

The Effect of Education with Poster Media on the Knowledge of School-Age Children about Healthy Eating Patterns at SDN X Palangka Raya

Pini Sriayu¹, Lamia Diang Mahalia^{2*}, Harlyanti Muthma'innah Mashar³
Nutrition Department, Poltekkes Kemenkes Palangka Raya

Corresponding Author: Lamia Diang Mahalia lamiadiang@polkesraya.ac.id

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ABSTRACT

Primary school-age children with a good healthy diet will have a good nutritional status. Elementary school-age children are one of the groups that are very prone to malnutrition. Based on a preliminary study conducted at SDN X Palangka Raya on 10 students, there were 5 students (50%) who experienced nutritional problems with 3 categories of thinness and 2 categories of obesity. Therefore, it is important to provide education related to healthy eating patterns early on to children. One of the media that can be used to provide education is posters. The purpose of this study was to analyze the effect of education using poster media on the knowledge of school-age children about healthy eating patterns. This is a quasi experimental study with one group pretest and posttest design. The subjects in this study were class V students totaling 37 people. The data obtained were statistically analyzed using the Wilcoxon test. There was an increase in knowledge after being given education with poster media as much as 40,54% including the good category and 54,06% including the sufficient category. Statistical analysis showed that there was an effect of education using poster media on students' knowledge about healthy eating patterns ($p = 0,00$).

INTRODUCTION

It is very important at a child's age to eat a balanced and varied diet, including fruits, vegetables, meat, fish, eggs and nuts. A balanced and regular diet aims to provide all the nutrients a child's body needs. The age prone to nutritional problems is in the group of school-age children, which can be caused by insufficient food intake (Syahrul et al., 2016).

Data from the 2018 Global Nutrition Report show the incidence of stunting in children in the world is 23,8%. Indonesia is ranked 17th out of 117 countries. The 2018 Riskesdas data shows a percentage of 3,9% of malnutrition in children under five and 13,8% who are malnourished. In the Central Kalimantan region alone, the case of malnourished children is 21,81%, and in the city of Palangka Raya the prevalence of malnourished school-age children is 21,52%.

Primary school age is an important period in children's growth and development. In this age range, children are in an active growth stage, both physically and mentally. Significant changes occur in height, weight, brain development and motor skills. School-age children are normally in the age group of 5-12 years old (Lima et al., 2021; Saavedra & Prentice, 2023).

At school age, children's growth and development are still greatly influenced by their surroundings. Monitoring and coaching by parents plays an important role in their overall development. Early identification of health problems is indeed one of the significant benefits of parental monitoring. Setting a healthy diet and balanced nutrition needs to be done by parents so that children's nutritional fulfillment is met (Ma & Hample, 2018; Scaglioni et al., 2018).

Improper diet will lead to nutritional problems in children. This can be caused by a lack of knowledge about balanced meals and adequate nutrition to maintain health. Lack of certain nutrients can cause health problems such as lack of energy, lack of concentration, and growth disorders (Hamzah et al., 2020). It is important to overcome nutritional problems in school-age children by educating children about the types of healthy foods that should be consumed every day. Education about healthy eating through posters is an effective approach to improve children's knowledge and attitudes (Chan et al., 2022).

Interventions using poster media can increase children's knowledge. The content of the poster presents interesting images that will create an attraction for children. Education using poster media causes significant changes in children's knowledge (Hasanica et al., 2020).

Preliminary studies conducted at SDN X Palangka Raya on 10 people showed that there were 5 students who experienced nutritional problems with 3 categories of thinness and 2 categories of obesity. It is important to provide early education to school-age children so that children's knowledge in implementing a healthy diet can increase.

THEORETICAL REVIEW

School-age children are children aged 7-12 years. In children aged 7-12 years, significant changes occur in biological, cognitive, psychosocial, social and spiritual development (Setyawati, 2020). At the stage of development of school-age children, children are expected to be able to meet their needs with a healthy diet (Sari et al., 2022).

Dietary changes can occur in school-age children. Vegetable and fruit consumption is still low in children. In school-age children, the need for nutrients begins to have more proportions (Afifah et al., 2022). In children aged 7-9 years, children are good at determining their preferred foods because they are familiar with the environment. Many children like snack foods that can reduce children's appetite (Ruswadi, 2022). Factors that influence diet are related to eating behavior in children so that it can cause malnutrition and result in nutritional imbalances in the food consumed and the occurrence of infectious diseases. Meanwhile, undernutrition can increase the risk of infectious diseases, slow growth and development and reduce intelligence levels (Qolbi et al., 2020).

In general, food security in the family, parenting patterns and health services are factors that are indirectly related to the level of education, nutritional knowledge and family skills and the level of family income (Arlis et al., 2017). In research by Fauziyah et al. (2022) stated that low knowledge affects the diet of school-age children which will also have an impact on their nutritional status.

Nutritional status is the state of health of the body thanks to the intake of nutrients through food and drink which is related to needs (Budi Sutomo dan Anggraini, 2019). Nutritional status is an expression of the balance of nutrients with the body's needs, which is realized in the form of certain variables (Hidayati, et al., 2019). Nutritional status assessment is carried out to obtain information about the prevalence of geographic distribution of nutrition (Sulfianti et al., 2021). Nutritional status can be determined through laboratory examinations or anthropometric measurements. Anthropometry can be done by calculating the Body Mass Index (Natalia, 2022).

Nutritional knowledge is an important factor in nutritional status and food consumption. Nutritional knowledge is related to menu provision and selection, food selection and processing, and determining food consumption patterns (Suriyati et al., 2021). In Amira and Stefania's research (2021) stated that there were changes in students' knowledge about healthy snacking patterns after being given nutrition education, and one of the factors that increase students' knowledge is by providing nutrition education about healthy food. Various efforts can be made to improve children's knowledge and attitudes about healthy eating patterns. Children can be given education, one of which is through poster media (Syam et al., 2018).

Posters are media containing messages or health information that are usually posted on walls, and strategic places. The habit is notification and propaganda. A poster is a short message conveyed in the form of writing and pictures that aims to influence someone to be interested in something on the

poster. If someone reads the poster many times, the education conveyed in the poster can be understood and also the attractive poster media is a special attraction for respondents. Thus, poster media contributes to respondents' knowledge and attitudes about healthy eating (Sumartono & Astuti, 2018).

Education is a communication process between students and researchers. Posters are the media of the educational process. This is intended to avoid verbalism in the educational process. Posters are usually 50 x 60 cm in size, word layout and poster colors should be attractive (Raidanti, 2022).

The hypothesis in this study is: There is a significant influence between providing education with poster media about healthy eating patterns on the knowledge of school-age children at SDN X Palangka Raya.

METHODOLOGY

The design of this research is Quasi Experiment using one pretest-posttest group. The subjects were fifth grade students at SDN X Palangka Raya, totaling 37 students. The data collected included the age and gender of students, as well as data related to student knowledge using a questionnaire instrument.

Students' knowledge about healthy eating patterns was measured using a questionnaire that had been previously tested (r count > r table and reliable test results). The data analysis used was Wicoxon. This study has received ethical approval from the Health Research Ethics Commission of Poltekkes Kemenkes Palangka Raya with No. 267VII/KE.PE/2022.

RESULTS

Characteristics of the subjects

The characteristics of the subjects are based on age and gender. The subjects were in the age range of 10-12 years old. A total of 10 students (27%) were 10 years old, 18 students (48%) were 11 years old, and 9 students (25%) were 12 years old. Characteristics based on gender showed that there were more male students, namely 20 people (54%) and 17 female students (46%) (Table 1).

Table 1. Characteristics of the subjects

| Subject Characteristics | n | % |
|--------------------------------|----------|----------|
| Age | | |
| 10 years old | 10 | 27 |
| 11 years old | 18 | 48 |
| 12 years old | 9 | 25 |
| Total | 37 | 100 |
| Gender | | |
| Male | 20 | 54 |
| Female | 17 | 46 |
| Total | 37 | 100 |

Subject knowledge

Based on Table 2, it can be seen that most of the students showed an increase in knowledge after being given education. Before being given education, 78,37% of students had knowledge that fell into the insufficient category. After being given education, there was an increase in percentage. As many as 40,54% of students were in the good category and 54,06% were in the sufficient category. The results of statistical analysis obtained a value of $p=0,00$ which show there is a significant difference between knowledge before and after the being given education.

Table 2. Pre-test and post-test results related to subject knowledge

| Category | Pre-Test | | Post-Test | |
|--------------|-----------|------------|-----------|------------|
| | n | % | n | % |
| Good | 1 | 2,71 | 15 | 40,54 |
| Enough | 7 | 18,92 | 20 | 54,06 |
| Fair | 29 | 78,37 | 2 | 5,40 |
| Total | 37 | 100 | 37 | 100 |

DISCUSSION

The age of 10-12 years is the age of transition from children to adolescence (Sulistiani & Hanum, 2020). The age of 10-12 years is the ideal age to be given education because it tends to be easier to capture the material presented. Their readiness and ability to receive material is expected to affect changes in knowledge in students. Age that is lower than the age it should be, in the class that should have an impact on the ability to capture less (Jelita & Putra, 2021).

During school age, children are more likely to find themselves and will be greatly influenced by what happens in the surrounding environment. During the school-age period is important to provide a positive influence to shape children's character (Kartika, 2020). School-age children can be targeted in carrying out effective health promotion because they are very sensitive to accepting change. At this age is a time when a child begins to have high interest and curiosity, and begins to be interested in imitating the surrounding environment including the food patterns of the surrounding environment (Naeeni et al., 2014; Nuranisah & Kurniasari, 2020; Razzak et al., 2016).

Nutrition education with poster media contains material about healthy eating patterns. The purpose of providing poster media is to make it easier for elementary school students to understand the material presented. When education is carried out with poster media in elementary school children, there are changes between before and after education, namely an increase in children's knowledge (Sagita et al., 2022).

During the education, it was seen that students in fifth grade class were excited and very enthusiastic to want to know about nutrition and healthy eating patterns, presented through attractive images and colors on posters depicting fruits and vegetables. Poster media presented with attractive images will greatly affect the curiosity of elementary school students to want to understand the material presented (Effendy et al., 2022).

In line with the research of Sagita et al. (2022) which states that the provision of poster media has a very positive impact on children's knowledge because it is supported by attractive animated or miniature images. Education with poster media provides significant differences in knowledge and attitudes related to healthy food (Sagita et al., 2022; Salma & Ratih Kurniasari, 2022).

Education about healthy eating patterns can be obtained from various sources of information, including poster media. Poster media can be an informal source of knowledge. This media is basically a health promotion tool. Knowledge about healthy eating patterns can not only be obtained at a certain level of education, but also through various sources of information, and participation in educational activities (Anggraeni & Sudiarti, 2018; Darni, 2020).

When research was conducted at SDN X Palangka Raya, there were still many fifth grade students who did not know about the components of 3 nutrients in the body, energy nutrients, regulating nutrients and building nutrients. In addition, there are still students who do not know examples of food sources of carbohydrates and sources of vitamins. Degerative diseases in children can be prevented early by implementing healthy and nutritious feeding from an early age because nutritional problems in school-age children are nutrient deficiencies or excess nutrients (Fitri et al., 2020).

Nutrition education can reduce mild stunting in children. The causes of nutritional inadequacy and imbalance include having an unhealthy diet, such as eating starchy foods but few animal products, fruits and vegetables, as well as not having sufficient knowledge about nutrition (Kivrak & Altın, 2018; Melaku et al., 2018). Adequate knowledge can change eating habits to be healthier and thus play a role in avoiding negative effects and become the basis for good health in adulthood. Nutrition education is 1,67 times more effective in improving nutrition knowledge, including healthy eating patterns (Melaku et al., 2018; Razzak et al., 2016).

In school-age children, children are not only at home but also at school. School is where children spend almost half of their time. Parents cannot fully monitor what is consumed or what snacks are eaten by children while at school. Educational programs and experiences gained from school can influence the development of attitudes and habits. Healthy dietary habits should be introduced during elementary school (Kivrak & Altın, 2018).

CONCLUSIONS AND RECOMMENDATIONS

Education with poster media about healthy eating patterns has an effect on the knowledge of school-age children at SDN X Palangka Raya. The education can increase the number of students who have knowledge in the good category related to knowledge about healthy eating patterns.

FURTHER STUDY

This study only used one treatment group, without a control group. In the future, it is hoped that someone can continue this research by using control groups and treatment groups with more variations.

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