

Implementation Of Digital Application-Based Education On The Dangers Of Smoking On The Smoking Attitudes And Behavior Of Grade 6 Students Of Sdn Cerme 1

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ABSTRACT

Smoking is the activity of burning tobacco wrapped in nipah leaves or paper, then inhaling and exhaling the smoke. Smoking is a habit that can damage the health of the body, both for active and passive smokers. In an effort to increase knowledge about the dangers of smoking, education can be done through digital application media. Sutori is one of the digital applications that has features that support use in educational activities. This study aims to determine the effect of education with digital application media on smoking attitudes and behavior in grade 6 students of SDN Cerme 1. This type of research is quantitative using pre-experimental with a one group pre-test post-test design approach with a total sampling method of 49 respondents. This study was conducted on June 8, 2024 using a questionnaire. Data analysis using the Wilcoxon test with a Z-Score result of -6.095 and an asymp value. Sig 2-tailed 0.000 which concluded that H0 was rejected and H1 was accepted which means that there is an influence of providing education with digital application media on the smoking attitudes and behavior of grade 6 students of SDN Cerme 1. Education through application media is one of the effective ways to provide knowledge. Complete and interesting features can make learning more interesting and not boring So that someone fully understands the concept presented to improve their cognitive abilities.

Keywords : Digital Applications, Education, Smoking Attitudes, Smoking Behavior

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INTRODUCTION

Smoking is a habit of smoking cigarettes that is done in everyday life, it is a necessity that cannot be avoided for people who have a tendency towards cigarettes. Cigarettes are rolled or rolled tobacco rolled / wrapped in paper, leaves, or corn husks as big as a little finger with a length of 8-10 cm, usually smoked by someone after burning the tip. Cigarettes are addictive substances because they can cause addiction and dependency for people who smoke them (Ministry of Health of the Republic of Indonesia, 2022). Smoking generally begins during adolescence, and initiation occurs at a young age, and the longer the greater the risk of becoming a daily smoker (Sylvestre et al., 2018). As the leading cause of preventable premature death, WHO estimates that smoking is the cause of around 7 million deaths each

year worldwide, including more than 890,000 non-smokers who die due to exposure to passive smoking (WHO, 2019)

Indonesia is the third country with the largest smoking prevalence in the world after China and India. Based on the 2013 Basic Health Research Data (Riskesdas), more than 58 million active smokers aged over 10 years have started smoking. Reaching 4 million at the age of 10-14 active smokers started smoking at the age of 10 years and over amounting to more than 58 million people. This number has increased every year. The survey conducted by Global Youth Tobacco Survey (GYTS) in 2014, the proportion of first-time smokers aged <7 years was 8.9%, aged 8-9 years was 10.9%, aged 10-11 years was 25.6%, aged 12-13 years was 43.2%, and aged 14-15 years was 11.4% (Diba et al., 2016).

The Indonesian National Health Survey (Sirkesnas) in 2016 showed that the prevalence of smokers in children aged 10-14 years increased from 6.3% in 2017 to 7.8% in 2018. Basic Health Research (Riskesdas) data in 2019, the increase in smokers aged 10-14 years reached 8.9% or an increase of around 0.6% from 2016 (Fenome, 2019). Over the past decade, Indonesian cigarette consumption has increased by 54.2% with the number of Indonesians who smoke as much as 70%. (Pangestu et al., 2017). The Central Statistics Agency (BPS) noted that there were 0.34 percent of the population in the 10–14-year-old age group who had smoking behavior. And Kediri district has 24,35% of smokers aged 15 years in 2022.

According to research conducted by Ajsal, et.al (2023) Based on the results of the researcher's analysis, it was concluded that the attitude of smoking in elementary school children is merely a desire to try without knowing the dangerous effects that can be caused by smoking. This desire to try arises due to environmental factors such as seeing family members smoking, as well as peer invitations to smoke. Parents play an important role in initiating teenagers to smoke. Parents smoking is considered as a form of legitimization of smoking for their children (Alamsyah & Susanti, 2017). As for the analysis of researcher Hasrianto, 2020, it can be concluded that there is a relationship between smoking families and smoking behavior, because the family plays a very important role in shaping a child's attitude and personality, children tend to imitate the behavior of their parents or family, whether it is positive or negative actions because the family is a model for a child. So in general it is natural that those who have parents or family who smoke tend to smoke too

Students' attitudes toward smoking can be categorized into positive and negative attitudes. A positive attitude toward smoking means that students have a tendency to accept and justify smoking behavior, while a negative attitude means that students reject and consider smoking as something detrimental. According to Ajzen (1991) in the theory of Planned Behavior, a person's attitude toward a behavior is greatly influenced by social norms and perceptions of self-control. In other words, if students are in an environment that is permissive of smoking, then they tend to have a more tolerant attitude toward this habit.

The phenomenon of smoking behavior among 6th grade elementary school students is a challenge for the world of education and health. Teachers and parents have an important role in shaping children's understanding of the dangers of smoking and providing appropriate guidance so that they do not fall into this habit. Based on research conducted by Nurhadi (2019), health education provided early on, both at school and at home, can reduce the likelihood of children trying to smoke. Therefore, an effective approach to educating children about the dangers of smoking is needed to prevent them from being exposed to this habit from an early age.

SDN Cerme 1 is an elementary school located on Jl. Rambutan No. 61-a, Cerme Village, Grogol District, Kediri Regency, East Java Province. Based on the results of an interview on April 5, 2024, the Principal said that he had never received special education about the dangers of smoking before. And when the initial data collection was carried out on

grade 6 students with 49 respondents using the interview method of giving oral questions about smoking attitudes and behavior, the results were in the good category of 71%.

In a previous study conducted by Nada Mufida in 2022 which was conducted in Dusun Kandangan Rt. 02 Rw. 03 Margodadi, Seyegan, Sleman, DIY Yogyakarta. The sample of the study was 21 people. This study showed that there was an increase before education and after education about the dangers of smoking, with a pre-test result of 6.52 and a post-test result of 9.29, an increase of 2.77.

In another study conducted by Nisrina Aulia Amirah et.al in 2020 at SMKN 2 Bandar Lampung with 36 samples consisting of 19 males and 17 females aged 16-17 years. This study showed an increase between before and after education with a pre-test result of 50.61 and a post-test result of 67.39. From the results of the pre-test of education on the dangers of smoking, the P value was obtained = 0.465 and the post-test results of education on the dangers of smoking with a P value = 0.058.

The many cases of minors smoking are usually caused by behavior imitated by the family, or parents themselves who smoke in the home environment or outside the home environment. This is certainly contrary to the Law on Child Protection. Where children must be protected from cigarettes and cigarette smoke. If children are exposed to cigarettes from an early age, the hope for a healthy next generation cannot be realized (Prawitasari, 2019).

The causes of children smoking at school age include curiosity, family environment, peers, and the influence of cigarette advertising (Mayenti, 2019). School children aged 10-14 years are at the stage of socialization development with their friends, so that children want to play with their group of friends, where in one group, children follow what their friends do or can also be persuaded by their friends to smoke (Handayani et al., 2016). Elementary school children do not yet understand in detail the dangers of smoking to health, so they tend to underestimate the dangers of smoking to health, especially children aged 10-14 years who are still mentally unstable at the lowest level of knowledge. that cigarette consumption is very dangerous for health, as a result children tend to underestimate the health risks of cigarette consumption, especially in children aged 10 to 14 years who still have unstable thoughts with their minimum level of knowledge (Fauziah et al., 2021).

But the reality is that there are elementary school students who smoke, of course it is concerning. This is because there are substances contained in cigarettes that play a role in creating addiction. Therefore, if you have tried it once, in the future it will create addiction. In addition, there are several other substances and chemicals that are harmful to health and threaten health.

Providing education on the dangers of smoking to children at an early age, namely since they are in elementary school is very important because considering that children at this elementary school age are the next generation of the nation whose community is quite large, in addition, elementary school age children are a very sensitive age to be instilled with an understanding and healthy lifestyle habits. Educational institutions are seen as a strategic place to promote school health, as well as an effective place to realize health education. The knowledge and attitudes acquired by children after being given health education are expected to be brought home to influence their family's behavior towards smoking. Given the importance of children's health behavior in relation to the development of quality Indonesian human resources in increasing the Human Development Index (HDI), health education programs in schools need to be introduced and taught from the beginning (Erwanto, 2017). Digital application-based education offers an interactive and engaging approach for elementary school students, which can increase their engagement and understanding of the dangers of smoking. This approach also utilizes technology that is familiar to the digital native generation, so it is expected to be more effective in changing smoking attitudes and behaviors than conventional methods.

Based on the background and data above, the author/researcher is interested in examining whether there is an influence of education about the dangers of smoking with digital media to improve the knowledge of grade 6 students of SDN CERME 1.

METHODS

This research uses a research method pre-experiment. The research approach used in this research is the approach one group pre-test post-test. One group pretest-posttest design is a research activity that provides an initial test (pretest) before giving treatment, after giving treatment then giving a final test (posttest). With the technique total sampling obtained a sample of 49 respondents. Using a questionnaire instrument, Have Ethics test has been conducted in institute ilmu Kesehatan Strada Indonesia, Data analysis using the Wilcoxon statistical test. Statistical test analysis Wilcoxon The results of the "output" test statistics are known to be a symp.sig (2-tailed) or the p value is 0.000. Because the value of 0.000 is smaller than <0.05 , it can be concluded that the "hypothesis is accepted".

RESULTS

Respondent Characteristics

1. Gender

Table 4.1 Respondent Characteristics Based on Gender (n = 49)

gender	Frequency (f)	Percentage (%)
Woman	18	39%
Man	31	61%
Total	49	100%

Data Source: Tabulation of Research Results at SDN Cerme 1

Based on the data in the table above, it can be seen that the majority of respondents are male, namely 61%.

2. Age

Table 4.2 Respondent Characteristics Based on Age (n = 49)

Age	Frequency (f)	Percentage (%)
11 years old	3	3%
12 years old	27	65%
13 years old	19	32%
Total	49	100%

Data Source: Tabulation of Research Results at SDN Cerme 1

Based on the table above, it can be seen that the respondents consist of students aged 11, 12 and 13 years, with the majority being 12 years old with a percentage of 55%.

Research result

1. Identify smoking attitudes before providing education about the dangers of smoking

From the research results, the following results were obtained:

No	smoking attitude before education	Frequency	(%)
1.	Very good	17	34 %
2.	Good	30	61 %
3.	Good enough	2	5 %
4.	Less Good	0	0 %
5.	Bad	0	0 %
	Total	49	100%

Table smoking attitudes before being given education about the dangers of smoking

Based on the table, it is known that 49 respondents in the smoking attitude measurement before given *education*. The results showed that most respondents had good knowledge, namely 30 people with a percentage of 61%.

2. Identification of smoking attitudes after being given education about the dangers of smoking

From the research results, the following results were obtained:

No	smoking attitude after education	Frequency	(%)
1.	Very good	45	92 %
2.	Good	4	8 %
3.	Good enough	0	0 %
4.	Less Good	0	0 %
5.	Bad	0	0 %
Total		49	100%

Table smoking attitudes after being given education about the dangers of smoking

Based on the table, it is known that 49 respondents in the smoking attitude measurement after being given education experienced an increase. The results showed that the majority of respondents had a very high level of knowledge. *t* good, namely 45 people with a percentage of 92%.

3. Identify smoking behavior before providing education about the dangers of smoking

From the research results, the following results were obtained:

No	smoking behavior before education	Frequency	(%)
1.	Very good	45	92 %
2.	Good	4	8 %
3.	Good enough	0	0 %
4.	Less Good	0	0 %
5.	Bad	0	0 %
Total		49	100%

Table smoking behavior before being given education about the dangers of smoking Based on the table, it is known that 49 respondents in the smoking behavior measurement before given *education*. The results showed that most respondents had good knowledge, namely 45 people with a percentage of 92%.

4. Identification of smoking behavior after being given education about the dangers of smoking

From the research results, the following results were obtained:

No	smoking behavior after education	Frequency	(%)
1.	Very good	47	95 %
2.	Good	2	5 %
3.	Good enough	0	0 %
4.	Less Good	0	0 %
5.	Bad	0	0 %
Total		49	100%

Table smoking behavior after being given education about the dangers of smoking on

June 8, 2024

Based on the table, it is known that 49 respondents in the smoking behavior measurement after being given education experienced an increase. The results showed that the majority of respondents had a very high level of knowledge. *t* good, namely 47 people with a percentage of 95%.

5. The interpretation of the results of the Wilcoxon test above is:

1. Z-score is -6,095

The Z value shows how much the results differ. Pretest And posttest from the median expected difference. This negative Z value (-6.095) indicates that there is a significant and negative difference between pretest And posttest with the note that negative values post test tend to be lower

2. Asymp.Sig.(2-tailed) is 0.000

The p-value (Asymp.Sig) is 0.000 which is far below the general significance level. This shows that there is an observed difference between pretest and posttest very statistically significant. Based on the results of the Wilcoxon test, it is known that Asymp. Sig. (2-tailed) has a value of 0.000. Because the value of 0.000 < 0.05 then it can be concluded that rejected and accepted, which means that there is an influence of digital application-based education about the dangers of smoking on the smoking attitudes and behavior of grade 6 students at SDN CERME 1.

DISCUSSION

A. Attitudes and smoking behavior before being given education

Based on the table, it is known that 49 respondents in the measurement of smoking attitudes and behavior before being given education, the results showed that the majority of smoking attitudes were at a good level, namely 61% or 30 respondents and for smoking behavior, the majority were at a very good level, namely 92% or 45 respondents.

Respondents realized that smoking behavior is an action that is not beneficial and the behavior of quitting smoking is quite profitable to do. According to Ajzen in Ramdhani's research, attitudes towards behavior are where someone makes an assessment of something that is beneficial and not beneficial (Ramdhani, 2011). Respondents who agreed realized the benefits of quitting smoking, including being free from addiction, avoiding consuming chemicals and being free from health problems.

The theory states that attitude is the most important concept in social psychology that discusses the elements of attitude as individuals and groups. Many studies have been conducted to formulate the definition of attitude, the process of attitude formation, and change. Many studies have also been conducted on attitudes in relation to their effects and roles in character formation and intergroup relationship systems and choices determined based on the environment and its influence on change.

Valuing, inviting others to do or to be able to be the basis for forming an attitude, personal experience must leave a strong impression. Therefore, attitudes will be more easily formed if the personal experience occurs in a situation involving emotional factors. The affective component is related to how feelings arise in a person that accompanies his attitude, can be positive or negative towards the object of the attitude. If someone has a positive attitude towards the object of the attitude, then this means that there is also a relationship with other positive values related to the object of the attitude, as well as with negative attitudes.

This study is in line with the results of a study conducted by Nurul Azmi Nasution entitled "Description of Knowledge and Attitudes of Adolescents About Smoking at SMP Negeri 41 Medan in 2017". In this study, the results showed that they had a positive attitude with a percentage of 92.1% or as many as 70 people out of 76 respondents. According to Nurul's assumption, a positive attitude occurs because of its relationship with the knowledge

possessed and the experience and exposure to information obtained by respondents in their environment, so that it is evaluated in the form of a positive attitude. While a negative attitude occurs because of the respondent's assumption that he feels he is an adult, so he does not agree with the smoking ban.

The researcher believes that the majority of respondents have good answers regarding smoking attitudes when collecting data through a questionnaire, namely 61% or 30 respondents, but there are still 5% of respondents whose answers are not good, which means they are at risk of showing negative attitudes towards smoking, such as influencing friends and so on.

B. Attitudes and smoking behavior after being given education about the dangers of smoking

Based on smoking attitudes and behavior after education, it can be seen from the questionnaire distributed to 49 respondents, the results showed that smoking attitudes showed a very good level, namely 92% or 45 respondents, and smoking behavior also showed a very good level, namely 95% or 47 respondents.

According to Kurniawan, A., & Suryani, T. (2021). Providing health education has been shown to have a positive impact on students' attitudes and behavior. After gaining a deeper understanding of the negative impacts of smoking on health, the environment, and social aspects, many students showed a change in attitude that was more aware of the risks of smoking. This is indicated by an increase in the intention to quit smoking for those who already smoke and a decrease in interest in trying for those who have never smoked. In addition, students also began to play an active role in disseminating information to their peers, so that the educational effect is wider. This finding is in line with research stating that education-based interventions have significant effectiveness in reducing the prevalence of smoking among students.

This is also in line with research conducted by Prasetyo, H., & Wijayanti, R. (2020) which shows that after education was given, the results increased significantly, followed by changes in attitudes and behavior. For example, a study found that students who were previously in the 'vulnerable to smoking' category experienced a decrease of up to 60% after being given education for several weeks. In addition, students also began to play an active role in spreading information about the dangers of smoking to their friends and family.

Thus, it can be concluded that educational interventions on the dangers of smoking have a positive impact on changing students' attitudes and behaviors. Health education programs designed with an interactive and evidence-based approach can be an effective strategy in reducing the number of young smokers and forming collective awareness of the importance of a healthy life without smoking.

Researchers argue that health education has a very big impact in suppressing smoking attitudes and behavior in students. This is shown from the results of the study, the majority of respondents have a very good level after being given health education and effective education not only provides information about the dangers of smoking, but also builds students' critical awareness of the long-term impacts of smoking. When students understand that smoking not only affects their own health but also those around them, this awareness becomes the basis for changing attitudes. Those who previously considered smoking as normal begin to understand its consequences and develop a more negative attitude towards the habit. In addition to changes in attitude, education also has an impact on student behavior. Those who already smoke tend to show an intention to reduce or quit, while students who do not smoke become more determined to refuse invitations to smoke. In fact, many students have begun to educate their peers about the dangers of smoking, showing that a good education program can create a chain effect in spreading positive information.

C. Analyzing the influence of digital application-based education about the

dangers of smoking-on-smoking attitudes and behavior.

Based on the output results of the Wilcoxon test, it is known that Asymp, Sig. (2-tailed) has a value of 0.000. Because the value of 0.000 < 0.05 then it can be concluded that rejected and accepted which means that there is an influence of health education on the smoking attitudes and behavior of grade 6 students of SDN Cerme 1. One of the efforts that can be done to overcome smoking behavior is by providing education about the dangers of smoking. Counseling activities with more interactive methods such as using videos, posters, and interactive discussions will increase knowledge. So it is hoped that with increased knowledge will change the behavior of unhealthy individuals (Rusmilawaty. 2016 and Ambarwati et al. 2014). From Siregar et al 2015 the research results, it is suggested that schools provide more information about the dangers of smoking behavior at elementary school age. Schools communicate with parents, especially mothers, to reduce smoking behavior in front of children. Schools prohibit teachers from smoking in the school environment and village heads prohibit stalls from selling cigarettes to elementary school students.

Concluded that the solution to reduce smoking attitudes and behavior is to provide interesting and easy-to-understand education, besides also establishing cooperation between the school and parents to provide advice on smoking attitudes and behavior that should be avoided. Researchers argue that one way to provide interesting education is with digital application media, besides being easy to understand, the available features are also very helpful in providing education about avoiding smoking attitudes and behavior in students.

CONCLUSION

From the 49 respondents in the measurement of smoking attitudes and behavior before education was carried out, it was found that the majority of smoking attitudes were at a good level with a prevalence of 61% of 30 respondents and the majority of smoking behavior was at a very good level, namely 92% or 45 respondents. After being given education, the majority of attitudes and behaviors were at a very good level, namely smoking attitudes of 92% of 45 respondents and smoking behavior of 95% or 47 respondents. The results above show that education with digital application media has a positive impact on respondents. The p-value (Asymp.Sig) is 0.000 which is far below the general significance level. This shows that there is an observed difference between pretest and posttest very statistically significant. Based on the results of the Wilcoxon test, it is known that Asymp. Sig. (2-tailed) has a value of 0.000. Because the value of 0.000 < 0.05 then it can be concluded that rejected and accepted, which means that there is an influence of digital application-based education about the dangers of smoking on the smoking attitudes and behavior of grade 6 students at SDN CERME 1.

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