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## Research Article

# The Effectiveness of Health Education Using Falshback and Video Methods on Balanced Nutrition Knowledge Among Children in Elementary School

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### Abstract

**Aims:** This study aims to assess the efficacy of nutrition education using flipcharts and movies in enhancing the knowledge of Balanced Nutrition among elementary school students at SDN 1 Bina Karya Jaya, Putra Rumbia District, Central Lampung Regency in 2023.

**Method:** The study used the Pretest-Posttest Control Group Design methodology to investigate 44 students at SDN 1 Bina Karya Jaya in Putra Rumbia, Central Lampung Regency.

**Result:** The results showed that there were differences in the effectiveness of health education flipcharts and video methods on knowledge of balanced nutrition in students at SDN 1 Bina Karya Jaya, Putra Rumbia District, Central Lampung with a p-value of 0.000.

**Conclusion:** To enable teaching staff to collaborate closely with health workers in order to provide frequent health education on proper nutrition for school-age children, therefore preventing nutritional issues in children.

### Keywords :

**Children, Elementary School Students, Health Education, Knowledge, Nutrition Education**

## INTRODUCTION

Child health is the main focus of major health problems throughout the world, especially in developing countries. Development is expected to improve all aspects with some focus on reducing child mortality rates. A number of health issues plague development projects; one of the most pressing is the prevalence of malnutrition among children, which is exacerbated by a lack of understanding and training in child care. In order to prevent nutritional disorders in children, it is important for health workers to collaborate closely with teaching staff so that regular health education on fulfilling nutrition can be carried out in school-aged children. (1)

Nutritional problems are one of the factors that determine the quality of human

resources (HR) which is an important factor in the implementation of national development. Good nutrition will certainly produce quality human resources, namely healthy, intelligent, physically strong, and productive. Efforts to improve nutritional status to achieve quality human resources in the future must start early, one of which is in elementary school children as the next generation of the nation. Elementary school children are an age group that is vulnerable to malnutrition, overnutrition, and obesity (2)

School-age children are an age group that is vulnerable to nutritional problems. The World Health Organization (WHO) states that more than 667 million children in the world experience nutritional problems,

dominated by school-age children (3). The results of the Indonesian Nutritional Status Survey (SSGI) state that nationally the prevalence of malnutrition in school children is 20.4%, while the prevalence of malnutrition in school-age children in Lampung Province is 19.57% in 2021 and 14.59% in 2022 (4). Balanced Nutrition Guidelines (PGS) are guidelines that contain a daily food composition that contains nutrients in types and quantities according to needs. PGS recommends four pillars related to nutritional behavior to be applied every day. The four pillars of balanced nutrition are consuming a variety of foods, behaving in a clean and healthy lifestyle (PHBS), doing physical activity, and monitoring body weight regularly to maintain normal body weight (5,6). The problem of food consumption that is not in accordance with the PGS can be influenced by low nutritional knowledge and practices. PGS socialization for school children is needed to overcome this problem. School children are the target group of people who are easy to accept and apply new information. 1 PGS socialization activities provided early on will have a major impact on children's health in the future (7)

A top focus in industrialized nations is improving people's eating habits and providing them with more nutrition education. In an effort to improve children's nutritional status and decrease hunger, the term "school feeding" is used. 4 By reducing the number of students who skip breakfast and enhancing their quality of life, school meals under the supervision of nutritionists has a good influence. 5 Unfortunately, not all Indonesian schools have adopted the national school lunch program. There is a connection between nutrition education, knowledge, and reality (8,9)

When it comes to shaping one's actions, knowledge is king. Providing health education is one way to help mothers learn more about their bodies. Providing people with the knowledge and skills they need to make positive lifestyle choices is the goal of

health education. The goal of health education is to shift people's and communities' understanding of health issues and their actions toward more positive ones (10).

Health education is an effort made by health workers that aims to increase public knowledge in the health sector. Information obtained through health education will have a short-term impact (immediate impact) resulting in changes or increased knowledge. Health education provided through various media will influence public knowledge about new innovations (10). Immediate changes or enhanced understanding can occur as a result of health education information, which has a short-term influence. Innovations in health education can impact public knowledge of new technologies through the development of these mediums. A lot of people's views and ideas are shaped by the health education they get. Health care providers primarily convey information to patients, but they also convey messages with suggestions that can influence their opinions. When fresh data becomes available, it lays a fresh cognitive groundwork for future knowledge acquisition (10).

An first survey was carried out by researchers in the month of June 2023 in SDN 1 Bina Karya Jaya, which is located in the Putra Rumbia District of the Central Lampung Regency. The preliminary survey was carried out by conducting interviews with ten students from SDN 1 Bina Karya Jaya. The results show that the survey was successful. The results of the interview showed that 9 out of 10 students had poor knowledge about fulfilling nutritional needs. An interview was also conducted with the Principal of SDN 1 Bina Karya Jaya, who said that health education about fulfilling balanced nutrition had never been done before. Based on the background above, the researcher is interested in conducting a study entitled "The effectiveness of nutrition education between flipcharts and videos on knowledge about balanced nutrition for

elementary school students at SDN 1 Bina Karya Jaya, Putra Rumbia District, Central Lampung Regency in 2023".

## METHODS

The participants in this study were 44 kids who were enrolled in the fifth grade at SDN 1 Bina Karya Jaya, which is located in the Putra Rumbia District of the Central Lampung Regency. The participants in this study were kids who were enrolled in the fifth grade at SDN 1 Bina Karya Jaya. Using flipcharts and films, this study investigates the

effectiveness of nutrition education on the knowledge of elementary school students. The research focuses on the effectiveness of nutrition education. The research design for this study is a Quasi Experiment (Non Equivalent Group Control) research design, and the Pretest-Posttest Control Group Design was utilized. This study is statistical in nature. I utilized Total Sampling for my sampling. The sample formula for the average difference hypothesis test is utilized in the process of calculating the size of the sample collection.

## RESULTS

### Univariat Analysis Result

**Table 1. Frequency distribution of respondents' knowledge about balanced nutrition after being given nutrition education using flipchart media at SDN 1 Bina Karya Jaya, Putra Rumbia District, Central Lampung Regency in 2023.**

Knowledge	Frequency	Persentase
Less	0	0,0
Enough	22	100,0
Good	0	0,0
<b>Jumlah</b>	22	100

Based on table 1, it is known that all research respondents have knowledge in the sufficient category.

**Table 2. Frequency distribution of respondents' knowledge about balanced nutrition after being given nutrition education using video media at SDN 1 Bina Karya Jaya, Putra Rumbia District, Central Lampung Regency in 2023.**

Knowledge	Frequency	Persentase
Less	0	0,0
Enough	16	72,7
Good	6	27,3
<b>Total</b>	22	100

Based on table 2, it is known that the majority of respondents have knowledge in the sufficient category, namely 16 respondents (72.7%).

### Bivariat Analysis Result

**Table 3. Effectiveness of health education using flipchart and video methods on knowledge of balanced nutrition in students at SDN 1 Bina Karya Jaya, Putra Rumbia District, Central Lampung.**

Group	n	Mean	Std. Deviation	Std. Error Mean	p-value
Knowledge Flip Sheet	22	6,05	,653	,139	0,000
Video	22	7,23	,528	,113	

The results of the statistical test with the T-Independent test obtained a p-value of 0.000, meaning  $p < \alpha$  (0.05), the hypothesis is proven, so it can be concluded that there is a difference in the effectiveness of health education using flipchart and video methods on balanced nutrition knowledge in students at SDN 1 Bina Karya Jaya, Putra Rumbia District, Central Lampung. The results of this study also show that the average value of respondents who were given education using video media was higher than respondents who were given education using flipchart media.

## DISCUSSION

### Respondent Knowledge Group Flip Sheet

According to the findings of the research, it is known that the average score of respondents who were provided with instruction through the use of flipchart media was 6.05, the lowest score was 5, and the highest score was 7. The findings of this study are consistent with those of a study that was carried out by Azzahroh and titled The influence of flipchart media and animated videos on the knowledge and attitudes of elementary school pupils in East Jakarta about sexual reproduction. A p-value of 0.000 indicates that the findings of this study suggest that classroom instruction that incorporates flipchart media can lead to an increase in the level of information possessed by pupils (11).

Knowledge is the goal of health education, which is an activity that aims to increase knowledge, particularly in the health sector. A short-term impact, also known as an immediate impact, will be caused by the information that is received through health education. This will result in changes or an increase in understanding. Education on health that is disseminated through a variety of media will have an effect on the knowledge of new advances. (10).

When used as a medium for the implementation of health education, flipcharts offer a number of benefits.

However, posters have the disadvantage that they require the capacity to read the contents of the poster (translate visual signals), that they cannot be transported anywhere, and that they require experience to make. Flipcharts, on the other hand, tend to be easier, and their shape is appealing since they are dominated by visual features. A poster is a short message in the form of an image, which aims to influence someone to be interested and act on something. Then the poster is very suitable for use as a follow-up to a message that has been previously conveyed (12). According to the researcher's view, flipcharts are an effective medium as a health promotion medium. This media is considered beneficial in terms of the scope of the message conveyed, able to integrate primary targets, secondary targets, and tertiary targets in one health promotion effort. The use of flipcharts interactively can fulfill aspects of involvement (primary targets), make it easier for officers to convey messages (secondary targets), and be able to provide input for policy makers (tertiary targets) in the context of evaluating and following up on handling programs that have been and will be implemented.

### Video Group Respondent Knowledge

The findings of the research indicated that the average score for respondents who were provided with education through the use of video media was 6.91, with the lowest score being 6 and the highest score being 7. The results of this study are in line with the study conducted by Putri (13) with the title The effect of nutrition education using audio-visual media (video) on knowledge and attitudes of balanced nutrition. The results of this study indicate that there is an effect of education with audio-visual media (video) on students' knowledge with a p-value of 0.000 (14).

Children of school age can have their knowledge of balanced nutrition increased through the use of audiovisual media in health education. This is due to the fact that the media utilized can grab the attention of respondents by exhibiting real visuals and

sounds from balanced nutrition content. Additionally, the counseling material that is shown in the movie is simple to comprehend due to the fact that it gets right to the heart of the matter at hand and makes use of phrases that are not tough to comprehend. Due to the fact that it engages the two senses that are most capable of taking in information, namely the senses of sight and hearing, the utilization of audiovisual media in the field of health education leads to the acquisition of a greater amount of information by the participants (15).

The researcher is of the opinion that the teaching and learning process, along with the utilization of various forms of media, has the potential to improve the learning activities of students over a considerable amount of time. The implication is that the learning activities of students that involve the use of media will result in superior learning processes and outcomes compared to those that do not involve the use of media. Both the features of the media and the selection of the media are essential components in the process of creating learning techniques (16).

### **The effectiveness of health education using flipchart and video methods on knowledge of balanced nutrition**

A p-value of 0.000 indicated that there was a significant difference between the effectiveness of health education using flipchart and video methods on students' knowledge of balanced nutrition at SDN 1 Bina Karya Jaya, Putra Rumbia District, Central Lampung. The results of the statistical test with the T-Independent test showed that there was a notable difference in the effectiveness of health education. The findings of this study also revealed that the average value of respondents who were educated through the use of video media was higher than the average value of respondents who were educated through the use of flipchart media.

This is in accordance with the findings of a study that was carried out by Putri (13) and titled The influence of nutrition education

utilizing audio-visual media (video) on knowledge and attitudes on balanced nutrition. A p-value of 0.000 indicated that there was a significant impact of teaching via audio-visual medium (video) on the level of knowledge possessed by students, as demonstrated by the findings of this study (13).

Health education is an effort that aims to increase knowledge, especially in the health sector. Information obtained through health education will have a short-term effect (immediate impact) so that it results in changes or increases in knowledge. Health education provided through various media will influence knowledge about new innovations (17). Respondents are provided with fresh information through the process of health education. An individual who is provided with health education will react to the stimulus that is received in the form of an action or practice. This means that the researcher will supply a stimulus in the form of new knowledge, which will be evaluated by the individual who is receiving the health education. Obtaining fresh information is probably something that the respondent feels the need to do in order to convince themselves that the information is worthy of being accepted and carried out. This is demonstrated by the fact that the respondent's knowledge and skills scores after receiving health education were higher than those the respondent had received before to receiving health education (18).

It is possible for the information that is gained through health education to have an instant impact, which is a short-term influence, which can result in changes or greater knowledge. The emergence of technology as a medium for health education has the potential to alter the extent of the respondent's knowledge. Education on health has a significant impact on the formation of people's views and beliefs, and this influence is significant. Aside from the primary responsibility of disseminating knowledge, health personnel are also responsible for carrying messages that contain recommendations that can influence

an individual's viewpoint. The establishment of new cognitive foundations for the production of knowledge about something is made possible by the existence of new information about that object (19).

Children of school age can have their knowledge of balanced nutrition increased through the use of audiovisual media in health education. This is due to the fact that the media utilized can grab the attention of respondents by exhibiting real visuals and sounds from balanced nutrition content. Additionally, the counseling content that is supplied in the movie is simple to comprehend due to the fact that it gets right to the point of the conversation and makes use of language that are not tough to comprehend. Due to the fact that it engages the two senses that are most capable of taking in information, namely the senses of sight and hearing, the utilization of audiovisual media in the field of health education leads to the acquisition of a greater amount of information by the participants (20). According to researchers, health education is an activity that can effectively disseminate messages and information to children. Health education can also instill confidence, so that people are not only aware, know and understand, but also want and can carry out recommendations related to health. Health education delivered using language and media that are easy to understand is one effort to increase respondents' knowledge. The use of video media in providing health education counseling on fulfilling balanced nutrition has a significant impact on the understanding of elementary school children.

## CONCLUSIONS

As a result of receiving nutrition education using flipchart media, the knowledge of the respondents is known to be sufficient for 22, which is one hundred percent of the total respondents. After receiving nutrition education through video media, the knowledge of the respondents is known to

have sufficient knowledge of 16 of the respondents, which accounts for 72.7% of everything. A p-value of 0.000 indicates that there is a significant difference between the effectiveness of health education using flipchart and video methods on students' awareness of balanced diet. This difference was found among students at SDN 1 Bina Karya Jaya, which is located in the Putra Rumbia District of Central Lampung.

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