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THE RELATIONSHIP BETWEEN MATERNAL AGE AND SEX OF TODDLERS AND NUTRITIONAL STATUS

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Abstract

Stunting can be assessed through the measurement of children's nutritional status is an important aspect of their health and development, which can be influenced by various factors, including maternal age and gender of the child. This study aims to analyze the relationship between maternal age and child sex on the nutritional status of children under five in the working area of the Brangsong 2 and Kaliwungu health centers, Kendal Regency. The type of survey research used a cross sectional approach with a sample of 40 people. The sample was selected by simple random sampling and analyzed by the Chi-Square test. The results of the study showed that most of the gender was female as many as 22 people. (55%) and most stunted toddlers have a maternal age of <20 years as many as 22 people (55%); The results of the Chi-Square analysis that examined the relationship between age and nutritional status of toddlers obtained a significant value of 0.0000 less than α (0.05).the relationship between the type of play and the nutritional status of toddlers was obtained a significant value of 0.0000 less than α (0.05) So that the study can conclude that there is a relationship between the age of the toddler's mother and the nutritional status and there is a relationship between the type of kelami and the nutritional status of toddlers. It is recommended for midwives and cadres to provide support to mothers to get the right stimulation so that toddlers develop optimally.

Keywords: *age, gender, nutritional status, toddler*

1. INTRODUCTION

Stunting is a physical condition that is a failure to grow up from a child that is influenced by many factors. Factors that affect the incidence of stunting in toddlers include the gender of the toddler, the height of the parents, the level of education of the elderly, the weight at birth and the pattern of exclusive breastfeeding as well as the socio-economic condition of the parents (1). The incidence of stunting is experienced by children around the world. For the Southeast Asian level, Indonesia is at Level 3 with a prevalence of 36.4% in the 2017 season. And data from the nutritional status study in Indonesia found that 24.4% of children were stunted.(2). Unicef said that stunting in children less than 6 months old is more severe than 2 years old. The impact of growth on the physical appearance of toddlers is evident and mental development problems can also be disturbed so that it is not optimal in following learning, as well as intellectual development is impaired in cognition.(3)

Disturbed growth and development of toddlers will have an impact on stunting(4) The causes of stunting in children based on gender can be proven from the prevalence of stunting in boys = boys is 38.1% while in girls around 36.3%. Male toddlers experiencing malnutrition can affect their subsequent growth and development (5) The maternal Uisa factor is not directly a factor causing stunting. However, with the mature age of mothers, poor experience in caring for children and education can have an impact on parenting and inappropriate interventions in stimulating children's growth and development. This condition will cause stunting in children (6)These variations can be caused by differences in diet, energy needs, and responses to infectious diseases. These findings suggest that children's internal factors, including gender, contribute to nutritional status and stunting incidence. The novelty of this study lies in focusing on the interaction between maternal age and child sex in determining nutritional status and stunting incidence. Although many previous studies have explored these individual factors, none have specifically assessed the synergistic relationship between maternal age and child sex in the context of stunting. Using the chi-square test, this study seeks to fill in the gaps and provide new insights into how the combination of these factors can affect stunting risk. The findings of this study are expected to help in designing more focused interventions and more effective public health policy strategies.

2. METHODOLOGY

This type of research is an analytical survey research using a cross-sectional approach. The sampling technique was simple random sampling with a sample of 40 mothers under five stunted.this research was carried out in the working area of the Brangsong 2 and Kaliwungu Health Centers, Kendal Regency which was carried out in August 2024.the research instrument used questionnaires and data from the weighing results contained in the health center.data processing was carried out by a computerized system using Chi-Square analysis.

3. RESULTS

Table 1: *Distribution of Frequency of Toddler Sex*

Category	F	%
Girl	**22**	**55**
boy	**18**	**45**
Total	**40**	**100**

Based on table 2, it shows that most of the toddlers are girls, which is 55% and boys are 18 people (45%)

The results of this study are not in line with the research conducted by Casnuri which shows that the gender of toddlers does not affect health status, especially in the problem of stunting (5)

Tabel 2: *Age frequency distribution of mothers under five*

Kategori	F	%
21-35	18	45
<20	22	55
Total	40	100

Based on table 2, it shows that 22 people (55%) are mothers <20 years old, while mothers aged 21-35 years are 18 people (45%).

Tabel 3: *Sex relationship and nutritional status of toddlers*

Status gizi								**P**
		Normal		**stunted**		**Total**		
		N	%	n	%	n	%	
Sex	Girl	19	20	3	10	22	100	
	Boy	1	20	17	10	18	100	
Total		**20**	**20**	**20**	**10**	**40**	**100**	

Based on table 3, it was found that most of the children who were male had a short nutritional status of 17 people (%) while most of the girls had normal nutritional status, which was as many as 19 people based on the results of the analysis of statistical tests obtained that there was a relationship between sex and the nutritional status of children aged 3-4 years at the Brangsong 02 and Kaliwungu Health Centers with a Pearson Chi-square value of 0.000 (P<0.05). With Yuningsih's research that mentions that nutritional status, especially stunting, is related to gender.

In this study, a significant relationship was found between the sex of the child and nutritional status. Chi-square analysis showed that sex differences among children – both boys and girls were significantly related to their nutritional status according to TB/U standards.
In this study, boys showed a higher prevalence of stunting in the short or stunted category and the main factors that affect nutritional status are more related to the age of the mother and environmental factors and the diet received by the child. This shows that although the gender of the child can affect certain aspects of health, in the context of this study, the mother's age and nutritional status during pregnancy also play a role in determining the nutritional status of the child.

Tabel 4: *The relationship between maternal age and nutritional status of toddlers Status gizi*

		Normal		**Pendek**		**Total**	
Mother's age		N	%	n	%	n	
	21-35	15	20	3	10	18	0.000
	<20	5	20	17	10	22	
Total		20	20	20	10	40	

Based on table 4, it was found that most mothers aged <20 years have children with short nutritional status as many as 17 people (%), while mothers with the age of 21-35 most have normal nutritional status as many as 15 people (%) based on the results of statistical test analysis, the results are obtained that there is a relationship between maternal age and nutritional status of children aged 3-4 years working at Brangsong 02 and Kaliwungu health centers with a Pearson chi-square value of 0.000 (p<0.05).research This is in line with Yunus' research which states that the age at risk has an influence on children's nutritional status (7)

The results of the study showed that there was a significant relationship between maternal age and child nutritional status, especially related to the incidence of stunting in toddlers. In this study, children's nutritional status was measured using the standard of height/age (TB/U), which is one of the main indicators to assess stunting. The results of the chi-square analysis revealed that the mother's age had a significant influence on the nutritional status of the child. The age of a very young or very old mother can be associated with an increased risk of stunting in children. Mothers who give birth at a very young age may face

malnutrition and health problems that affect the child's growth, while older mothers may experience pregnancy complications that affect the child's nutritional status.

In the context of this study, toddlers aged 3-4 years who are included in the stunting category are generally children of mothers who are in the extreme age group, namely under 20 years old or over 35 years old. This shows the need for special attention to maternal age as an important factor in stunting prevention and nutrition intervention planning. Another reinforcing factor is low socioeconomic conditions that trigger stunting due to lack of nutritional fulfillment(8)

The nutritional status of children in this study was measured using the standard of height/age (TB/U), which is a method that has been approved by the World Health Organization (WHO) to assess stunting. TB/U is a measure that compares a child's height to the average height for their age, and can provide a clear indication of long-term growth problems. This measurement was carried out on toddlers aged 3-4 years, which is a critical period for growth evaluation and stunting prevention. Using the TB/U standard, this study can provide an accurate picture of the prevalence of stunting in toddlers in the Brangsong and Kaliwungu Health Center areas, and allow the identification of factors contributing to this problem. The results of this analysis provide valuable insights to design more effective nutrition intervention programs and target the groups most in need.

4. CONCLUSIONS

In this study, the relationship between maternal age and nutritional status and gender relationship with nutritional status at the age of 3-4 years in the Brangsong 2 and Kaliwungu Health Center areas of Kendal district has been analyzed. From the results of the study, it was found that most of the toddlers aged 3-4 years have mothers aged <20 years, 22 people (55%) and most of the toddlers have a male gender as many as 20 people. It can be concluded that there is a relationship between maternal age and the nutritional status of toddlers and there is a gender relationship with the nutritional status of toddlers aged 3-4 years in the working area of the Brangsong 2 and Kaliwungu health centers with a significance value of 0.000 more than 0.05. It is recommended that midwives provide information and comprehensive midwifery care in optimizing the stimulation of growth and development of toddlers

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