cause problems with growth and development or failure to thrive. Stunting occurs when the fetus is still in the womb and only appears when the child is 2 years old. Stunting is identified by comparing the height of a child with the standard height of the child in the normal population for the same age and sex. Children are said to be short (stunting) if their height is below -2 SD of the 2005 WHO standard. The height/age indicator (TB / U) gives an indication of chronic nutritional problems as a result of long-standing conditions, for example: poverty, healthy living habits and poor parenting/feeding patterns from birth which results in children becoming short [1].



According to WHO, the prevalence of short children under five becomes a public health problem if the prevalence is 20% or more, because the percentage of stunting under five in Indonesia is still high and is a health problem that must be overcome. Compared to several neighboring countries, the prevalence of stunting under five in Indonesia (37.2%) is also the highest compared to Myanmar (35%), Vietnam (23%), Malaysia (17%), Thailand (16%) and Singapore (4%) [2].

In Indonesia, based on the results of Basic Health Research (Riskesdas) in 2013, there were 37.2% of children under five who were stunted. It is known that from this percentage, 19.2% of children are short and 18.0% are very short. The prevalence of stunting has increased compared to the 2010 Riskesdas, which was 35.6%. The highest percentage in 2013 was in the Provinces of East Nusa Tenggara (51.7%), West Sulawesi (48.0%), and West Nusa Tenggara (45.3%) while the lowest percentage was in the Province of Riau Islands (26.3%). DI Yogyakarta (27.2%) and DKI Jakarta (27.5%). In 2015 the Ministry of Health implemented Nutritional Status Monitoring (PSG). According to the 2015 PSG results, 29% of Indonesian children under five are in the short category, with the highest percentages also in the Provinces of East Nusa Tenggara and West Sulawesi [2].

In Bali Province, based on the results of Monitoring of Nutritional Status (PSG), it shows a percentage of 20.6% of children under five are short, the translation of these results is 15.1% short and 5.5% very short [3]. Based on the results of the PSG in Bali Province in 2015-2017, it shows that the highest percentage in 2017 of the incidence of short toddlers is Buleleng Regency (28.9%), Bangli Regency (28.4%) and Jembrana Regency (25.1%) while the lowest percentage are Denpasar City (9.6%), Badung Regency (14.8%) and Tabanan (16.2%) [3].

Food is a substance which when eaten, digested and absorbed will produce at least one

kind of nutrient. Many people believe that if you consume enough nutritious and sufficiently varied foods, the body's need for vitamins and minerals will also be fulfilled so that they can live a healthy life. Providing children with a healthy and nutritious diet has many benefits that continue into adolescence and adulthood. Good growth, brain development, protection of health and immunity, protection against adult diseases and the development of life-long good eating habits, are all obtained from a balanced and nutritious diet [4].

The mother who is closest to the child must have knowledge of nutrition. Mother's knowledge about healthy food affects the type of food consumed. This mother's knowledge is also one of the causes of malnutrition among toddlers. The minimum knowledge that a mother must know is about nutritional needs (both during pregnancy and after childbirth), how to feed, the types of food that are good for children according to their age, so that they will ensure that the child can grow and develop optimally.

Based on data from a preliminary study conducted by researchers on January 7, 2019, it was found that the incidence of stunting in Bangli Regency was 28.4%. Data from the Bangli District Health Office shows that in 2017 the incidence of stunting in Kintamani District was 36%. The incidence of stunting in Kintamani District is the highest in Bangli Regency. Meanwhile, the data obtained based on measurements from Puskesmas V Kintamani found that the incidence of stunting was 36 (44%) under five from 82 under five in Songan B Kintamani Village. These data show that the incidence of stunting is still high. The results of interviews conducted with officers holding nutrition programs at the Bangli District Health Office showed that the efforts made by the government to prevent stunting were monitoring nutritional status (PSG), namely giving vitamin A, exclusive breastfeeding, and monitoring the growth of children under five by performing

weigh operations and height measurements. toddler body. Based on this data, the researcher is interested in conducting further research on the relationship between the level of maternal knowledge about healthy food and the incidence of stunting in children aged 2-5 years in Songan B Kintamani Village [5].

II. METHODS

This research is a correlational study which aims to see the relationship/correlative between variables in the study. The approach used is cross sectional. The population in this study was the number of mothers who had children aged 2-5 years in Songan B Kintamani Village, namely 82 children. In this study, the sample is the number of mothers who have children aged 2-5 years in the village of Songan B Kintamani who meet the criteria of inclusion and exclusion with a total sample of 69 children. The sampling technique used in this research is Probability Sampling with the Proportionate Stratified Random Sampling technique. The independent variable in this study is the level of maternal knowledge about healthy food and the incidence of stunting in children aged 2-5 years is the dependent variable.

The type of data in this study is primary data with a scale of ordinal data taken directly by the researcher. Data on the level of maternal knowledge about healthy food, namely data obtained from the results of several statements about things related to healthy eating with a questionnaire and data on the incidence of stunting is obtained through measuring height per age with a microtoice (height measurement tool), infantometer body length) with the z-score table as a reference.

The researcher then applied for permission to conduct research to the Bali Provincial Investment and Licensing Board through the secretariat of P3M STIKes Wira Medika Bali after that granted permission to Kesbang Pol, Linmas Bangli Regency and Bangli Regency

Health Office then after obtaining permission, the researchers continued to collect data in the village. Songan B. the researcher was assisted by 2 enumerators. After the data was collected for about 2 weeks the data was tabulated directly into the master.

III. RESULT AND DISCUSS

Table 1. Characteristics of Research Respondents in Songan B 2019

No	Characteristic	F	(%)
1	Age		
	21-30 years	12	17,4
	31-40 years	34	49,3
	>40years	23	33,3
	Total	69	100
2	Level Of Education		
	Primary school	30	43,5
	Junior High	15	21,7
	Senior High	18	26,1
	College	6	8,7
	Total	69	100
3	Work		
	Farmer	43	62,3
	Self Employer	18	26,1
	Employe	8	11,6
	Total	69	100
4	Parity		
	Primipara	20	29.0
	Skundipara	39	56.5
	Multipara	10	14.5
	Total	69	100
5	Gender		
	Female	37	53,6
	MAle	32	46,4
	Total	69	100



Table 1 above shows that of the 69 respondents based on the age group of mothers under five, most of them are in the 31-40 year age group as many as 34 respondents (49.3%). Data based on education level, most mothers of children under five have elementary education level of 30 respondents (43.5%). Most of the data based on the work of mothers of children under five, namely 43 respondents (62.3%) work as farmers. Most of the data based on parity of mothers under five are as many as 39 respondents (56.5%) parity scundipara. Most of the data based on the sex of children under five were as many as 37 respondents (53.6%) were female

Table 2. Mother’s Knowledge Level about Healthy Food in Songan B Village in 2019

Level Of Knowledge	F	(%)
Good	7	10,1
Enough	35	50,7
Less	27	39,1
Total	69	100

Table 2 shows that of the 69 respondents, mostly 35 respondents (50.7%) had sufficient knowledge.

Table 3. Incidence of Stunting in Toddlers Ages 2-5 Years in Songan B Kintamani Village in 2019

Stunting Incidents	F	(%)
Not Stunting	31	44,9
<i>Stunting</i>	38	55,1
Total	69	100

Table 3 shows that of the 69 respondents, most of the stunting rates were 38 respondents (55.1%).

The results of the Spearman Rank statistical test showed that the p-value = 0.000 <math>< \alpha (0.05)</math>,

so Ho was rejected and Ha was accepted, meaning that there was a significant relationship between the level of maternal knowledge about healthy food and the incidence of stunting in children aged 2-5 years in the village. Songan B Kintamani. The Spearman Rank test results also obtained a correlation coefficient of -0.592 so that it means that there is a moderate relationship between the level of maternal knowledge about healthy food and the incidence of stunting in children aged 2-5 years, it is said that the relationship is moderate because the correlation coefficient value in this study is in the range 0.40-0.599. There is a negative sign (-) in front of the correlation coefficient, indicating that the direction of the relationship between variables has an opposite relationship, meaning that the better the mother’s knowledge of healthy food, the smaller the incidence of stunting.

IV. DISCUSSION

The knowledge of mothers about healthy food shows that the results of the study showed that the level of knowledge of mothers about healthy food was mostly categorized as sufficient, namely 35 respondents (50.7%), while mothers with insufficient knowledge levels were 27 respondents (39.1%) and mothers with a good level of knowledge were 7 respondents (10.1%).

Knowledge is the result of “knowing” and this occurs after people sensing a certain object. Sensing of objects occurs through the five human senses, namely sight, hearing, smell, taste and touch by themselves. The time from sensing to producing knowledge is strongly influenced by the intensity of perceptual attention to the object. Most of human knowledge is obtained through the eyes and ears[1][6].

Mother’s knowledge of healthy food is influenced by factors of education, occupation and age. These results are in accordance with the theory put forward by Budiman and Riyanto (2013) which states the factors that can affect

the level of knowledge, namely education, information media, arts, culture and economy, environment, experience and age [7].

The results of this study are supported by research conducted by Hermayanti (2017) which shows that the level of maternal knowledge about nutrition was obtained by 43 respondents (65.2%) with sufficient knowledge, while the results of research conducted by Susilowati (2017) stated that the level of Maternal knowledge about toddler nutrition as many as 53 respondents (55%) had good knowledge and also the results of research conducted by Susilowati (2017) also stated that 42 respondents (45%) had a low level of knowledge[8][9].

The results of this study found that mothers who had less knowledge were mostly primary school education and worked as farmers. Mothers who have sufficient knowledge are mostly SMA/SMK education and work as farmers. Mothers with a good level of knowledge are mostly university education and work as private employees. According to researchers, the mother's knowledge about healthy food is influenced by the level of education and work according to the theory according to Budiman and Riyanto (2013) which explains that the level of education affects the learning process, the higher the level of education a person has, the easier it is to receive information so that there is more knowledge. owned, besides economic factors can also affect one's knowledge, because a person's economic status will determine the availability of a facility required for certain activities [7].

Table 3 regarding the incidence of stunting in children aged 2-5 years in Songan B Kintamani Village shows the results of the research found that most of the children under five were categorized as stunting as many as 38 respondents (55.1%), while toddlers who had height was categorized as not. stunting as many as 31 respondents (44.9%).

Stunting is a chronic malnutrition problem caused by insufficient nutrient intake for a long time due to feeding that is not in accordance with nutritional needs. Stunting occurs when the fetus is still in the womb and only appears when the child is two years old. Stunting is a condition of failure to thrive in children under five years of age as a result of chronic malnutrition so that the child is too short for his age. Short (stunted) and very short (severely stunted) toddlers are toddlers with body length (PB/U) or height (TB/U) according to age compared to the 2006 WHO-WGRS (Multicentre Growth Reference Study) standard standard [10].

The incidence of stunting in children under five can be caused by maternal care practices, limited health services (including Ante Natal Care (ANC) services, quality post natal care and early learning), lack of household/family access to nutritious food, lack of access to water hygiene and sanitation, inadequate complementary feeding and infection. One of the factors of maternal care practices is the lack of knowledge about health and nutrition before and during pregnancy, and after the mother gives birth[11]

The results of this study were supported by research conducted by Lestari, et al. (2017) entitled "Factors Associated with the Incidence of Stunting in Toddlers Aged 24-59 Months in Wawatu Village, Moramo Utara District, South Konawe Regency" showed that there were 23 toddlers aged 24-59 months (65, 7%) were stunted, while the results of research conducted by Rohmatun (2014) entitled "The Relationship between Mother's Education Level and Exclusive Breastfeeding with Stunting Incidence in Toddlers in Sidowarno Village, Wonosari District, Klaten Regency" shows that as many as 34 children under five (53.1%) were stunted[12][13].

The results of the research obtained are supported by research conducted by Adelina, et al. (2018) in the Duren Public Health Center,



Semarang Regency, which shows that there is a significant relationship between the level of knowledge of maternal nutrition and stunting with a p-value of 0.017 ($p = <0.05$). The results of a study conducted by Pormes et al (2014) at TK Malaekat Protector Manado also showed that there was a significant relationship between parents' knowledge about nutrition and stunting in children aged 4-5 years, namely a p value of 0.000 ($p = <0, 05$) while the results of a different study conducted by Ni'mah, et al (2015) in Balen District, Bojonegoro Regency, showed that there was no significant relationship between the level of maternal knowledge and stunting in under-five poor families where the p value was 0.963 ($p = > 0.05$)[6][14].

Stunting is a condition where the child's height is too low. Stunting based on age is a height that is below minus two standard deviations ($<-2SD$) from the nutritional status table of WHO child growth standards[2]. The theory according to UNICEF in BAPPENAS (2011), the nutritional status of children can be influenced by direct and indirect factors, direct factors related to stunting, namely low birth weight, food consumption in the form of low energy intake and low protein intake. Indirect factors are parenting patterns by not giving exclusive breastfeeding, incomplete immunization, parental knowledge[9][15].

Knowledge about healthy food is a process of learning about food, how the body uses it and why food is needed. Knowledge of food and nutrition affects the type of food consumed as a reflection of nutrition-related practices and behaviors. Nutrition is an element found in food and can be used directly by the body[16].

Mother's knowledge about healthy food affects the incidence of stunting in toddlers, because mothers with good knowledge of nutrition in toddlers will pay attention to nutritional intake according to their children's

needs. Meeting the needs of adequate energy intake is very important for children. This energy comes from macronutrients such as: carbohydrates, fats, and proteins [17] [18].

This study shows that most mothers under five have sufficient knowledge and only a small proportion of mothers have knowledge of good healthy food, so that mothers under five need to increase their knowledge about healthy food. Mothers who have good knowledge about healthy food will take into account the types of food given to their children according to age such as for children aged 0-6 months who consume only breast milk (ASI), while for children over 6 months of age the mother will pay attention to the intake and types of additional food according to the child's needs so that children's nutrition is fulfilled [18][17]

V. CONCLUSION

The level of maternal knowledge about healthy food in the village of Songan B Kintamani in this study most of the mother's level of knowledge was sufficient, namely as many as 35 respondents (50.7%). The incidence of stunting in children aged 2-5 years in Songan B Kintamani Village, most of the children under five had a height categorized as stunting, as many as 38 respondents (55.1%). The results of the analysis using the Rank Spearman statistical test showed that the p-value = 0.000 ($p = <0.05$) means that there is a significant relationship between the level of maternal knowledge about healthy food and the incidence of stunting in children aged 2-5 years in Songan B Kintamani Village. The correlation coefficient value is -0.592 (moderate relationship strength (0.40-0.599) and the direction of negative correlation (-) indicates that the direction of the relationship is opposite between variables.

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