

The Effect of Nutrition Education on Knowledge and Attitudes About Nutrition for Students at Kedunguter in Brebes

Siti Nurjanah¹, Rifatul Masrikhiyah², Yuniarti Dewi Rahmawati³, Musyarofah⁴

^{1,2,3,4}, Undergraduate Nutrition Study Program, Muhadi Setiabudi University, Brebes, Indonesia

Email: ¹ noerjannah065@gmail.com , ² rifatul.masrikhiyah@gmail.com , ³ yuniartidewi.rahmawati@gmail.com

ARTICLE INFO	ABSTRACT
Article History: Received: May, 2021 Revised: June, 2021 Accepted: July, 2021	<i>School age (ages 5 to 14 years), is a period of rapid growth and development. At this age, physical activity continues to increase, such as playing, exercising or helping parents at work. Good nutritional intake in terms of quantity and quality is needed so that children's growth and development can be optimal. Nutrition education will increase children's nutritional knowledge and will help children's attitudes that can influence children's habits in choosing healthy foods and snacks. The effect of nutrition education on health may be more effective if the target is directly at primary school age children. To determine the effect of nutrition education on knowledge and attitudes about nutrition in students of SDN Kedunguter 01 Brebes. This type of research is a quasi-experimental design with Pre and Post test designs. The population in this study were all students in grades 4 and 5. The sample in this study was 103 students. The instruments of this research were counseling, leaflets, teaching aids, questionnaires. Statistical analysis using paired t-test with a significance level of $p < 0.05$ were obtained from two variables, namely knowledge of nutrition p-value (0.000) and attitudes about nutrition p- (0.000) which means less than 0.05 (p-value $< 0, 05$) eating has an effect. These results indicate that nutrition education increases knowledge and attitudes about nutrition. There is an effect of nutrition education on knowledge and attitudes about nutrition in students of SDN Kedunguter 01</i>
Keywords: <i>nutrition education, knowledge, attitude about nutrition</i>	<i>This is an open access article under the CC BY-SA license.</i>

Corresponding Author:

Siti Nurjanah

Email: noerjannah065@gmail.com



Abstract

School age (ages 5 to 14 years), is a period of rapid growth and development. At this age, physical activity continues to increase, such as playing, exercising or helping parents at work. Good nutritional intake in terms of quantity and quality is needed so that children's growth and development can be optimal. Nutrition education will increase children's nutritional knowledge and will help children's attitudes that can influence children's habits in choosing healthy foods and snacks. The effect of nutrition education on health may be more effective if the target is directly at primary school age children. To determine the effect of nutrition education on knowledge and attitudes about nutrition in students of SDN Kedunguter 01 Brebes. This type of research is a quasi-experimental design with Pre and Post test designs. The population in this study were all students in grades 4 and 5. The sample in this study was 103 students. The instruments of this research were counseling, leaflets, teaching aids, questionnaires. Statistical analysis using paired t-test with a significance level of $p < 0.05$ were obtained from two variables, namely knowledge of nutrition p -value (0.000) and attitudes about nutrition p - (0.000) which means less than 0.05 (p -value $< 0, 05$) eating has an effect. These results indicate that nutrition education increases knowledge and attitudes about nutrition. There is an effect of nutrition education on knowledge and attitudes about nutrition in students of SDN Kedunguter 01

Keywords: nutrition education, knowledge, attitude about nutrition

1. PENDAHULUAN

School age (5 to 14 years old) is a period that experiences rapid growth and development. At this age, physical activity continues to increase, such as playing, exercising or helping parents at

work. Good nutritional intake in terms of quantity and quality is needed so that children's growth and development can be optimal. Provision of nutrition at this age usually does not run perfectly, because many environmental factors greatly affect eating behavior.[1] Nutritional problems in elementary school children usually begin with a lack of energy and protein intake below the minimum requirement. In addition, the prevalence of under-eating of fruits and vegetables is still relatively high, physical activity is still relatively low and the habit of consuming snack foods affects energy and protein intake, and has a habit of being picky about food so that the variety of food consumed becomes less fulfilled. Various research results show that elementary school children's consumption of snack foods is still inadequate, but elementary school children often make snacks as the main food source and are used to eating unhealthy snacks at school rather than eating packed meals from home. [2] One of the factors that affect a person's nutrition is a lack of knowledge about nutrition. This reduced knowledge will also reduce a person's ability to apply nutritional information in everyday life. One way to increase one's knowledge is by providing nutrition education as early as possible. This nutrition education can be provided through counseling, providing illustrated comics, leaflets to school children. [1]

According to Healthy People 2010, Nutrition education will increase children's nutritional knowledge and will help children's attitudes which can influence children's habits in choosing healthy foods and snacks. The effect of nutrition education on health may be more effective if the target is directly on elementary school-age children. [3]

Research conducted by Nuryanto and Ardiyana Pramono, shows that there is an effect of nutrition education on elementary school children's knowledge about school children's nutrition. These results are consistent with research conducted by Marisa entitled The Effect of Nutrition Education Through Balanced Nutrition Comics on Knowledge and Attitudes of Bendungan Elementary School Students in Semarang. Nutrition education through balanced nutrition comics increases knowledge and attitudes about balanced nutrition in both groups. [3] The description and concern about health and nutrition in school children is a very important issue. Nutritional problems in school children are often associated with consumption patterns, eating habits and behavior both at home and at school. Eating behavior such as consumption of street food, junk food or street food from the nutritional value contains fat, especially fried snack food, is common. In addition, snack food is also not filling. Perhaps this is what can be associated with the occurrence of obesity in school children. [4]

Nutrition practice and nutrition education is one of the main priorities in developed countries. The term school feeding is known and applied to reduce hunger and improve the nutritional status of children. [5] School feeding under the supervision of nutritionists has had a positive impact, namely reducing the number of children who skip breakfast and increasing the quality of life of children. The school feeding system in developed countries cannot be developed in all schools in Indonesia. Therefore, school feeding in Indonesia can be tricked by bringing balanced nutritional food from home. [6]

2. MATERIALS AND METHODS

This study uses a Quasi-Experimental research type with pre and post test designs. This method aims to determine differences in knowledge and attitudes about nutrition before and after the intervention on children at SDN Kedunguter 01 Brebes. The location of this research was carried out at SD Negeri Kedunguter 01 Brebes. When this research began in July-August 2021. The population in this study were all students and female students in grades IV and V which consisted of two classrooms with a total research population of 123 students. The sample in this study were 103 respondents using a purposive sampling technique. Data analysis used the Data Comparison test for Normality test first if the data were normally distributed using the paired T-test but if the data were not normally distributed using the Wilcoxon test. If the value of $P < 0.05$ then H_a is accepted, it means that there is a difference in nutrition education on knowledge and attitudes about nutrition at SD Negeri Kedunguter 01 Brebes. The tools used in this study were ballpoint pens, leaflets, props, projectors, cameras and the material used was a questionnaire containing statements.

3. RESULTS AND DISCUSSION

This research was conducted at SD Negeri Kedunguter 01 Brebes. The results of the data obtained were processed and processed using a computerized system and presented in the form of

bivariate analysis, bivariate analysis, i.e. if the P value <0.05 then H_a is accepted, it means that there is a difference in nutrition education on knowledge and attitudes about nutrition at SD Negeri Kedunguter 01 Brebes.

Table 1. Characteristics of Respondents

Age	N%	
9 - 10	43	41.7
11 - 12	60	58,3
Total	103	100.0
Type Sex		
Man	50	48,5
Woman	53	51,5
Total	103	100.0

From table.1 it can be seen that the most samples are the age group of 11-12 years as many as 60 people (58.3%), the age group 9-10 years are 43 people (41.7%). Age of school children (7-12 years) is an age group that is still experiencing growth and development and requires sufficient and appropriate nutrition to support their growth and development, but at this time children have poor eating habits so nutrition education needs to be given as a one way to overcome the problem of nutrition in school children. [2]

Gender is the difference between women and men biologically from birth. The sample distribution based on male gender is 50 people (48.5%) and female sex is 53 people (51.5%), as presented in the following table.

Table 2 . Characteristics of Respondents based on Knowledge and Attitudes about nutrition

Variable	Means \pm SD	Max-Min
Knowledge		
Pre-test	4.80 \pm 1,833	10 - 2
Post-test	8.38 \pm 1.422	10 - 3
Attitude		
Pre-test	16.30 \pm 5,421	29 - 10
Post-test	26.26 \pm 1,857	29 - 21

Table. 2 shows that the average pre-test score for knowledge of SD Kedunguter 01 students is 4.80 with a maximum score of 10 and a minimum score of 2, while the average post-test score for SD Kedunguter 01 students' knowledge after being given nutrition education is 8.38 with the maximum value is 10 and the minimum value is 3. From these results, it turns out that there is a change in the average knowledge of SD Kedunguter 01 children after being given nutrition education, namely 3.58.

The average pre-test score for SD Kedunguter 01 students' attitudes was 16.30 with a maximum score of 29 and a minimum score of 10, while the average post-test score for SD Kedunguter 01 students' attitudes after being given nutrition education was 26.26 with a maximum score of 29 and the minimum score is 21. From these results, it turns out that there is a change in the average knowledge of SD Kedunguter 01 children after being given nutrition education, namely 9.96.

Table 3. The effect of education on knowledge

Variable	
NMeanStd.Deviationp-value knowledge	
Pre-Test	1034,801,8330,000
Post-Test	1038,381,422

Table 3 shows that the average value of nutrition education on knowledge about nutrition at the time of the pre-test was 4.80 and the average value of knowledge at the time of the post-test was 8.38. Based on these results, the average increase was due to the media nutrition education counseling used media that is easily understood by respondents. From the results of statistical tests using the paired T-test which showed that the value of $p = 0.000$ ($p < 0.05$) which means that there is an effect of nutrition education on knowledge about nutrition in students of SD Negeri Kedunguter 01.

Knowledge is one of the factors that influence a person's actions, if a person has good knowledge of nutrition then one's actions and behavior towards nutrition will also be good. Knowledge of General Guidelines for Balanced Nutrition is very important to be introduced early on in the community. One way to increase the knowledge of school-age children is through education. Health and nutrition education programs as a way to implement global health interventions in a simple and effective way to obtain broader education. [7] Knowledge of nutrition includes knowledge related to food and nutrients, sources of nutrients in food, food safe for consumption so it does not cause disease and how to process food properly so that the nutrients in food are not lost and how to live healthily. Knowledge Nutrition will affect food intake that enters the body, because nutritional knowledge provides information related to nutrition, food and its relationship to health. [8]

These results are in accordance with the theory which states that the more the five senses are used when presenting material, in this case the use of nutritional media (comics), the more it will generate interest and interest in students so that the message conveyed becomes much more easily accepted, especially for children. school age. [9]

Balanced nutrition education is important to increase knowledge about nutrition for school children. Efforts to increase nutritional knowledge through counseling are the right steps to be taken and supported by traditional healers who care about school children. This is in line with research conducted by Ghani Nirmala, (2019) concerning "The Influence of Nutrition Education About Vegetables on Knowledge and Attitudes and Portion of Vegetable Consumption in Children of SD Negeri 105349 Paluh Kemiri". about the nutrition of school children and is also in line with Susanti's research, (2015) stating that there was a significant increase in knowledge after being given health education interventions using print media of 81.46%. This is because print media can display images and language that is easily understood by the target audience. [10]

Table 4. Effect of Nutrition Education on Attitudes about Nutrition

Variable	
NMeanStd.Deviationp-value attitude	
Pre-Test	10316,305,4210,000
Post-Test	10326,261,857

Table 4 shows that the average value of nutrition education on attitudes about nutrition at the time of the pre-test was 16.30 and the average value of attitudes at the time of the post-test was 26.26. Based on these results, the average increase was due to leaflets, projectors and teaching aids. make it easier for students to receive messages and find out the contents of balanced nutrition messages that have been illustrated in leaflets. Nutrition promotion is essentially an activity or effort to convey health nutrition messages to the public, groups or individuals (individuals). It is hoped that with this message, communities, groups or individuals can gain better knowledge about nutrition and health. This knowledge is then expected to form a good attitude, and in the end is expected to influence the actions or behavior of nutrition and health on the target. [11]

From the statistical test results using the paired t-test which showed that the value of $p = 0.000$ ($p < 0.05$) which means that there is an effect of nutrition education on attitudes about nutrition in Kedunguter 01 Public Elementary School students. Balanced nutrition attitudes show positive changes, especially seen around the consumption of a variety of foods and the selection of food types. [12]

This is in line with research conducted by Indraswari, SH (2019) concerning "The Effect of Nutrition Education with Posters and Nutrition Cards on Increasing Children's Knowledge and Attitudes about Balanced Nutrition at SDN Ploso 1-172 Surabaya". nutrition experienced a change in attitude between before being given counseling and after being given counseling on balanced nutrition with media leaflets, projectors and props, and experiencing an increase in attitude in school children.

4. CONCLUSION

Based on the results of this study, there is an influence of nutrition education on knowledge and attitudes about nutrition in students of SDN Kedunguter 01 Brebes.

5. REFERENCES

- [1] Nuryanto N, Pramono A, Puruhita N, Muis Sf. The Effect of Nutrition Education on Knowledge and Attitudes About Nutrition in Elementary School Children. Indonesian Nutrition Journal (The Indonesian Journal Of Nutrition). 2014;3(1):32-6.
- [2] Marisa M, Nuryanto N. The Influence of Nutrition Education Through Balanced Nutrition Comics on Knowledge and Attitudes of Students at Bendungan Elementary School in Semarang (Doctoral Dissertation, Diponegoro University). 2014
- [3] Department Of Health, Human Services, Washington, Dc., Healthy People 2010 (Group), United States Government Printing Office. Healthy People 2010: Understanding And Improving Health. Us Department Of Health And Human Services; 2000.
- [4] Sinaga T. Nutrition Theory & Application. Jakarta: EGC; 2016.
- [5] Irnani H, Sinaga T. The Influence of Nutrition Education on Knowledge, Balanced Nutrition Practices and Nutritional Status in Elementary School Children. Indonesian Nutrition Journal (The Indonesian Journal Of Nutrition). 2017 Dec;6(1):58-64.
- [6] Maslakah N, Setiyaningrum Z. The Influence of Flashcard Media Education on Children's Knowledge About General Guidelines for Balanced Nutrition in Muhammadiyah 21 Elementary School, Baluwarti Surakarta. Health journal. 2017 Dec 20;10(1):9-16.
- [7] Judarwanto W. Anticipation of School Children's Eating Behavior. Bogor Agricultural Institute. 2006.
- [8] Aulia, NR (2021). The Role of Nutritional Knowledge on Energy Intake, Nutritional Status and Nutritional Attitudes in Adolescents. Scientific Journal of Nutrition and Health (JIGK), 2(02), 31-35.
- [9] Nugroho A. The effect of nutrition education media (comics) on increasing knowledge and changes in body weight in elementary school children with obesity. Health Journal. 2018 May 25;9(1):57-63.
- [10] Notoatmodjo. Health Research Methods. Jakarta: Rineka Cipta 2012
- [11] Empress GN. Promotion of nutrition on the attitude of fond of eating fish in school-age children. JHE (Journal of Health Education). 2018 Sep 19;3(1):1-6.
- [12] Kurdanti W, Khasana TM, Fatimah AS. The Effect of Nutrition Promotion Media on Increasing Knowledge, Attitudes and Behavior of Nutrition in Elementary School Students. Indonesian Nutrition. 2019 Oct 30;42(2):61-70.