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The Correlation Between Mothers Knowledge About Nutrition and The Incidence of Stunting in Toddlers

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Abstract

Background: Stunting is the impact of nutrient deficiencies during the first thousand days of life. This causes disruption of children's physical development, causing a decline in cognitive and motor abilities and decreased work performance.Objective: To determine the relationship between maternal knowledge about nutrition and the incidence of stunting, to determine the level of maternal knowledge about nutrition, to determine the nutritional status of stunted children. Method: this study is quantitative with cross sectional research design. The number of samples was 37, with a sampling technique using purposive sampling. This research was carried out in Bejiharjo Gunung Kidul Yogyakarta from June to August 2023. Results: The results showed that the results of spearman's rho test 0.793. Conclusion: there is no relationship between maternal knowledge about nutrition and the incidence of stunting and mother's knowledge.

Keywords: *Maternal Knowledge; Nutrition; Stunting*

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1. Introduction

Stunting in children is the impact of nutrient deficiency during the first thousand days of life (Wiyono et al., 2023). This causes irreversible physical development disorders in children, resulting in decreased cognitive and motor skills and decreased work performance. Stunting children have an average Intelligence Quotient (IQ) score of eleven points lower than the average IQ score in normal children. Growth and development disorders in children due to malnutrition if not intervened early will continue into adulthood. According to the World Health Organization (WHO) in 2017, Indonesia is included in the third country with the highest prevalence in the Southeast Asia Region (SEAR). The average prevalence of stunting in Indonesia in 2005-2017 was 36.4% (Shinta et al., 2020). According to the WHO report quoted from Riskesdas in 2018, the stunting target in Indonesia was 20%, but in 2013 the stunting rate increased by 37.2% while in 2018 the stunting rate decreased to 30.8%. The prevalence of stunting in Indonesia is high compared to other countries such as Vietnam 23%, Malaysia 17%, Thailand 16%, and Singapore 4%.

Based on data from the Indonesian Ministry of Health in 2018, the problem of stunting in toddlers in Indonesia was 30.8% compared to 2013 which was 37.2%, where the province with the highest figure was Aceh at 37.9%, and the lowest was the Special Region of Yogyakarta (DIY). According to the Yogyakarta Health Office, the percentage of stunting in the Yogyakarta area in 2017 was still the lowest in Indonesia, but this condition is quite worrying because there are still several areas in Yogyakarta that have a fairly high prevalence of stunting toddlers. The highest prevalence of stunting toddlers is in Gunung Kidul at 25.9%, Kulon Progo 23.6%, Yogyakarta City 23%, Bantul Regency 22.9% and the lowest is in Sleman Regency at 10.6%.

This study aims to determine the relationship between maternal knowledge about nutrition and the incidence of stunting in toddlers in Bejiharjo District, Gunung Kidul, Yogyakarta.

2. Method

This research is a quantitative research type with a cross-sectional research design. The number of samples is 37, with a sampling technique using purposive sampling. This research was conducted in Bejiharjo Village, Gunung Kidul from June to August 2023. The data of this study were analized with Spearman rank correlation test.

Almost half of the respondents working mothers become housewives or housewives, namely 30 respondents (78.4%). According to researchers, with the mother's job as a housewife or

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housewife, the mother should have more time to care for her children, for example, paying attention to children's nutrition, raising children well and so on.

3. Results and Discussion

Mother's Knowledge

Table 1 shows mayority (57.9%) of the respondents' mother's knowledge is good level. Mothers who have sufficient or good knowledge will find it easier to carry out activities and make it easier to complete tasks within the family, especially in taking care of children, feeding children, and paying attention to children's proper nutritional needs. Factors that can influence mother's knowledge there are namely age, education, and occupation. Mothers who have good knowledge are able to update and add other knowledge or new experiences, so that mothers can more easily accept new information that will be given as long as the information is in accordance with the facts and has a reliable source.

Table 1. Level of Mother's knowledge

Mother's knowledge	Frequency (f)	Percentage (%)
Good	22	57.9
Enough	12	31.6
Less	3	7.9
Total	37	100.0

Mother's knowledge about nutrition is the mother's ability to understand all information related to food ingredients containing nutrients for toddlers. Knowledge of feeding children can affect the mother's behavior in feeding her child because the process of forming behavior is an evolution of knowledge that can shape attitudes and then can influence the creation of behavior (Febriyani et al., 2022). Good nutritional knowledge in mothers is expected to be able to provide food with the right type and amount according to the needs of the child's growth age so that the child can grow optimally and not experience problems during their growth period.

The factors that influence maternal knowledge are the first, the mother's age, based on table 4.1 shows that almost all maternal respondents are aged 20-40 years, namely 28 respondents (75.6%). Which means that mothers already have quite a lot of knowledge in the family. The older a person is, the more mature and strong they will be in thinking and working, so the more mature they are, the easier it is to understand and comprehend everything they learn and get (Anderson, 2018).

Almost half of the mothers had a junior high school education, there are 25 respondents (32.4%). According to researchers, mothers with a junior high school education level have less experience in taking care of children because the cause of children experiencing stunting can also be caused by poor parenting. The higher a person's education, the easier it is to receive information. With a high education, a person tends to get information from other people and the mass media. Knowledge is closely related to education, a person with a high education has a wider knowledge. Education in this study associated with knowledge of the influence on food selection and fulfillment of nutritional needs (Ma et al., 2023).

Based on Table 2. There are 37 toddler respondents experienced stunting. According to researchers, one of the factors causing stunting is the mother's knowledge of nutrition which influences the provision of food or nutrition intake during growth and development. The Mothers with good maternal knowledge, it is hoped that mothers can provide children with nutritious food and balanced food during the growth and development process. Some factors that influence the incidence of stunting are economic factors, limited health services, poor parenting practices and lack of access to clean water and sanitation.

Table 2. Category of Stunting

Category	Frequency (f)	Percentage (%)
Short	26	70.3
Very Short	11	29.7
Total	37	100.0

The relationship between maternal knowledge about nutrition and the incidence of stunting in toddlers

The result of the Spearman's rho test is 0.793 or >0.05. It can be interpreted as there is no relationship between maternal knowledge about nutrition and the incidence of stunting in toddlers in Bejiharjo Village, Gunung Kidul District, Yogyakarta. The results of this study are in line with research conducted by Erni Maywita (2019) which showed that there was no significant relationship between maternal knowledge and the incidence of stunting in toddlers. The incidence of stunting in toddlers is related to the nutritional intake provided by their mothers. The nutrition given to toddlers depends on the mother so that the mother has an important relationship with the provision of food.

The results of this study are in line with research conducted by Ni'mah and Muniroh (2017) which stated that there was no significant relationship between maternal knowledge and the incidence of stunting in toddlers. High level of maternal knowledge does not guarantee having toddlers with normal nutritional status. Mothers who have good knowledge are expected to be able

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to apply the knowledge they have in their daily lives. However, behavior in addition to being influenced by the level of knowledge can also be influenced by other factors such as economy and environment.

Table 3. The relationship between maternal knowledge about nutrition and the incidence of stunting in toddlers

Variable	Stunting				Value		
Mother's knowledge	Short		Very Short		Total		P value
	N	%	N	%	N	%	
Good	15	68.2%	7	31.8%	37	100.%	0.79
Enough	9	75.0%	3	25.0%	37	100.0%	
Less	2	66.7%	1	33.3%	37	100.0%	

The Research which stated that there was no significant relationship between maternal knowledge and the incidence of stunting in toddlers. High level of maternal knowledge does not guarantee having toddlers with normal nutritional status. Mothers who have good knowledge are expected to be able to apply the knowledge they have in everyday life. This study is not in accordance with the study conducted by Hasnawati (2021) that there is a relationship between maternal knowledge and the incidence of stunting with a p value: 0.02 (p <0.05) in toddlers aged 12-59 months in the Lawawoi Health Center work area, Sidrap Regency. Based on the results obtained by the researcher, maternal knowledge does not always affect the incidence of stunting in children. However, mothers must have knowledge about good nutrition so that children's growth and development can be optimal. Apart from knowledge, the level of education also does not have a significant effect on maternal knowledge. This shows that mothers with a high level of education are not used as a benchmark for having a good level of knowledge, because mothers with a high level of education generally spend more time working so that time to take care of children will be more limited (Li & Qiu, 2018).

Environmental factors have an influence on the process of knowledge entry into individuals in that environment. Then according to also said that parents who are short because of genes in chromosomes that carry short traits are likely to pass on these traits to their children (Delgado et al., 2019). If the short nature of the mother or parents is caused by nutritional or pathological problems, then the short nature will not be passed on to their children. Economic factors are also considered to have an effect on children's growth and development. In this study, table 3 shows that most mothers earn around 500,000 - 1,000,000 rupiah per month, this could be one of the factors that children experience stunting due to inadequate nutritional intake. In this study, it was found that all children in this study had a BMI (body mass index) below normal, namely Underweight.

4. Conclusions and Suggestions

The Findings indicate there are relationship between maternal knowledge about nutrition and the incidence of stunting in toddlers in Bejiharjo Kepanewon Gunung Kidul, Yogyakarta.

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