

Relationship between Mother's Education Level and Incidence of Stunting
Children aged 6-59 months

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ABSTRAK

Background: One of the main focus of nutrition problems is stunting in children under five years old. Stunting is a condition of growth failure in children under five years old. There are 100 districts / cities in Indonesia where the incidence of stunting is the highest and is a priority for the government to handle. And 3 of them are in Lampung Province, namely South Lampung 43.01%, Lampung 43.17% and Central Lampung 52.68%. **Objective:** To determine the relationship between maternal education level and family income with the incidence of stunting in children aged 6-59 months. **Methods:** This study was an observational analytic with a cross sectional approach. The sample of this study was 75 children aged 6-59 months obtained from purposive sampling calculation. Data analysis using chi square test. **Results:** There is a relationship between maternal education level and stunting with the results, namely the OR value of 3.313 (CI: 1.878 - 5.848) and the p value of 0.000 or p value <0.05. The test results obtained a p value of 0.000 <0.05. **Conclusion:** Low maternal education has a 3.313 times higher risk of stunting (<-2SD) compared to mothers with higher education. Higher maternal education is generally associated with better knowledge on nutrition, access to health services, and adequate parenting. Therefore, exploring the relationship between maternal education and the incidence of stunting may assist in the development of more effective public health policies.

ARTICLE INFO

Article History:

Submitted April 27, 2024

First Revision May 09, 2024

Accepted May 23, 2024

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Keywords:

Maternal Education Level,
Stunting.

1. INTRODUCTION

Stunting is a condition of failure to thrive in children under five years old (infants under five years old) as a result of chronic malnutrition so that children are too short for their age. Stunted and severely stunted children are children under five with a height (TB/U) according to a z-score of less than -2SD/standard deviation (stunted) and less than -3SD (severely stunted)¹.

The incidence of stunting in toddlers is one of the global nutrition problems. The incidence of stunting in the world reached 22.2% or 151 million.² When compared to the WHO limit for stunting problems of 20%, almost all countries in the world experience public health problems².

In Indonesia, based on the results of basic health research (Riskesdas) in 2018 there were 30.8% of toddlers who were stunted and at the Lampung provincial level it was 27.3%. This figure exceeds the national target of 20%³. There are 100 districts / cities in Indonesia where the incidence of stunting is the highest and is a priority for the government to handle. And 3 of them are in Lampung Province, namely South Lampung 43.01%, Lampung 43.17% and Central Lampung 52.68%³.

There are several factors that influence the occurrence of stunting in children, namely direct and indirect factors. One of the indirect factors is the mother's education level. According to Soekirman and UNICEF, low nutritional status can be directly influenced by low nutrient intake⁴.

One of the parameters for determining the socio-economic level of a family is the level of education, the level of education can make it easier for a person or community to absorb information and apply it in their daily life behavior. Especially the level of education of child caregivers. The mother's education and knowledge is low, as a result she is unable to choose and serve food for the family that meets the requirements of balanced nutrition⁵.

2. METHODS

This study was an observational analytic study with a cross sectional approach. This research was conducted at the Sukarama Health Center, Bandar Lampung City 2023. The study sample amounted to 75 toddlers. Data collection techniques using questionnaires Data analysis using Chi square statistical tests to test significance

3. RESULTS

This study was conducted in February 2023. The research site at the Sukarama Health Center, Bandar Lampung City 2023. The sample in this study amounted to 75 toddlers.

Table 1.
Frequency Distribution of Respondents

Variables	n = 75	%
Incidence of Stunting		
Stunting	10	13,3
Normal	65	86,7
Mother's Education Level		
Low Education	45	60
Higher Education	30	40

Source: Primary Data, 2023

Based on table 1, it is known that toddlers in the work area of the Sukarama Health Center, Bandar Lampung City (≥ -2 SD) were stunted as many as 10 toddlers (13.3%). Mother's education level is low as many as 45 mothers (60%).

Table 2: Relationship between Mother's Education Level and the Incidence of Stunting

Mother's Education Level	Incidence of Stunting				Total		p-value	PR (95%CI)
	Normal		Stunting					
	n	%	n	%	n	%		
Low Education	35	40,4	15	19,5	50	100	0,000	3,313
Higher Education	20	32,8	5	7,3	25	100		(1,878-5,848)

Source: Primary Data, 2023

Table 2 shows that there are differences in the incidence of stunting in children based on the mother's education level. Mothers with low education had a prevalence of stunted children of 19.5% (15 out of 50), while mothers with higher education had a lower prevalence of 7.3% (5 out of 25). Statistical analysis showed that this difference was statistically significant with a p value of 0.000, indicating a strong association between maternal education level and the incidence of stunting in children. In addition, the Prevalence Ratio (PR) value of 3.313 with a 95% confidence interval (1.878-5.848) indicates that children whose mothers have low education have a 3.313 times higher risk of stunting than children whose mothers have high education. These results emphasize the importance of maternal education in efforts to prevent stunting in children.

4. DISCUSSION

Stunting is a chronic malnutrition problem caused by inadequate nutrition over a long period of time, often starting when the fetus is still in the womb and only becomes apparent when the child is two years old. It reflects a failure to achieve optimal linear growth as a result of poor health or nutritional status. Stunting can also increase infant and child mortality, make sufferers more susceptible to disease, and cause poor posture as adults⁶.

According to the WHO, the impacts of stunting are divided into short-term, such as increased mortality and morbidity and reduced cognitive, motor, and language abilities, and long-term, including the risk of short stature and obesity later in life⁷.

Among the various risk factors for stunting, poor diet, poverty, short maternal height, underweight, and low maternal education level are the factors that contribute significantly. Of these factors, the mother's education level is the main variable in this study as it has a direct influence on parenting and knowledge about child health and nutrition⁸.

Education is a planned effort to create a learning atmosphere and learning process so that students can develop their potential, including the skills needed by society and the nation⁹. Generally, mothers with higher education have better knowledge about child care practices, environmental hygiene, and the selection of nutritious and balanced food. Mothers with higher education are able to provide more optimal child care than mothers with lower education, because education helps them understand and apply nutritional knowledge well, including in choosing cheap but quality food¹⁰.

In society, the understanding of the importance of education, especially for mothers, is still not optimal. Many mothers with low education experience difficulties in providing good nutrition for their children, often due to a lack of knowledge and skills in proper nutrition management. This is also exacerbated by the lack of family support to continue their education to a higher level. Maternal education plays a significant role in parenting, as the first and primary caregiver for children's health, and in the management of food in the family¹¹.

This study found that mothers with low education had a higher prevalence of stunted children than mothers with higher education. Among 45 mothers with low education (60%), the prevalence of stunting was 19.5%, while among mothers with higher education the prevalence was only 7.3%. Statistical analysis showed this difference was significant with a p value of 0.000 and a Prevalence Ratio (PR) of 3.313 (95% CI: 1.878-5.848). This indicates that children whose mothers have low education have a 3.313 times higher risk of stunting than children with highly educated mothers. This confirms the importance of maternal education in efforts to prevent stunting in children. Thus, the level of maternal education is proven to have a major influence on the nutritional status of children, and improving maternal education can be one of the strategic efforts in reducing the incidence of stunting in the community.

5. CONCLUSIONS

Stunting is a chronic nutritional problem that negatively affects children's growth and development. This study shows that the mother's education level plays an important role in stunting prevention. Mothers with higher education have better knowledge and childcare practices, which can reduce the risk of stunting in children. Improving access and quality of education for women, especially mothers-to-be, is an important strategy in reducing stunting and improving the quality of family life.

6. ACKNOWLEDGMENTS

Special thanks are due to those who helped conduct the research, to the author's institution, Raden Intan Lampung State Islamic University, the research site of the Sukarame Health Center, Bandar Lampung City, and respondents of mothers who have children aged 6-59 months.

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