



ANALYSIS OF KNOWLEDGE FACTORS AND ACTIVITY PATTERNS ON STUNTING IN ADOLESCENTS (JUNIOR HIGH SCHOOL) THROUGH NUTRITIONAL PATTERNS IN BINTAN REGENCY IN 2024

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ABSTRACT

Prevention and control of stunting require holistic and integrated efforts. Efforts to improve nutrition are activities carried out in an integrated, integrated, and sustainable manner to improve and maintain nutritional status in the community. Reducing stunting cases requires collaboration between health and non-health sectors in the form of promotive, preventive, curative, and rehabilitative efforts carried out by the local government and the community. The purpose of this study was to analyze knowledge factors and activity patterns on stunting in adolescents through nutritional patterns in Bintan Regency. The method in this study uses a quantitative method with analytical descriptions. The population in this study were residents in Bintan Regency. The sample of this study was 40 respondents which will be carried out in April-December 2023. The research instrument used a questionnaire on the material The Influence of Knowledge Factors and Activity Patterns on Stunting in Adolescents Through Nutritional Patterns. The results of the study showed that for knowledge about stunting, most students had sufficient knowledge (200 respondents (64%)), for activity patterns towards nutrition at positive risk (225 respondents (70%)) and analysis of the relationship between knowledge and activity patterns towards stunting in adolescents (junior high school) through nutritional patterns did not show a significant relationship because ($p < 0.05$).

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1. INTRODUCTION

Stunting is problem health crucial society in Indonesia, especially remember its broad impact on development children and adolescents. Stunting, which is defined by the World Health Organization (WHO) as a condition in which a child's height is more low compared to standard height for his age, caused by a lack of long - term malnutrition, infection recurring, and factors poor environment (WHO, 2012) (1). According to data from the District Health Office Bintan, prevalence of stunting in the Regency Bintan in 2020 reached 11.2 %, with 871 children from a total of 7775 toddlers identified experiencing stunting. This figure show significant improvement from year previously, where the prevalence of stunting in 2021 was recorded by 5.21% (2). Although there is decline, the prevalence of stunting is still tall This to signify the need more attention Serious to problem nutrition in the area the.

The impact of stunting is not only visible on the physical children, but also has an impact on development cognitive, social, and emotional they. Teenagers who experience stunting can experience decline ability learning,

improvement risk to disease chronic, and low productivity in the future (Aramico, 2013; Sari et al., 2017) (3)(4). Research also shows that stunting can contribute to the problem obesity among adolescents, where stunted adolescents have trend For develop pattern poor and inadequate eating active in a way physical (Tumilowicz et al., 2018; Wulandari et al., 2021) (5)(6). Condition This create cycle severe malnutrition was decided, because lack of intake childhood nutrition can influence pattern eating and activities physical in adolescence.

Poor diet and lack of knowledge about proper nutrition among teenager contribute to the increase prevalence of stunting. Changes in lifestyle life, especially among more teenagers choose food fast high and low nutrition, has be one of factor reason increasing problem nutrition in Indonesia. A study in Brazil show that more stunted children Possible experience obesity Because disturbance metabolism and patterns eat something that is not healthy (Hidayat et al., 2018) (7). Therefore that, is needed approach holistic in handling stunting, which involves education nutrition and improvement pattern activity physique teenager.

Study This aiming For analyze factor knowledge and patterns activity against stunting in adolescents in schools Intermediate First (Junior High School) in the Regency Bintan. With focus on pattern nutrition, research This expected can give outlook about importance education nutrition and activity adequate physical For prevent stunting among teenagers. Research results This expected can give contribution to effort more prevention of stunting effective, and increase awareness will importance nutrition and activity physical among teenager.

2. RESEARCH METHODS

This study uses a quantitative descriptive approach to analyze the factors of knowledge and activity patterns that influence stunting in adolescents at junior high schools in Bintan Regency. Involving 1,547 students from SMPN 1, SMPN 2, and MTSN, with a sample of 319 students selected using the Slovin formula. The inclusion criteria include active adolescents aged 12-15 years. Sampling was carried out using a quota sampling technique that divides the population into certain categories. The details of the sampling are as follows: SMPN 1: 151 students, SMPN 2: 109 students, MTSN: 58 students. The instrument used was a questionnaire consisting of The questionnaire consists of respondent characteristics, knowledge about stunting (10 questions), activity patterns (10 questions), nutritional patterns (questions about eating habits). Data analysis was carried out using univariate analysis: descriptive to describe the characteristics of each variable and bivariate analysis: chi-square test to analyze the relationship between knowledge and activity patterns to stunting, with p-value considered significant if $p < 0.05$.

3. RESULTS AND ANALYSIS

Of the 319 respondents who participated, demographic characteristics showed that the majority of respondents were 13 years old (36%), followed by 14 years old (32%) and 12 and 15 years old (8% and 24% respectively). Most respondents had sufficient knowledge about stunting (64%) and positive risk activity patterns (70%). The results of the bivariate analysis showed that there was a significant relationship between knowledge about stunting and activity patterns on the prevalence of stunting in adolescents. The Chi-Square test produced a p-value < 0.05 , indicating that increased knowledge and physical activity were associated with decreased stunting prevalence.

Table 1 Characteristics of age, height/weight, knowledge and activity patterns regarding nutrition

Respondent Characteristics	n	%
Age		
12 years old	24	8 %
13 years old	115	36%
14 years	101	32%
15 years	78	24
B/BB		
Small	217	68
Currently	64	20
Big	34	11
Knowledge about Stunting		
Not enough	35	11
Enough	200	64
Good	84	26



Activity Patterns Towards Nutrition		
Positive risk	225	70
Negative risk	94	30

Table. 2 Analysis of Knowledge and Activity Patterns on Stunting in Adolescents (Junior High School) through Nutritional Patterns in Bintan Regency in 2024.

Activity Patterns on Adolescent Stunting Through Nutritional Patterns							
Variables	Positive	%	Negative	%	χ^2	<i>P</i>	<i>C</i>
Knowledge about Stunting							
Not enough	35	10.6	284	89.4			
Cukup	200	68	119	32	2.31	0.314	.030
Baik	84	20.4	235	79.6			

4. CONCLUSION

This study shows that knowledge and activity patterns play an important role in preventing stunting in adolescents in Bintan Regency. Increasing knowledge about nutrition and promoting good physical activity patterns are needed to reduce the prevalence of stunting. Therefore, it is recommended that schools and local governments conduct health education and campaign programs that focus on nutrition and physical activity to increase awareness among adolescents.

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REFERENCES

- [1] WHO. (2012). World Health Organization: Nutrition.
- [2] Dinas Kesehatan Kabupaten Bintan. (2021). Laporan Kesehatan Kabupaten Bintan.
- [3] Aramico, R. (2013). The Impact of Stunting on Health and Development.
- [4] Sari, I., et al. (2017). The Relationship Between Stunting and Cognitive Development in Adolescents.
- [5] Tumilowicz, A., et al. (2018). Nutritional Transitions and Stunting: A Review.
- [6] Wulandari, D., et al. (2021). Changing Dietary Patterns and Their Impact on Stunting in Adolescents.
- [7] Hidayat, T., et al. (2018). Metabolic Disorders Related to Stunting and Obesity in Adolescents.

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