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## Posters Can Increase Knowledge About The Benefits Of Vitamins In Vegetables And Fruits In Teenager

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**Abstract:** Vegetables and fruit in adolescents are useful to support their growth and development and good nutritional status. Knowledge is an important factor for the formation of one's actions. There are various kinds of counseling media that can be done, one of which is poster media. This study aims to analyze the effect of giving poster media on increasing nutritional knowledge of junior high school teenagers. Methods : This study was a pre-experimental design with a pretest-posttest one group design. The research subjects were teenagers at Al-Bayan Muara Pawan, Ketapang regency. A total of 114 samples. Data analysis using Wilcoxon to see the difference in the effect of giving media before and after being given poster media. Research Results : There is a difference in knowledge about the benefits of vitamins in vegetables before and after being given nutrition education using poster media for adolescents and There is a difference in knowledge about the benefits of vitamins in fruit before and after being given nutrition education using poster media for adolescents at the Al- Bayan Muara Pawan Islamic Boarding Schol, Ketapang Regency. Research suggestion : For Educational Institutions Media Poster can be used by multiplying and spreading the poster where students pass or often gather so that the knowledge of islamic boarding school students can increase not only junior high school teenagers and for other researchers can conduct further research on other variables such as pocket money, physical activity and consumption behavior and nutrition education for parents.

**Keywords :** Poster; vegetables; fruit; knowledge

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## I. INTRODUCTION

Optimal nutrition is very important for normal growth, physical development and intelligence starting from infants, children and all age groups. Good nutrition provides benefits such as a normal or healthy weight, a body that is not susceptible to infectious diseases, increased work productivity and protection from chronic diseases and premature death (Silalahi, Putri, & Ariani, 2018).

One of the groups that are vulnerable to nutritional problems are teenagers. Adolescence is a period of physiological, psychological, and cognitive changes that occur from childhood to young adulthood. Adolescence is also known as puberty, which means the time when children begin to experience sexual maturity and the reproductive organs are ready to carry out their functions. (Christianti & Khomsan, 2012).

According to Yuliah, Adam, & Hasyim (2017), adolescent nutritional needs need to be met to support the growth and development of the adolescent body. The speed of growth and development in adolescents is the second fastest process after the period of growth and development in infants. Therefore, optimal nutritional intake is needed to ensure normal growth and development in adolescents which will have an impact on the present and the future (Khomsan, 2014). Nutrients include protein, minerals, zinc, iron, vitamins and fiber. In addition to meeting macronutrients, micronutrients are also needed for adolescents, especially fiber and vitamin intake.

According to the World Health Organization (2005) in Laswati (2017), in the adolescent group the problem that often occurs is the lack of consumption of vegetables and fruit. Basic Health Research (2010-2013), shows that nationally the behavior of the population aged > 5 years and over who consumes less fruit and vegetables is 93.5% and increased in 2018 that nationally the behavior of the population aged > 5 years and over is less consume fruits and vegetables by 95.5%.

Vegetables and fruit in adolescents are useful for supporting growth and development and good nutritional status. Lack of consumption of vegetables and fruit in adolescents will pose a risk of health problems in the future (Purwita, Kencana, & Kusumajaya, 2018). Less consumption of vegetables and fruit which means less intake of vitamins and minerals.

One of the factors that affect a person's nutrition is the lack of knowledge about nutrition. This reduced knowledge will also reduce a person's ability to apply nutritional information in everyday life (Desi, Mesyamtia, & Ginting, 2018). Lack of knowledge about nutrition is one of the causes of low vegetable consumption in children due to lack of knowledge and information about the benefits and importance of eating vegetables in children from an early age (Suryandi, Hariyanto, & Metrikayanto, 2018).

With the poster media, it is hoped that teenagers can increase their knowledge about nutrition, especially about the benefits of vitamins in vegetables and fruit. Media Poster is an image media that combines visual elements such as lines, pictures and words to be able to attract attention and communicate a message briefly.

Based on these problems that nutrition education needs to be done. Researchers are interested in reviewing from several journals about the use of poster media for nutritional education about the benefits of vitamins in vegetables and fruit in junior high school adolescents. The aim is to find out the difference in knowledge before and after being given poster media about the benefits of vitamins in vegetables and fruit.

## II. METHOD

This study was a *pre-experimental* design with a *pretest-posttest one group design*. The research subjects were teenagers at the Al-Bayan Islamic Boarding School Muara Pawan Junior High School, Ketapang Regency. A total of 114 samples. Data analysis using *Wilcoxon* to see the difference in the effect of giving media before and after being given Poster media.

## III. RESULTS

### Characteristics of Respondents

#### 1. Age

The results of the age characteristics of respondents obtained are based on research that has been done.

**Table 1.** Frequency Distribution of Age Characteristics Age

Age	N	%
11 Years	9	7.9
12 Years	21	18.4
13 Years	48	42.1
14 Years	28	24.6
15 Years	8	7.0
Total	114	100

Based on the table above shows that the frequency distribution of the age of the respondents with the highest percentage was at the age of 13 years, namely 42.1%. While the lowest percentage was at the age of 15 years, namely 7.0%.

#### 2. Gender

The results of the sex characteristics of the respondents obtained are based on research that has been done.

**Table 2.** Frequency Distribution of Gender

Gender	N	%
Male	53	46.50
Female	61	53.50
Total	114	100

Based on table 2 shows that the sex distribution of respondents with the highest percentage is female, namely 53.50%. While the lowest percentage is male respondents, namely 46.50%, meaning that there are more female students than boys.

### Comparison of Knowledge Before and After Nutrition Education About Vegetables

**Table 3.** Comparison of Knowledge Before and After Nutrition Education About Vegetables

	n	Mean Ranks	Sum of Ranks
Negative Ranks	4 <sup>a</sup>	14.00	56.00
Positive Ranks	105 <sup>b</sup>	56.56	5939.00
Ties	5 <sup>c</sup>	4	
Total	114		
<i>p-value</i>		<0.001*	

\*significant, Wilcoxon Test  
 a. Posttest < Pretest Posttest  
 b. < Pretest Posttest  
 c. = Pretest Based

on the results of table 3 it can be seen that the knowledge of adolescents has increased after being given nutrition education with poster media. This can be seen from the average score of correct answers before nutrition education was 4.5 and after being given nutrition education with poster media the score increased to 7.5. test results *Wilcoxon* showed a significant difference between before and after nutrition education with poster media ( $p=0.001$ ).

#### Comparison of Knowledge Before and After Nutrition Education About Fruit

**Table 4.** Comparison of Knowledge Before and After Nutrition Education About Fruit

	n	Mean Ranks	Sum of Ranks
Negative Ranks	0 <sup>a</sup>	.00	.00
Positive Ranks	114 <sup>b</sup>	57.50	6555.00
Ties	0 <sup>c</sup>	0	
Total	114		
<i>p-value</i>		<0.001*	

\* Significant, Wilcoxon Test  
 a. Posttest < Pretest  
 b. Posttest > Pretest  
 c. Posttest = Pretest

Based on the results of table 4 it can be seen that the knowledge of adolescents has increased after being given nutrition education with poster media. This can be seen from the average correct answer score before nutrition education which is 5.5 and after being given nutrition education with poster media the score increases to 9.2. test results *Wilcoxon* showed a significant difference between before and after nutrition education with poster media ( $p=0.001$ ).

The results should be clear and brief. In this section, taking no more than 6-8 pages, outline the main findings of your research. You need not include too many details, particularly if you are using tables and figures. While writing this section use the smallest number of words necessary to convey your statistics.

#### IV. DISCUSSIONS

Nutritional knowledge is a person's understanding of the science of nutrition, nutrition, and the interaction of nutrients on nutritional status and health. Knowledge of healthy food is an important factor in food selection because it is one of the factors for healthy eating behavior. Lack of knowledge about nutrition will cause a person to choose the wrong food so that it will reduce consumption of healthy food and have an impact on nutritional problems (Rachman, Mustika, & Kusumawati, 2017).

In this study, before providing education using posters, respondents were first given *pretest* to determine their previous knowledge, then respondents were given nutrition education using posters about the Benefits of Vitamins in Vegetables and Fruits that were posted in places that students often pass by such as classroom walls, canteen, ablution queue to increase knowledge. After that, five days later, they were reassessed by giving them a posttest questionnaire to fill in according to their knowledge after being given education.

The results of the research on the benefits of vitamins in vegetables using posters for junior high school students in grades VII and VIII showed an increase in knowledge from the average knowledge score before (*Pretest*) 4 and after education (*Posttest*) to 8, which means it shows an increase in knowledge with a difference of increase of 2,99. The results of this study indicate that the average score of knowledge about the benefits of vitamins in vegetables in junior high school students in grades VII and VIII has increased before and after giving education.

The questionnaire that most students answered incorrectly on the statement "Fruits can be used as a natural diet that can prevent bad cholesterol from attacking our bodies" because in general students know what can be done for dieting is just by exercising and they don't know that with Consuming fruit can also be used as a natural diet because it contains vitamins and minerals that are good for the body.

The results of research on the benefits of vitamins in fruit using posters for junior high school students in grades VII and VIII showed an increase in knowledge from the average knowledge score before (*Pretest*) 6 and after education (*Posttest*) to 11, which means that it shows an increase in knowledge with a difference of increase of 3,64. The results of this study indicate that the average score of knowledge about the benefits of vitamins in vegetables in junior high school students in grades VII and VIII has increased before and after giving education.

The questionnaire that most students answered incorrectly on the statement "Eating vegetables and fruit every day can make you fat" was due to the lack of information students got about vegetables and fruit. They only know that everything that is consumed continuously can make you fat.

From the results of the *Wilcoxon* , it can be seen that there is a significant difference in the level of knowledge between before being given education and after being given education in the form of Posters About the Benefits of Vitamins in Vegetables and Fruits on nutritional knowledge of junior high school students in grades VII and VIII. This result is in line with Liza Salawati's research which states that nutrition education with poster media has the effect of let's eat vegetables poster on vegetable consumption in students at SDN 69, SDN 6, SDN 32, SDN 56 Banda Aceh. In this study, knowledge is better after being given education using posters. This poster is attractively packaged with colorful displays and also includes images so that it makes the subject interested in reading, indirectly increasing subject knowledge.

There are several factors that influence the increase in knowledge, namely the level of education, level of experience and level of information. This research can increase in terms of the information provided. Where information is packaged attractively in one medium with various colors and images. So that it can have an effect in increasing the knowledge of respondents. According to Notoatmojo (2005), health education media is a means or effort to display messages or information that communicators want to convey, be it through print, electronic and outdoor media, so that the target can increase his knowledge.

## V. CONCLUSION

There are differences in knowledge about the benefits of vitamins in vegetables before and after being given nutrition education using poster media for adolescents at Al-Bayan Muara Pawan Islamic Boarding School, Ketapang Regency. There is a difference in knowledge about the benefits of vitamins in fruit before

and after being given nutrition education using poster media for adolescents at the Al-Bayan Muara Pawan Islamic Boarding School, Ketapang Regency.

## ACKNOWLEDGMENT

Provide the Acknowledgments in a separate section at the end of the article before the *References*; they should not be specified on the title page as a footnote to the title or in any other way.

Write this paragraph as brief as possible giving credit to any institution responsible for funding the study (e.g., through a fellowship or grant) and any person (e.g., technical advisors or editors). Indicate here those persons who helped you during the research (for example, provided linguistic assistance or did a proofreading of the paper, etc.).

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