

THE RELATIONSHIP BETWEEN FAMILY INCOME AND THE INCIDENCE OF STUNTING IN CHILDREN AGED 6 - 59 MONTHS

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ABSTRACT

Background: Stunting is a nutritional problem in the world, there are 165 million toddlers in the world in a short condition (stunting). Stunting is not only caused by internal factors but stunting is also caused by external factors, one of which is family income. Low-income levels result in a lack of household food purchasing power. The purpose of this study was to analyze the relationship between family income and the incidence of stunting.

Method: This research method uses a cross-sectional research design. This research was conducted at the Health Center of Sorong City Region, Southwest Papua Province. This research was conducted from July to August 2024.

Result: The population is all mothers who have toddlers aged 6-59 months at the Sorong City Regional Health Center of Southwest Papua Province as many as 106 people. Data collection techniques were obtained through primary data, namely by questionnaire, secondary data in the form of reports from the Health Center. Data analysis in this study was carried out by computerization consisting of Univariate Analysis and Bivariate Analysis. Result: analysis test using Chi Square Test and Correlation Coefficient Using SPSS showed that p value .914 which is smaller than 0.05 so that H0 is rejected and Ha is accepted.

Conclusion: there is a relationship between family income and the incidence of stunting in children aged 6-59 months.

Keywords: Stunted Growth, Economic Level And Family Financing

INTRODUCTION

Stunting is a nutrition problem in the world, there are 165 million toddlers in the world in a short condition (stunting). About 80% of stunted toddlers are spread across 14 countries in the world including Indonesia (Nugroho, Sasongko, and Kristiawan 2021). Based on data from the Ministry of Health, the incidence of stunting in Indonesia in the last 10 years has decreased but still does not show a significant number. The incidence of stunting from 2007 to 2013 increased by 0.4% and from 2013 to 2018 decreased by 6.4%. (Ministry of Health 2018 in (Wahyudi, Kuswati, and Sumedi 2022).

According to WHO, stunting is when height for age is less than -2 SD. Children who are stunted will have impaired intelligence, susceptibility to disease and reduced productivity. Stunting begins to appear when the child is two years old but

begins when the fetus is still in the womb. (Satriawan 2018). Maternal nutritional status plays an important role in the failure of a child's growth from in utero to 1000 days of life. Pregnant mothers with poor nutrition and significant infections can give birth to stunted babies (Brownstone et al. 2020).

During pregnancy, pregnant women need increased nutritional intake to prevent micronutrient deficiencies, including by consuming foods that are high in protein. This is one of the internal factors for stunting (Abdullah et al. 2020).

Based on the results of a study conducted by Rina Zahra, 2023, it shows that stunting is not only caused by internal factors but stunting is also caused by external factors including knowledge factors, complementary feeding practices, infection history, immunization provision, clean water sources, and environmental sanitation affect the

incidence of stunting in toddlers aged 12-59 months in the working area of the Ranto Peureulak Puskesmas. (Zahra et al. 2023).

In addition, based on a study conducted by Sutarto et al, 2020, it shows that the mother's education level and family income are significantly related to the incidence of stunting in toddlers. Family income is closely related to the economic level, the higher the income, the better the economic level (Sutarto, Azqinar, and Puspita Sari 2020).

Low income levels result in a lack of household food purchasing power. This leads to a lack of fulfillment of the nutritional needs of toddlers. BPS data as of July 1, 2024 shows that the number of poor people in Southwest Papua in March 2024 was 102.27 thousand people (18.13%), with the highest poverty rate in rural areas (BPS 2019). The level of poverty is directly proportional to the income and purchasing power of the community in fulfilling daily needs as well as the nutritional needs of children.

Based on the above background, the researcher is interested in conducting research with the title "The Relationship between Family Income and the Incidence of Stunting in Children Aged 6 - 59 Months" The purpose of this study is to deeply analyze family income on the incidence of stunting. The results of this study are expected to be a benchmark and basis for further research.

METHODS

This study is a quantitative study using a cross-sectional research design. This study was conducted at the Health Center of Sorong City Region, Southwest Papua Province. This research was conducted from July to August 2024. Population is the entire object of research or the object to be studied.

The population in this study were mothers who had toddlers aged 6-59 months at the Sorong City Regional Health Center, Southwest Papua Province as many as 106 mothers who had stunted children. The population of more than 100, which amounted

to 106 people, then in this study using cluster area sampling technique, to determine the sample of objects to be studied or very broad data sources (sugiono 2017).

Data collection techniques were obtained through primary data, namely by questionnaire, secondary data in the form of reports from the Puskesmas. Data analysis in this study was carried out by computerization consisting of Univariate Analysis and Bivariate Analysis (Suwarjana 2018).

RESULTS

3.1. Responden Characteristic

Responden characteristic are categorized based on mother's age, occupation and number of children. More details can be seen in Table 1 below:

No	Characteristic	Frequency	Percentage
Mother's Age (Years)			
1	20-35	90	84,9
2	<20/>35	16	15,0
Total		106	100
Mother's job			
1	Civil Servant	1	0,94
2	Workers	1	0,94
3	Military/Police	0	0,00
4	Farmers	1	0,94
5	Private Employee	2	1,88
6	Merchant	5	4,71
7	Self-Employed	1	0,94
8	Not Working / Housewife	90	84,9
9	Other	5	4,71
Total		106	100
Number of Children (Person)			
1	1	29	27,35
2	2	34	32,07
3	3	24	22,64
4	4	9	8,49
5	> 5	10	9,43
Total		106	100

Based on Table 1 shows that the most respondents were aged 20-35 years as many as 90 respondents or 84.9%, while the lowest respondents were aged <20 />35 as many as 16 respondents or 15.0%. For characteristics based on the mother's occupation, most mothers are not working or housewives as

many as 90 respondents or 84.9%. The characteristics of respondents based on the number of children were most in the number of children 2 people as many as 34 respondents or 32.07% while the lowest with the number of children 4 people as many as 9 respondents or 8.49%.

3.2. Family Income

For family income data, the basis is the provincial minimum wage (UMP). The minimum wage for Southwest Papua province in 2024 is IDR 4,024,270. This amount is the same as the Papua UMP because Southwest Papua does not yet have a statistical office or wage board. More details can be seen in Table 1 below:

No	Category	Frequency	Percentage
Provincial Minimum Wage (IDR)			
1	< UMP	9	8,49
2	> UMP	97	91,50
Total		106	100

Table 2 shows that the dominant family income is less than the minimum wage as many as 97 families or 91.50% and family income above the minimum wage as many as 9 families or 8.47%.

3.3. The Relationship Between Family Income Level And The Incidence Of Stunting In Toddlers

The relationship between family income and the incidence of stunting can be seen in Table 3 below:

Family Income	Nutrition Status Stunting		p value
	n	%	
< UMP	97	91,50	.914
> UMP	9	8,49	

Table 3 shows that the p value of .914 is smaller than 0.05, so H0 is rejected and Ha is accepted, concluding that there is a significant relationship between family income that is less than the minimum wage and more than the minimum wage on the incidence of stunting. The economic status of the family greatly affects the nutritional status of the family. This is related to the amount of food supply available in the household. Family

income is very influential on the nutritional status of toddlers, especially on stunting toddlers. The reduction in stunting will be faster if all sectors are involved, such as empowerment in the field of small businesses for housewives who will be able to increase sources of income for the family and also increase the degree of family health, through the fulfillment of food needs in the household (Agustin and Rahmawati 2021).

In a family with a low income, plus a large number of family members, it will be difficult to provide quality food for the family. For this reason, family income is one of the factors that influence child growth and development (Kawulusan et al. 2019).

This is reinforced by a literature review study which shows that out of 10 journals consisting of 5 national and 5 international journals

The results of 9 journals show the relationship between family income and the incidence of stunting in toddlers while 1 journal shows the results that there is no relationship between family income and the incidence of stunting in toddlers (Friyayi and N 2021).

CONCLUSION

Conclusion section should provide brief and clear answer related to the purpose of study, and not repeat abstract section or results. Conclusion section should be written in Times New Roman 11 pt along with spacing of 1.15. Author should write the conclusion logically and orderly. Author can write the limitation of this research and suggestion for further research. Conclusion should be written in paragraph not in list/numbering

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CONFLICT OF INTEREST

There are no conflicts arising from this research between either the funder or the researcher.

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