**Effevtiveness Health Education Using Audio Visual With Lectures And Poster With Lectures Of Changes In Behavior Selection Of Snacks In Tulungagung Elementary School**

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**ABSTRACT**

Keywords: Health Education, Audio Visual, Poster Media, Behavior, Snacks

Selection of snacks is the embodiment of behavior. To change behavior which is well lit can start with giving information to increase the knowledge of the child so it will be awareness and causing changes in behavior. The purpose of this research was to analyze the differences health education using audio visual with lectures and poster with lectures of changes in behavior selection of snacks on the fifth grade in 1 and 2 Kenayan Tulungagung Elementary School.

The research design was quasy experimental design by non-equivalent control grup. The population is all the students snacks on the fifth grade in 1 and 2 Kenayan Tulungagung elementary school with a sample of 78 respondents on total sampling. The data obtained from the kesioners and processed by using wolcoxon statistic and mann-whitney.

The result of the research, half more of the respondents by using audio visual is in the good category that 28 respondents (72%), and half of the respondents by using poster media is in the good category that 19 respondents (48,7%).

Statistical test result obtained P value 0.022 < α 0.05 then H0 is rejected and H1 is accepted which means there is a differences health education using audio visual with lectures and poster with lectures of changes in behavior selection of snacks on the fifth grade in 1 and 2 Kenayan Tulungagung Elementary School.

Health education using audio visual is more effective in changing the behavior of child snacks election because in audio visual not just using images but also using sound.

**BACKGROUND**

In general, every day students spend half to one full day in the school environment with various activities. The higher the education level, the more diverse the activities. Students need energy to do their activities well. According to Supriasa (2012), energy can be obtained from carbohydrates, proteins and fats. So to meet the energy of the school environment by eating snack foods sold in the stalls, canteen or street food vendors around.

According to BPOM RI (2013) showed that 99% of schoolchildren buy snacks in schools. The results of the survey in 6 cities (DKI Jakarta, Serang, Bandung, Semarang, Yogyakarta, and Surabaya), 72.08% positive contain substances that are very harmful to health. Snacks in these schools contain chemicals that are strictly prohibited to be mixed into foods and beverages, such as formaldehyde, borax, dyestuff B and methanyl yellow (Kompasiana, 2013). BPOM survey results in 2013, also found that almost all schools in Surabaya, school snacks contain harmful materials sold by traders outside the school yard. In holding a school snack test, BPOM directly tested school snacks dilabiratorium around and from some positive food mengadung mengadung dangerous materials such as ice syrup containing rhodamin, crackers and pentols contain borax, tofu noodles and meatballs containing formalin (Ardiantofani, 2013).
Based on preliminary study conducted by researchers at SD Negeri 1 and 2 Kenayan Tulungagung, obtained the data of grade 5 students as much as 78 students. From the results of interviews on 10 students it is known that 8 students have experienced strep throat, cough, runny nose and diarrhea this happens because often buy snack foods from outside school traders with types of snack foods purchased outside the school are papeda, pentol, cimol, top ice, ice marimas, leaker, juice tea. While 2 students bought food in the school cafeteria in the form of yellow rice, soy milk essence and others. The policy of the merchant school may sell around the school environment in the sense that it is outside the school fence, as long as it maintains cleanliness. However, school-controlled hygiene observations for traders selling outside the school fence are clean places where food, food and food handling can not be controlled by the school.

Hazards that threaten the health of school children due to snack behavior should be considered by all parties such as parents, the school, and the health department. Selection of snack foods is a manifestation of behavior. Factors that influence the formation of behavior in the form of internal and external factors. Knowledge is an internal factor that affects the choice of food snacks. This knowledge in particular includes knowledge of nutrition, intelligence, perception, emotions, and external motivation. Education and knowledge are indirect factors that influence one's behavior (Bondika, 2011).

Audio-visual media is the most appropriate tool for school-aged children because the audio-visual media has the elements of sound and image elements that can be seen (Vienna, 2010). In addition to audio visuals, the poster media can also be used as a health education method as it contains pictures shown as notices or warnings (Musfiqon, 2012).

Efforts to socialize and deliver nutritional messages as part of nutrition education are important elements to improve people's nutritional knowledge. Education on nutrition should start from an early age. (Kartono, 2007). The most appropriate child is given a nutrition education is a 5th grader because according to Piaget in Padmono (2002) the development of 5th graders is in the concrete phase of operation that is children are able to think logically, flexibly, and draw conclusions from the available information. The purpose of this research is to know the difference of Health Education through Audio Visual with Lecture and Poster with Lecture to Change Behavior of Food Election of Primary Grade Food of 5th Grade in SD Negeri 1 and 2 Kenayan Tulungagung.

RESEARCH METHODS

The design of this research is quasy experimental design with non-equivalent control group approach. The population is all 5th graders in SDN 1 and 2 Kenayan Tulungagung with a sample of 78 respondents in total sampling. Data were obtained from questionnaires and treated with statistical tests of wolcoxon and mann-whitney.
RESULTS
Characteristics of the Subject
Table 1. Characteristics of respondents in this study consisted of 2 (two) treatment groups that are visual audio and poster covering the age, sex, and behavior of student's snack selection before and after given treatment through audio visual and poster.

<table>
<thead>
<tr>
<th>No</th>
<th>Characteristics</th>
<th>N</th>
<th>%</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Visual</td>
<td></td>
<td>Audio</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Age (years)</td>
<td>10</td>
<td>71,8</td>
<td>13</td>
<td>66,7</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>28</td>
<td>28,2</td>
<td>26</td>
<td>33,3</td>
</tr>
<tr>
<td>2</td>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Man</td>
<td>25</td>
<td>64,1</td>
<td>21</td>
<td>53,8</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>14</td>
<td>35,9</td>
<td>18</td>
<td>46,2</td>
</tr>
<tr>
<td>3</td>
<td>Snack selection (before)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Less</td>
<td>23</td>
<td>59</td>
<td>24</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td>Enough</td>
<td>10</td>
<td>26</td>
<td>11</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>Good</td>
<td>6</td>
<td>15</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>Snack selection (before)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Less</td>
<td>2</td>
<td>5</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Enough</td>
<td>9</td>
<td>23</td>
<td>12</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Good</td>
<td>28</td>
<td>72</td>
<td>19</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>39</td>
<td>100</td>
<td>39</td>
<td>100</td>
</tr>
</tbody>
</table>

Data analysis
Table 2. Wilcoxon statistical test results before and after given treatment through audio visual.

<table>
<thead>
<tr>
<th>Health education</th>
<th>Frequency</th>
<th>Average</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual Audio</td>
<td>Before</td>
<td>39</td>
<td>1.56</td>
</tr>
<tr>
<td></td>
<td>After</td>
<td>39</td>
<td>2.67</td>
</tr>
</tbody>
</table>

Based on the above table the results of analysis through Wilcoxon test can be seen that the average value before and sesduah given treatment through audio visuals with lectures have increased the average value before the treatment given by 1.56 while the average value after treatment is given by 2 , 67 with p value (.000) < α (0.05) then H0 is rejected and H1 accepted which mean there is difference of health education before and after being treated through audio visual with lecture to change of behavior of snack food of elementary school student of 5 in SD Negeri 1 Kenayan Tulungagung.

Table 3. Wilcoxon statistical test results before and after treatment is given through the media poster

<table>
<thead>
<tr>
<th>Health education</th>
<th>Frequency</th>
<th>Average</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poster</td>
<td>Before</td>
<td>39</td>
<td>1.49</td>
</tr>
<tr>
<td></td>
<td>After</td>
<td>39</td>
<td>2.28</td>
</tr>
</tbody>
</table>

Based on the above table the results of analysis through Wilcoxon test can be seen that the average value before and sesduah given the treatment through posters with lectures have increased the average value before the treatment given by 1.49 while the average value after treatment is given by 2, 28 with the p value (.000) < α (0.05) then H0 is rejected and H1 is accepted which means there is a difference of health education before and after being treated through audio visual with lecture to change of behavior of snack food of elementary school student of 5 in SD Negeri 1 Kenayan Tulungagung.
The behavior of snack food selection of elementary school children at SD Negeri 1 Kenayan Tulungagung before being given by audio visual treatment with lecture included in less category which is 23 respondents (59%), 10 respondents (26%) and 6 respondents (15%).

In the results of the survey before being given audio visual treatment with lectures most respondents have the behavior of choosing snack foods in the category less. The number of mistakes of respondents is pretty much the behavior of respondents who do not like some types of foods such as vegetables and fruits. In accordance with Riskesdas (2013), in the group of children aged 10 years and over consumption of vegetables only reached 63.3% and fruit 62.1% of the needs a day. Most of the children prefer foods with saturated fat content and higher energy than recommended and high in consuming artificial sweeteners, but low in consuming vegetables and fruits (Witt, 2012).

In addition to the behavior of respondents who do not like some foods such as vegetables and fruits. Some respondents also rarely wash their hands before eating. According to Quintero, Freeman and Neumark (2009), that only 36.6% of children wash their hands with clean water and soap before meals and after bowel movements.

DISCUSSION
The Behavior of Food Election of Primary School Children Before Giving Health Education Through Audio Visual with Lecture

The behavior of snack food selection of elementary school children at SD Negeri 1 Kenayan Tulungagung before being given by audio visual treatment with lecture included in less category which is 23 respondents (59%), 10 respondents (26%) and 6 respondents (15%).

In the results of the survey before being given audio visual treatment with lectures most respondents have the behavior of choosing snack foods in the category less. The number of mistakes of respondents is pretty much the behavior of respondents who do not like some types of foods such as vegetables and fruits. In accordance with Riskesdas (2013), in the group of children aged 10 years and over consumption of vegetables only reached 63.3% and fruit 62.1% of the needs a day. Most of the children prefer foods with saturated fat content and higher energy than recommended and high in consuming artificial sweeteners, but low in consuming vegetables and fruits (Witt, 2012).

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The Behavior of Food Election of Primary School Children Before Giving Health Education through Poster Media with Lecture

The behavior of snack food selection of elementary school children at SD Negeri 2 Kenayan Tulungagung before being given treatment through media poster with lecture included in less category that is as much as 24 respondents (62%), enough category 11 respondents (28%), and good category 4 respondents (10%).

In the survey results before being given treatment through the media poster most of the respondents have the behavior of choosing snack foods in the category less. The number of mistakes of respondents is quite a lot of the respondent's favorite by eating foods added sauce. One of the foods that need to be reviewed is the most sauce. According to Nafisafallah (2015), sauces are consumed from children to adults. Sauce is a complementary substance used in addition to the added delicacy of the food can be a liquid ketal (pasta) tang made of interesting colored pulp (usually red), has a stimulating aroma and taste (with or without spicy flavor), has a long shelf containing acid, sugar, salt and often preservatives (Suparianto, 2011).

Respondents often ask for excess sauce when buying hawker food. Based on the question and answer that has been done with the respondent, the reason the respondent liked the sauce because with the addition of hawker sauce will feel more delicious. Types of food snacks that are often purchased by the respondents with the addition of sauce is sausage, pentol, cilot, sempol and egg gulungan. From the statement it is known that before being given health education through posters with lectures, the behavior of respondents who liked the food added sauce mostly entered in the category less.
The Behavior of Food Election of Primary School Children After Giving Health Education Through Audio Visual with Lecture

Behavior of food snack election of elementary school student at SD Negeri 1 Kenayan Tulungagung after being given treatment through audio visual enter in good category that is 28 respondent (72%), enough category 9 (23%), and category less 2 (5%).

Based on survey results after being given treatment through audio visual most respondents already have the behavior of choosing snack foods in good category which means that respondents can choose healthy and nutritious snack foods. As for some respondents who remain in the category of less respondents who do not pay attention to the cleanliness of tools used to process snacks. Tableware is all kinds of tools used to process and serve food. According to the MOH RI (2009) used food utensils should be clean, in order to avoid the possibility of disease transmission.

From the results of research after being given health education about the behavior of the selection of snack foods through audio visual with SD Negeri 1 Kenayan, dikehui that most of the respondents entered in good category. This condition shows that the provision of health education through audio visual can change the behavior of snack food election of elementary school children.

The Behavior of Food Election of Primary School Children After Giving Treatment Through Poster

The behavior of snack food selection of elementary school children at SD Negeri 2 Kenayan Tulungagung after being given treatment through media poster included in good category that is 19 respondents (48,7%), enough category 12 (30,8%), and category less 8 (20,5%).

Based on the results of the survey after being given treatment through media poster half of respondents already have the behavior of choosing snack foods in good category which means that respondents have been able to choose healthy snacks and nutritious snacks. As for some respondents who remain in the category of less that respondents who prefer behavior snacks or fried snacks. People generally use cooking oil to process food, for both side dishes and snacks. Food that is known as fried food. The taste is tasty, crunchy and cheap prices make people love it (Media Kompas Nusantara, 2006).

From the results of research after being given a health education about the behavior of snack foods through the media poster with a lecture at SD Negeri 2 Kenayan, dikehui that the respondents entered in good category. This condition shows that the provision of health education through the media poster can change the behavior of snack food election of elementary school children.

Effectiveness of Health Education Through Audio Visual with Lecture and Poster with Lecture on Change of Behavior of Food Election of Primary Grade Food of 5th Grade in SD Negeri 1 and 2 Kenayan Tulungagung

From the second treatment of health education through audio visual with lectures and posters with the above lecture can be concluded that health education through audio visual is more effective than through media poster. This can be seen through Mann-Whitney Test results that the average value of health education through audio visual with lecture is better than the media poster with a lecture that is the average value of health education through audio visual with lectures of 44.62 while the average value health education through media poster with lecture equal to 34,38 with value p value (0,022) <α.

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(0.05) then reject H0 and accept H1. This means there is a difference in health education through audio visuals with lectures and posters with a lecture on the change in the behavior of snack food election of 5th grade elementary school students at SD Negeri 1 and 2 Kenayan Tulungagung.

CONCLUSION
1. Most respondents before being treated by audio visual half of the respondents in the category of less that is as much as 23 respondents (59%).
2. Most respondents before being given treatment through media poster more than half of respondents into less category that is as much as 24 respondents (62%).
3. Half more than respondents after being given treatment through audio visuals into the good category that is as much as 28 respondents (72%).
4. Half of respondents after given treatment through media poster entering good category that is as much 19 respondents (48,7%).
5. The average value of health education through audio visual with lecture is better than the media poster with a lecture of the average value of health education through audio visual with lectures of 44.62 while the average value of health education through the media poster with lectures of 34,38 with p value (0.022) <α (0.05) then reject H0 and accept H1. This means there is a difference in health education through audio visuals with lectures and posters with a lecture on the change in the behavior of snack food election of 5th grade elementary school students at SD Negeri 1 and 2 Kenayan Tulungagung.

SUGGESTION
1. For School Parties
   For the school is expected to make appropriate programs and policies about snack foods for the good of all citizens of the school.
2. For Students
   Students are expected to continue to apply the behavior of snack food selection well in everyday life.
3. For Educational Institutions
   The results of this study can be used as reference materials or research literature related to health education through audio visuals with lectures and posters with lectures on changes in the behavior of hawker snack election of primary school children.

4. For Further Researchers
   It is expected to conduct further research on the effectiveness of health education through visual audiences and posters to increase the knowledge of food calm healthy, safe and nutritious snacks in elementary school children.

BIBLIOGRAPHY


