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THE ROLE OF PARENTS AND NEIGHBORHOODS IN PREVENTING UNDER-5 NUTRITION DISPARITIES IN VILLAGES & CITIES

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Abstract

Objective: Malnutrition in children under five is one of the main health problems in Indonesia, which can have a major effect on child development. This study aims to analyze the role of parents and the environment in the prevention and management of nutritional disparities among children under five in rural and urban areas.

Methods: This study used a quantitative design with a cross-sectional approach and involved 380 parent respondents. The dependent variable in this study is the nutritional status of toddlers measured using the indicator of body weight based on body length (BB/PB), while the independent variables include mother's education, father's education, mother's occupation, father's occupation, family income, access to nutrition information, government nutrition programs, and region of residence.

Results: The results showed that 12.1% of toddlers had underweight, 85.3% had normal nutritional status, and 2.6% were overweight. Based on Chi-Square analysis, it was found that father's education, father's occupation, family income, and region of residence had a significant association with under-five nutritional status ($p<0.05$), while mother's education, mother's occupation, access to nutrition information, and government nutrition programs did not show a significant association.

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Conclusion: This study suggests the importance of increasing the role of fathers and access to nutrition information in rural areas, as well as the need to increase parental awareness of the importance of good nutrition for the growth and development of toddlers. Government programs related to nutrition are expected to be more evenly distributed throughout Indonesia, especially in rural areas.

Keywords: Nutritional disparities, nutritional status of children under five, parental education, parental occupation, family income, region of residence.

Introduction

Poor nutritional status in toddlerhood can have long-term impacts, such as stunted physical growth, impaired cognitive development, and decreased productivity in adulthood [1]. In addition, the nutritional status of children under five is closely related to social, economic and environmental factors. The gap in nutritional status between rural and urban areas also remains a significant issue in Indonesia. Data shows that children in rural areas are more vulnerable to malnutrition compared to children in urban areas due to limited access to nutritious food, health services and education [2].

Under-five nutrition is one of the major challenges in improving the quality of human resources in Indonesia. Based on data from the 2018 Basic Health Research (Riskesdas), the prevalence of undernutrition among children under five in Indonesia reached 17.7%, while the prevalence of malnutrition was 3.9%. Although there has been a decrease compared to previous years, this figure is still above the threshold set by WHO of 10% for undernutrition and 2% for malnutrition[3]. Children who receive balanced nutrition from their parents have more optimal growth than those who do not. Parents' awareness

of child nutrition varies depending on their level of education and access to information. The role of the mother as the main food provider is crucial to the successful implementation of balanced nutrition [4].

The hypothesis in this study is HI: There is a significant relationship between mother and father's education and the nutritional status of children under five. HII : Employment and family income affect the nutritional status of toddlers. HIII: Access to nutrition information is related to parental nutrition parenting. HIV : Government nutrition programs affect the nutritional status of children under five. HV : Region of residence (rural or urban) has a significant relationship with the nutritional status of children under five.

Methods

This study was conducted in Lebak Regency. The method used in this study is a quantitative method with a cross-sectional design, where data are collected at one specific time to explore the relationship between independent variables (mother's education, father's education, mother's occupation, father's occupation, family income, access to nutrition information, government nutrition programs, and region of residence) with the dependent variable (nutritional status of toddlers based on BW). Data were collected through a survey using a structured questionnaire and anthropometric measurements to obtain the nutritional status of children under five. This study used stratified random sampling to ensure balanced representation between rural and urban areas. The population in this study were parents of toddlers living in rural and urban areas. Respondents were divided into 2 strata based on place of residence and random selection of respondents was carried out. A total of 380 respondents were determined

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based on the Slovin Formula (1960) with an error rate of 5%, and considering the proportion of children under five in rural and urban areas.

The data analysis technique used was descriptive statistics where demographic data and variable distribution were analyzed descriptively using frequency tables and diagrams. Bivariate analysis to test the relationship between each independent variable and the nutritional status of toddlers was analyzed using the chi-square test for categorical data.

Result

Table 1

Frequency distribution of respondents based on nutritional status BW/PB

Category	Frequency	Percentage
Wasting	46	12,1
Normal	324	85,3
Overweight	10	2,6
Total	**380**	**100**

Table 2

Frequency Distribution of Respondents Based on Their Characteristics

Variable	Category	Frequency	Percentage
Mother's Education	Low	191	50,3
	High	189	49,7
Father's Education	Low	204	53,8
	High	175	46,2
Mother's Occupation	Not Working	89	23,4
	Working	291	76,6
Father's occupation	Irregular Income	242	63,7
	Fixed Income	138	36,3
Family Income	Low	292	76,8
	High	88	23,2
Access to Nutrition Information	Limited	18	4,7
	Good	362	95,3
Government	Not Following	80	21,1

Nutrition Programs	Follow	300	78,9
Region of Residence	Village	154	40,5
	City	226	59,5

Table 3
Relationship between Independent Variables and Dependent Variables

Independent Variable	Category	Nutritional Status (BB/PB)						P-value
		Wasting		Normal		Overweight		
		n	%	n	%	n	%	
Mother's Education	Low	28	14,7	159	83,2	4	2,1	0,263
	High	18	9,5	165	87,3	6	5,0	
Father's Education	Low	32	15,7	172	84,3	0	0,0	0,000
	High	14	8,0	151	86,3	10	5,7	
Mother's Occupation	Not Working	14	15,7	74	83,1	1	1,1	0,312
	Working	32	11,0	250	85,9	9	3,1	
Father's occupation	Irregular Income	37	15,3	202	83,5	3	1,2	0,005
	Fixed Income	9	6,5	122	88,4	7	5,1	
Family Income	Low	38	13,0	250	85,6	4	1,4	0,014
	High	8	9,1	74	84,1	6	2,3	
Access to Nutrition Information	Limited	4	22,2	14	77,8	0	0,0	0,302
	Good	42	11,6	310	85,6	10	2,8	
Government Nutrition Programs	Not Following	12	15,0	68	85,0	0	0,0	0,186
	Follow	34	11,3	256	85,3	10	3,3	

Region of Residence	Village	6	3,9	140	90,9	8	5,2	0,000
	City	40	17,7	184	81,4	2	0,9	

Discussion

Father's education is significantly associated with the nutritional status of children under five. This suggests that the father's level of education can influence decision-making related to meeting family nutritional needs. Research by Smith et al. also found that higher father's education is associated with better child diet [5].

Fathers with irregular jobs and low-income families have a greater risk of having underweight children. This finding is consistent with previous research by Rahman et al, which states that family income has a direct effect on the availability of nutritious food in the household [6].

Region of residence showed a significant relationship with the nutritional status of under-fives. Toddlers in urban areas are more prone to malnutrition and overnutrition compared to toddlers in rural areas. This may be due to unbalanced diets in urban areas, such as high consumption of fast food [7].

The nutritional disparities among children under five in this study are closely related to the socioeconomic conditions of the family. Region of residence, father's education, and family income are the dominant factors in determining the nutritional status of children under five.

The variables of maternal education (p=0.263), maternal employment (p=0.312), access to nutrition information (p=0.302), and government nutrition programs (p=0.186) did not show a significant relationship with the nutritional status of children under five.

These results are in contrast to previous studies that suggest that maternal education and occupation influence children's diets [1]. Researchers suspect that this result is due to the role of mothers who rely more on the father's income in meeting the nutritional needs of the family, especially in families with low income.

The finding that mother's education and occupation are not significant on the nutritional status of children under five may be influenced by local cultural patterns, where fathers are more dominant in making family economic decisions.

The lack of a significant relationship in this variable may be due to the low effectiveness of existing nutrition programs. Although government programs are available, their implementation may not be optimal, especially in areas far from health service centers.

We suspect that the government's nutrition programs have not yet reached evenly, especially in rural areas. In addition, the lack of community participation in these programs is also an obstacle in handling nutrition problems.

The results of this study support previous findings regarding the role of socioeconomic factors in determining children's nutritional status[8]. However, the finding of insignificant variables, such as maternal education and government nutrition programs, is a new finding that requires further research to identify other factors that may play a role.

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