

**KNOWLEDGE AND ATTITUDES OF SCHOOL-AGE CHILDREN  
TOWARDS VEGETABLE AND FRUIT CONSUMPTION AT SD  
NEGERI 9 PEKANBARU**

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**ABSTRACT**

There are more cases of malnutrition than other cases, such as stunted growth of children and loss of vitamins and minerals. Lack of consumption of vegetables and fruit causes children to be susceptible to malnutrition. The novelty of this study is because it examines the knowledge and attitudes of school-age children towards vegetable and fruit consumption at SD Negeri 9 pekanbaru The purpose of this study was to determine the relationship between knowledge and attitudes towards vegetable consumption in school-age children. This research is a quantitative type of research using cross sectional method which was conducted in July 2015 to determine the knowledge and attitude scores. This research was conducted at the State Elementary School 9 Pekanbaru in a school environment where school children are easier to lack nutrients such as vitamins and minerals during their growth period. Of the 88 respondents studied, there is a significant relationship between knowledge of consumption of vegetables and fruit indicated by a P Value of  $0.008 < 0.05$  (OR: 4.667. & CI: 1.570 – 13.874). For attitudes, there is a relationship between attitudes towards consumption of vegetables and fruit in school children. P value  $0.004 < 0.05$  (OR : 6.500, CI : 2.049 – 20.619) From the results of this study, consumption of vegetables and fruit in children is still lacking. Consumption of vegetables and fruit can be increased through the role of parents and teachers in schools so as to reduce the problem of malnutrition. In addition, facilities and infrastructure in schools can also support children to be able to consume enough vegetables and fruit every day.

**Keywords:** Knowledge and attitudes of school-age children; consumption of vegetables and fruit for school-age children.

### INTRODUCTION

Children with good nutritional status can do activities at school well as well. The nutritional status of the child is influenced by eating habits. One of the eating habits is controlled by the knowledge and attitudes of one's child (1)(2). Currently, the world's nutritional situation shows two poor conditions. They were starting from hunger to a diet that follows the wrong lifestyle, which is low in fiber and high in calories, as well as thin and short conditions to obesity that occurs in children (3). On the other hand, infectious diseases and non-communicable diseases are also increasing. The role of nutrition contributes significantly to managing these two types of conditions. To achieve optimal health status, the two sides of this disease burden need to be given more attention to the nutritional approach, both in the rich and the poor (4).

According to the United Nations Children Fund (5), nutritional deficiencies are much more than other cases, such as stunted growth and loss of vitamins and minerals, which make children vulnerable to disease. Vegetables and fruits are foodstuffs that contain many nutrients,

especially vitamins and minerals. However, it is precisely vegetables and fruits that most Indonesians, especially school-age children, least consume. If there is a deficiency in consuming vegetables and fruits, it can cause the body to lack nutrients such as vitamins, minerals, fiber, and unbalanced acid-bases of the body, which can result in the onset of various diseases (6). An estimated 6.7 million deaths worldwide are due to a lack of consumption of vegetables and fruits (7).

Vegetables and fruit are one of the four pillars of balanced food in addition to grains, protein, and a little milk recommended in the family's fulfillment. The role of vegetables in family nutrition is often overlooked not only in terms of quantity but also in terms of their variety. Healthy vegetables are vegetables that are cultivated with organic management free of chemicals. These nutritional elements are found in vegetables and fruits, so the consumption of these vegetables and fruits becomes very important, especially for children of primary school age (8)(9).

The World Health Organization (4) recommends consuming more than 400 grams of vegetables and fruits daily to

reduce cancer risk. The recommendation is 250 grams of vegetables (equivalent to 2 1/2 servings or 2 1/2 cups of vegetables after cooking and draining) and 150 grams of fruit (equivalent to 3 medium-sized bananas or 1 1/2 pieces of medium-sized papaya or 3 medium-sized oranges. Meanwhile, in Indonesia itself, the recommendation for the consumption of vegetables and fruits set by the Ministry of Health (10) is as much as 300-400 grams per person per day for children under five and school-age children and 400-600 grams per person per day for adolescents and adults. About 2/3 of the recommended consumption of vegetables and fruits is a portion of vegetables (10).

The level of nutritional knowledge of school-age children affects attitudes and behaviors in selecting food and will further affect the healthy state of the individual concerned. Nutritional knowledge lacking or lacking application of nutritional knowledge in daily life can cause dietary problems..

Observing these problems, the researcher felt interested in conducting a study, "Is There a Relationship between Knowledge and Attitudes of School Children towards

The Behavior of Vegetable and Fruit Consumption in Schools?"

This study aimed to determine the relationship between knowledge and attitudes towards vegetable consumption in school-age children. The benefits of this study for School-Age Children are expected to provide information for school-age children to increase health concerns, especially regarding regular consumption of vegetables and fruits with sufficient daily portions. The results of this study can be used as researchers' insights so that they become input for teachers and school staff to pay more attention to the consumption of vegetables and fruits, especially nutrition in children in school.

### **RESEARCH METHOD**

Based on the objective aspect, the method used in this study is quantitative research with an analytical descriptive design that aims to find out the relationship between variables. The independent variables in this study are (knowledge and attitudes) and the dependent variables are (vegetable and fruit consumption patterns). The cross-sectional design is an analytical research design that aims to determine the relationship between variables where

independent variables and dependent variables are identified in a unit of time (11). A quantitative approach using cross-sectional design research in which both variables are placed at a team of the time.

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A population is a unit in which a research result will be applied. Ideally, research is carried out on the people because it can see a picture of the entire population where the research results will be used (11). the population in this study was all students of SDN 9 Pekanbaru, with the total number of classes being 409 children. To avoid dropping out of all the samples obtained, the model is increased by 10%. of the whole number of pieces that have been added, so the entire selection is 88 students.

**RESULTS AND DISCUSSION**

**The Relationship of Knowledge to Vegetable and Fruit Consumption in School-Aged Children at SDN 9 Pekanbaru**

Knowledge Child	Consumption of Vegetables and Fruits						P value (α=0,05)	OR	95% CI
	Less		Enough		Total				
	n	%	n	%	n	%			
Bad	25	83.3	5	16.7	30	100	0.008	4.667	1.570 13.874
Good	30	51.7	28	48.3	58	100			
TOTAL	55	62.5	33	37.5	88	100			

The table above shows that children with poor knowledge who consume fewer vegetables and fruits are 83.3% greater than children with good knowledge, 16.7%. Meanwhile, children with good expertise with fewer consumption levels are 51.7% greater than children with sound knowledge but with sufficient consumption of vegetables and fruits is 48.3%.

The statistical test results obtained p value = 0.008 > alpha 0.05 and then received Ha in the Ho reject, so it can be concluded that there is a significant relationship between knowledge of vegetable and fruit consumption in children. From the results of the analysis obtained OR = 4,667, meaning that poor children's learning is at risk 4,667 times for children to consume fewer vegetables and

fruits than children who have good understanding.

### The Relationship of Attitudes Towards Vegetable and Fruit Consumption in School-Age Children at SDN 9 Pekanbaru

Attitude of the child	Vegetable and Fruit Consumption						P value ( $\alpha=0,05$ )	OR	95% CI
	Less		Enough		Total				
	n	%	n	%	n	%			
Negative	50	71.4	20	28.6	70	100	0.001	6.500	2.049 20.619
Positive	5	27	13	72.2	18	100			
Total	55	62.5	33	37.5	88	100			

The table shows that children with negative attitudes who consume fewer vegetables and fruits are 71.4% greater than children with sufficient vegetable and fruit consumption, 28.6%. Meanwhile, children with a positive attitude who have fewer consumption levels are 27% smaller than children who have a positive attitude. Still, the consumption of vegetables and fruits is sufficient, which is 72.2%.

The statistical test results obtained p value = 0.001 < alpha 0.05, then rejected Ho, accepted Ha, and concluded that there is a significant relationship between children's attitudes toward vegetable and fruit consumption in children. From the results of the OR value = 6,500, it means that children's negative attitudes are at risk 6,500 times for children to consume fewer vegetables and fruits than positive children.

In the study results, it was found that respondents who consumed good vegetables and fruits were 37.5% smaller than respondents who consumed fewer vegetables and fruits were 62.5%.

According to Mohammad and Madanijah (2015), children's school-aged eating habits can be influenced by family eating habits. (12) added some nutritional behaviors in school-age children that are wrong. The wrong behavior is children who consume fewer vegetables and fruits, unhealthy snacks at school, and do not eat breakfast. In vegetables and fruits, there are various sources of nutrition, such as vitamin A in carrot vegetables and vitamin C in citrus fruits. Researchers argue that the consumption habits of vegetables and fruits in schoolchildren are still lacking. School-age children need more nutrients and adequate intake of good nutrition. In this case, healthy snacks and facilities and support from the family are the main things to help children to be able to consume healthy and nutritious food. Unhealthy snacks and not eating breakfast may be bad behavior shown by every school child. Therefore it needs support and an excellent example from the school and heaven so that children can consume nutritious and healthy food every day, especially in infancy.

Knowledge results from human sensing or knowing a person towards objects through his senses. Knowledge has different levels ranging from knowing, understanding, application, analysis, synthesis, and evaluation (13).

Children have a significant relationship between knowledge of vegetable and fruit consumption patterns. In the results of the study conducted by researchers, there were children with poor knowledge who consumed fewer vegetables and fruits were 83.3% greater than children with suitable expertise and consumed fewer vegetables and fruits, namely 51.7% with a p-value of  $0.008 > (0.05)$ , which means  $H_a$  was accepted and  $H_o$  was rejected. This is following research from (14), in the consumption of vegetables and fruits in respondents who have less knowledge with good vegetable and fruit consumption is 14% compared to respondents who have less ability and less consumption of vegetables and fruits, namely 86% with a p-value of  $0.003 > (0.05)$ . There is a significant relationship between knowledge and vegetable and fruit consumption. According to researchers, learning encourages a person to change behavior, especially children's conduct in consuming vegetables and fruits. Knowledge can affect a person's way of thinking in a good or bad view depending on the person's desire, for example, to consume vegetables and fruits. In this study, knowledge about the

consumption of vegetables and fruits by schoolchildren is still poor, coupled with the absence of encouragement and support from parents or teachers in schools to get children used to consuming vegetables and fruits. This can make children get used to it and not want to eat vegetables and fruits.

Attitude is a tendency in behavior (13). An attitude is a reaction or response of a person who is still close to a stimulus or object. (12) mentioned in her book on Wrong healthy behavior in schoolchildren, such as not consuming a balanced nutritional menu, not eating breakfast, unhealthy snacks at school, and consuming fewer vegetables and fruits. Based on Table 5.5. In the study, children with negative attitudes who consumed fewer vegetables and fruits were 71.4% greater than children with positive attitudes with less consumption rate of 27%.

This is in line with (15) research, which obtained statistical test results of  $0.003 < 0.05$ , meaning a significant, meaningful relationship exists between children's attitudes towards daily consumption of vegetables and fruits. Meanwhile, (16) results show this is the opposite. Namely, there is no relationship between children's attitudes regarding the selection of snack foods and the behavior of children choosing food (p-value =  $0.460 < 0.05$ ).

A positive attitude towards health values is not always manifested in a concrete

action because several reasons cause it. According to (13), perspectives cannot be realized in steps because factors like facilities and infrastructure are needed to discover activities. Health for school children must start from one's perspective, which will be formed at home with family. Therefore, it is essential to provide health counseling to exemplify a good attitude for creating excellent and correct health behaviors, one of which is to consume vegetables and fruits sufficiently starting from an early age. In addition, sufficient facilities and infrastructure such as canteens should also provide healthy snacks for children, especially snack ingredients based on vegetables and fruits. The lack of consuming vegetables and fruits in school-age children can be something that needs to be considered because vegetables and fruits are a source of vitamins and minerals that are very useful for the body, especially during the period of growth and development of children. A good attitude can be started early, especially in children in primary school.

### CONCLUSION

Conclusion there is a relationship between knowledge of vegetable and fruit consumption patterns in children with a p-value of  $0.008 < (\alpha 0.05)$ , OR = 4.667 & CI value = is 1.570 – 13.874. This means that poor children's knowledge is at risk 4,667 times for children to consume fewer vegetables and fruits than children with good

knowledge. There is a relationship between attitudes towards vegetable and fruit consumption patterns in children with P value =  $0.001 < (\alpha 0.05)$ , OR = 6,500, and CI = 2,049 – 2-.619.

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