

## The Effect Of Healthy Snacks Education On Students' Knowledge

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**Abstract.** Elementary school children are a group vulnerable to food poisoning caused by unhealthy snacks containing dangerous substances such as formaldehyde, borax, rhodamine, and methanol yellow. The aim of the research is to determine the effect of healthy snack education on students' knowledge. This type of research is quasi-experimental, with a sample of 30 students and data analysis using the Wilcoxon test. The result was an increase in knowledge, as seen from the pre-test and post-test results. There was a significant increase in knowledge ( $p\text{-value} < 0.001$ ). It can be concluded that there is an influence of healthy snack education on elementary school students' knowledge. It is hoped that the school will support it by providing healthy canteens in elementary schools.

**Keywords:** Education, Health Snacks, Knowledge, Elementary School

### INTRODUCTION

Based on the results of a survey by the Food and Drug Supervisory Agency (BPOM) in 2018, it is known that there were extraordinary events (KLB) related to snacks for school children in Indonesia, namely among elementary school (SD) children with 34 incidents. Apart from that, it is also known that elementary school (SD) children are a group that is vulnerable to food poisoning, with 42 (14.4%) cases of food poisoning originating from snacks. This is caused by snack foods that do not meet the requirements. It was found that snack foods contain substances dangerous to health such as formaldehyde, borax, rhodamine, and methanol yellow (BPOM, 2018). The presence of dangerous substances in snack foods makes snacks unhealthy to consume. Therefore, it is necessary to carry out activities to introduce healthy snacks from an early age to school-age children so that it is hoped that students will have knowledge, positive attitudes, and will behave when consuming healthy snacks.

Street food is food prepared and sold by street vendors on the streets and other public places that is eaten or consumed directly without further processing or preparation. The term street food is not far from the terms junk food, fast food, and street food because these terms are part of the term street food (Andriani, 2012). Snacks are very easy to find on the side of the road in various shapes, flavors, and color (Irianto, 2007). The food safety of schoolchildren's snacks is an important concern because schoolchildren consume snacks sold in the school environment every day (Njatrijani, 2021).

Based on a survey conducted in the SDN 151/IV Jambi City environment, it was found that there were many mobile food vendors and street vendors who were free to sell around the school area because there were no restrictions from the school. It is also known that most of

the students at State Elementary School 151/IV Jambi City like to buy snacks that are found around the school environment, namely on the sides of the main road, where the food is most likely to be exposed to dust, vehicle fumes, and other particles. dangerous for health, which also means that students have not been exposed to good knowledge about healthy snacks. Apart from that, from the observation results, it can be seen that there is no healthy school canteen that specifically sells healthy and nutritious food for students. Then, based on interviews conducted with class teachers, it was discovered that in the last 3 months, there were several students who did not go to school because they had diarrhea. Thus, it is very important to introduce healthy snacks through health education. Moreover, so far, there has been no special education related to healthy snacks. This activity aims to introduce healthy snacks through educational messages to elementary school-age children.

## **THEORETICAL STUDY**

There have been several previous studies related to counseling or education about healthy snacks on schoolchildren's knowledge. The results of the research entitled Picture Card Media Education Influences Children's Knowledge and Attitudes in Choosing Healthy Snacks in North Pontianak State Elementary School show that there is an influence of visual media education using the picture card method before and after being given intervention on children's knowledge and attitudes in choosing healthy snacks (Septiana & Suaebah, 2019). Next, research with the title Effectiveness of Education about Healthy Snacks in Increasing Knowledge and Attitudes of Overweight Students shows that education about healthy snacks with group discussions can increase the knowledge and attitudes of overweight schoolchildren in understanding about healthy snacks (Rizona et al., 2019). Then, research entitled The Effect of Health Education Through Hanging Paper Media on Elementary School Children's Knowledge About Healthy Snacks showed the results of an increase in students' knowledge scores after being given the intervention (Hanifah et al., 2023).

## **RESEARCH METHODS**

The type of research used is quasi-experimental or quasi-experimental research using a one-group pretest-posttest design where measurements and observations are carried out before and after treatment is given. This research measured the dependent variable as one group before (pre-test) and after (post-test) a treatment was given, and then the values before and after the treatment were compared. Within the framework of this research, research participants took part in an initial test (pre-test). first to assess respondents' knowledge about healthy snacks, then

continue by providing education in the form of counseling. Next, respondents will be given a final test (post-test) to assess the effect of healthy snack education on changes in respondents' knowledge. The research was conducted at State Elementary School 151/IV, Jambi City, in 2023. The research was conducted with 30 elementary school students. Data analysis was carried out using the Wilcoxon test because the data was not normally distributed.

## RESULT

Based on univariate analysis, the characteristics of the respondents were known. The results of this analysis can be seen in Table 1 below:

**Table 1: Characteristics of Respondents**

<b>Variable</b>	<b>n</b>	<b>%</b>
<b>Sex</b>		
Man	18	60,0
Women	12	40,0
<b>Classroom</b>		
III	4	13,3
IV	6	20,0
V	9	30,0
VI	11	36,7

From Table 1 above, it is known that of the 30 respondents, the majority were male, namely 18 people (60%), while there were 12 female students who took part in this activity (40%). Furthermore, from the table above, it is also known that of the 30 participants, the most were in class VI with 11 people (36.7%), class V with 9 people (30%), class IV with 6 people (20%), and class III with only 4 people (13.3%).

In this study, knowledge was measured before (pre-test) and after (post-test) the activity. To make it clearer, the results of measuring knowledge before and after the intervention can be seen in Table 2 below:

**Table 2: Results of Measuring Pre-Test and Post-Test Levels Respondents' Knowledge**

<b>Variable</b>	<b>Mean</b>	<b>Min</b>	<b>Max</b>
Pre-test	5,97	4	8
Post-test	8,10	6	10

Based on table 2 above, it can be seen that there is an increase in the average value (mean) regarding the level of knowledge of participants before (pre-test) and after (post-test), namely from 5.95 to 8.10.

In this study, an analysis was carried out to determine whether there was a change in the level of knowledge before and after being given intervention in the form of healthy snack education, using the Wilcoxon Test analysis. The test results can be seen in more detail in Table 3.

**Table 3: Increase in Knowledge of Socialization Participants**

<b>Knowledge</b>	<b>n</b>	<b>Median (Min-Max)</b>	<b>Mean±SD</b>	<b>Sig</b>
<i>Pretest</i>	30	6 (4-8)	5,97±0,928	0,001
<i>Posttest</i>	30	8 (6-10)	8,10±0,885	

Based on the analysis results in Table 3, it is known that the Sig (2-tailed) value is <0.001, meaning it is still below the significance level of 0.05, so it can be stated that the provision of healthy snack education that has been carried out can increase students' knowledge. The average pre-test knowledge score is 5.97, and the post-test knowledge score is 8.10.

## DISCUSSION

The research results show that there is an influence of healthy snack education on elementary school students' knowledge (p-value = 0.001), with an average pre-test knowledge score of 5.97 and an average post-test knowledge score of 8.10. In line with the results of research by Priawantiputri et al., (2019) regarding the Effectiveness of Nutrition Education with Nutrition Education Card Media on Increasing Knowledge, Attitudes, and Snack Food Behavior of Elementary School Children, which shows that there is a significant difference between the increase in students' knowledge scores in the treatment group and the control group, the knowledge score in the treatment group is higher than the group control (p-value<0.05). The results are the same as the research entitled The Effect of Nutritional Counseling on Traditional Snacks on Increasing School Children's Snack Knowledge and Behavior, which shows an increase in the average level of children's knowledge before and after the counseling, namely 10.45 and 11.88. The average behavior before and after being given counseling was 6.73 and 7.09 (Fitri et al., 2020). Also supported by the research result Nusu et al., (2020) entitled The Effect of Health Counseling About Healthy Snacks on the Knowledge and Attitudes of Students at SMP Negeri I Kauditan, North Minahasa Regency, which shows that there is a significant influence of counseling about healthy snacks on the knowledge and attitudes of students at SMP Negeri I Kauditan, North Minahasa Regency (p-

value = 0.000<0.05). Based on several research results, it shows that there is an influence of healthy snack education on knowledge.

Knowledge is mostly obtained through the senses of sight and hearing (Notoatmojo, 2012). The educational process using visual aids (media) means trying to show a situation that is almost the same as reality to the target so that the target will understand the messages conveyed more quickly. Likewise, in this study, education on healthy snacks was provided using audiovisual media that had an attractive appearance, making the student participants who received the intervention more enthusiastic about participating in research activities. There are several advantages to using audiovisual media, including that it is not boring to use, the results are easier to understand, and the information received is clearer and quicker to understand. From the research results and previous studies, it can be stated that providing education about healthy snacks using audiovisual media can increase knowledge. It is hoped that this increase in knowledge will provide students with the opportunity to choose healthy snacks to consume both at school and outside school.

## **CONCLUSIONS AND RECOMMENDATIONS**

Based on the research results, it is known that there is an influence of healthy snack education on elementary school students' knowledge. It is hoped that schools will provide support regarding healthy snacks by providing healthy canteens in elementary schools as facilities and solutions for maintaining the health and safety of schoolchildren's snacks. It is hoped that future researchers will conduct research with more interesting topics, variables, and research methods, for example, by conducting interventions related to schoolchildren's snacks based on local food's nutritional status.

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