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## Pop Up Book Media Intervention Can Improve The Knowledge Of The Dangers Of Smoking Of Elementary School Students In Jambi City

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### Abstract

Prevention of smoking behavior must be done early, especially in children, one of which provides knowledge about the dangers of smoking in order to avoid smoking behavior. The purpose of this study was to determine the effect of using Pop Up Book media on students' knowledge about the dangers of smoking at State Elementary School 66 / IV Jambi City. This type of research is a quasi-experiment with the planning used, namely One Group, Pre-test and Post-test design. The population of this study amounted to 590 students with a research sample of 34 students. Using the Shapiro Wilk test, the data showed that of the 34 students who only had good knowledge before the intervention, 23 (69.7%) respondents. The results after the intervention, respondents with good knowledge were 28 (84.8%) respondents. This means that knowledge about the dangers of smoking increased in elementary school student respondents. Data tested with the Wilcoxon test can be seen that health education using Pop Up book media about the dangers of smoking is considered very effective with a P Value of  $0.000 < 0.05$ , which means statistically there is a difference in increasing knowledge by using Pop Up Book media about the dangers of smoking in elementary school students. The conclusion of this study is that there is an increase in knowledge after intervention using Pop Up Book.

**Keywords:** Media Intervention, Dangers Of Smoking

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## INTRODUCTION

Approximately 8 million people die each year due to smoking. 7 million of them are active smokers while 1.2 million are people exposed to cigarette smoke (passive smokers) Data from the World Health Organization (WHO) published on July 26, 2021 states that 1.3 billion people smoke worldwide, with more than 80% in middle and low income countries . Indonesia itself is among the countries with the highest number of active smokers in the world, namely 33.8% or around 65.7 million people. Based on data from the Central Statistics Agency (BPS), the percentage in 2021 of the Indonesian population aged 15 years and over who are active smokers is 28.96%, this data is not much different from 2020, which is 28.69%. besides that the majority of active smokers first tried to smoke in the age range of 15-19 years. This is based on Basic Health Research data stating that 52.1% of active smokers for the first time tried smoking at the age of 15-19 years .

Many ways can be done in preventing early smoking behavior, especially in children, one of which is providing knowledge about the dangers of smoking to these children. Because knowledge should greatly influence a person's behavior in smoking. Notoadmojo (2007) says that someone will adopt a behavior and must first know how the meaning or benefits of that behavior to himself and his environment. Other research conducted by Andika. D, et.al in 2016 suggested that from 228 respondents it was found that the level of smoking incidence was 1% and the level of knowledge was 60% with the meaning that there was a relationship between the level of knowledge on the incidence of smoking where the greater the knowledge, the smaller a person's behavior to smoke will be .

One way to provide health education to children to increase knowledge about the dangers of smoking is to provide education that is fun and interesting to see. Because early childhood is able to think abstractly, logically and is able to obtain information that it has learned. In addition, in

providing health education, you can also utilize existing media creatively, one of which is using Pop Up Book media. Pop Up Book media is one of the card media that is arranged into a book which usually contains folds of cut images and when the book is opened on each page it appears in the form of a three-dimensional layer that has been carefully arranged. Health education on increasing the knowledge of elementary school students using media is very diverse. One of the media that can be used is the Pop Up Book media. This was conveyed by Sunarti (2020) in her research stating that the use of Pop Up Book media is very influential in health counseling on students' attitudes and knowledge of balanced nutrition. This can be seen from the measurement of the knowledge value of grade V students increasing after being given education using Pop Up Book media.

Education using Pop Up Book media can increase students' awareness of the dangers of smoking with the aim that in the future these students will not have smoking behavior. Akbar, et.al (2020) stated that the use of Pop Up Book media has a relationship between increasing student knowledge. (Akbar, et.al., 2020)<sup>6</sup>. However, researchers have not found research that uses Pop Up Book media in increasing knowledge about the dangers of smoking in elementary schools. Therefore, researchers need to examine the effect of using Pop Up Book media on elementary school students' knowledge of the dangers of smoking. This study was conducted to determine the results of the intervention before and after the provision of education about the dangers of smoking using Pop Up Book media in elementary school students. The results of this study are expected to provide one of the health teaching media, namely by using Pop Up Book media in elementary school students. And also by providing education on the dangers of smoking, students are expected to be aware of the dangers and impacts of smoking so that they do not try to smoke

## **RESEARCH METHODS**

This research is a Quantitative research where the method used is *quasi/pre-experiment* with *One Group, Pre-test and Post-test design* as the type of planning used. The intervention was carried out on March 13, 2023 as well as giving pre tests and post tests after the intervention was given at that time. The population of this study were all students of SDN 66 / IV Jambi City, totaling 560 students. With a sample of 34 students. In the implementation of the results of the validity test of the research instrument obtained the results that the questionnaire was declared. The Wilcoxon test was used in determining this hypothesis.

## **RESULTS AND DISCUSSION**

In this study, the respondents studied were all students in grades IVA, IVB, IVB at SDN 66/IV Jambi City, totaling 33 students. The characteristics of respondents seen include gender and age. The results of data collection on the distribution of respondents based on gender and age as shown in table 1.

**Table 1. Characteristics of respondents**

No.	Characteristics	Frequency	Percentage %
<b>1</b>	<b>Gender</b>		
	Male	16	48.5
	Female	17	51.5
	<b>Total</b>	<b>33</b>	<b>100%</b>
<b>2</b>	<b>Age</b>		
	9 years	3	9.1
	10 years	25	75.81
	11 years	5	15.2
	<b>Total</b>	<b>33</b>	<b>100%</b>

source: primary data 2023

Based on the results of the table above, it shows that respondents with male gender are 16 students (48.5%) and while respondents with female gender are 17 students (51.5%). In addition, respondent data according to age in table 1 can also be seen that the largest age distribution in the age group of 10 years is 25 people (75.8%), in the group of respondents aged 11 years, namely 5 people (15.2%) and the last group of respondents aged 9 years as many as 3 students (9.1%). Based on the results of these data, it can be seen that the respondents who were used as respondents at SDN 66 / IV Jambi City were mostly aged, namely 25 students (75%). this means that children aged 9-11 years are elementary school children who are in grade IV where these students can be said to be able to read and write so that what they read can be understood. Children at that age elementary school students can also think logically and rationally as well as adults so that it is hoped that the use of pop up book media about smoking can add insight and know the dangers of smoking to personal health.

**Table 2: Media to increase student knowledge Grade IV SDN 66/IV Jambi City**

Knowledge Pretest			Knowledge Posttest		
Category	N	%	Category	N	%
Good	23	69.7	Good	28	84.8
Less good	10	30,3	Less Good	5	15,2
<b>Total</b>	<b>33</b>	<b>100</b>	<b>Total</b>	<b>33</b>	<b>100</b>

Source: primary data 2023

Table 2 above shows that as many as 23 (69.7%) respondents with good knowledge category at pretest and as many as 10 (30.3%) respondents with poor knowledge category at pretest. Then at the time of the posttest after the intervention, the good category knowledge increased to 28 (84.8%) respondents. While the number of respondents with poor knowledge decreased to 5 (15.25%) This significant increase in "Good" knowledge occurred due to the median value which increased after the intervention at the time of the pretest and post test measurements, namely by 15.1%.

**Table 3. Hypothesis Test Results with Knowledge Test (Pretest and Posttest)**

Variables	N	N	Mean Rank	P Value	Z
	Decreasing Score	4	6.75		
Knowledge	Score Increased	20	13.65	0,000	-3.535
	Score Unchanged	9	-		

Based on table 3 above, it shows that the knowledge variable has increased in students about the dangers of smoking before and after the intervention. The analysis on this variable uses the Wilcoxon test because the researcher's sample is less than 50 so that it is found that the p value (Sig. 2-tailed) of the results of increasing the knowledge of fourth grade students at SDN 66/IV Jambi City is  $0.000 < 0.05$ , which means that  $H_a$  can be accepted. So from these results it is concluded that there is a significant effect of using Pop Up Book media in increasing the knowledge of grade IV students at SDN / IV Jambi City.

**Discussion**

The lack of knowledge of the dangers of smoking in students occurs because students lack the correct information regarding the dangers of smoking. The result of a lack of knowledge will have an impact on the high consumption of cigarettes in everyday life. The theory of Notoatmodjo (2007) says that knowledge is a very important domain in the creation of human behavior or often called overt behavior. In addition, knowledge is also one of the most important factors in the formation of human action. Knowledge in the sense of information that is collected and then must be understood and also knowledge obtained from the learning process during life. This source of information will later be used in his adjustment both to himself and also in the environment at a later time.

Every individual who has knowledge of the dangers of smoking is an important factor in the implementation of smoking behavior prevention. For this reason, the delivery of information about the dangers of smoking must always be conveyed to students so that in the future these students do not become involved in smoking behavior. In line with research by Festi, P. W, et al in 2020, students who have good category knowledge increase about the dangers of smoking after the intervention. It can be said that there is a meaningful and significant relationship to knowledge of the dangers of smoking in students in elementary schools<sup>8</sup>. The provision of health education and health promotion is what has increased smoking knowledge before and after the intervention. This is similar to the results of research by Sulastri, Rindu (2019) saying there is a relationship before and after the provision of health promotion on the knowledge and attitudes of adolescents about the consequences of smoking in school students<sup>9</sup>.

From this study, it was found that there was a change in knowledge from poor to good knowledge in students. In addition, in the bivariable test analysis of research on the use of Pop Up Book media, the data results indicate a significant influence between before and after the education of the dangers of smoking. It can be said that Pop Up Book media has an influence on increasing the knowledge of elementary school students. Other research that supports the results of researchers is the research of Arbiah. St, et al (2021) which states that the effect of health education on the use of Pop Up Book has an effect on learning outcomes in elementary school students on increasing knowledge<sup>10</sup>. Similar results were shown in the research of Kusbandiyah, E. Nur Dian, W & Dwilestarai Ratih, U (2022) which stated that after the provision of health counseling by utilizing

Pop Up Book media regarding balanced nutrition, obese children were able to improve and influence their knowledge and attitudes regarding balanced nutrition, this means that pop up book media can be used as one of the platforms in educating health in elementary school students<sup>11</sup>. Pop Up Book media makes the Health Promotion counseling process easier and more interesting for both the messenger and the recipient of the message. In line with research by Laon M, et al (2017) said that the use of pop up book media makes students' knowledge about oral health better understood. It can be concluded that the use of educational media, one of which is Pop Up Book media, makes it easier for someone to understand information or learning material more easily<sup>12</sup>.

The use of Pop Up Book media can assist in the delivery of health promotion, this Pop Up Book is in the form of attractive images rather than just conveying words without media assistance. based on research (Khalifah, 2019) Pop Up Book media greatly facilitates the improvement of student learning outcomes. Because the learning process in modern times must now be improved so that students become more active in learning and their curiosity increases. In addition, students' enthusiasm is high in using Pop Up Book media, this can be seen in students who focus their attention on learning and listen to the explanation well.

## CONCLUSION

There was an increase in elementary school students' knowledge about the dangers of smoking by 15.1%. after intervention using Pop Up Book and there was a significant effect of using Pop Up Book media in increasing the knowledge of elementary school students. Suggestions for elementary schools in Jambi City in providing education about the dangers of smoking can use Pop Up Book.

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