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DIFFERENCES IN STUDENT READINESS USING ANIMATED VIDEOS ABOUT FIRST AID ABOUT BURNS

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Abstract

Background: Burns often become a serious problem if they are treated incorrectly. Be it light burns, moderate burns or severe burns. Proper handling of burns is very important at the start of the burn incident, whereas many people and school children currently treat burns incorrectly. Purpose: To determine the difference in students' readiness before and after being given health education using an animated videos of first aid burns using animated videos. Methods: In this research the author used a quantitative method, one group pretest-posttest design system approach. Researchers involved 35 students at SMPN 2 Krucil with 32 sample. The technique used purposive sampling. Then the media instruments used were questionnaire sheets and analysis using the Wilcoxon test (non-parametric). Results: Students' readiness before being given the animated video was in the least ready category, namely 27 respondents (84.4), and after being given the animated video, it was in the very ready category, the highest was 23 respondents (71.9%). From the Wilcoxon analysis, it was found that p (0.00) < α (0.05), so it can be concluded that H0 was rejected while Ha was accepted. Conclusions: There was a difference in readiness between students before and after being given health education using an animated video about first aid for burns. Discussion: It is hoped that educational institutions can provide material regarding first aid for burns to students using animated videos to increase students' readiness in dealing with first aid for burns which can occur at any time.

Keywords: *Animated Videos; Burns; Firs Aid; Health Education, Readiness.*

Introduction

Burns are an emergency problem because it cannot be predicted when and where it will occur. Therefore, basic knowledge is needed for first aid for burns because if you do the wrong thing in action, it can cause a fatal event, namely further complications or can even cause death to the victim. Burns often occur in children, where the cause can come from hot water, fire, fireworks, and hot steam. Therefore, first aid is needed to prevent the condition from getting worse (Darotin et al., 2023). Some students make mistakes in handling burns, so first aid for burns is very necessary to prevent complications and worse conditions (Waladani & Agina Widyaswara Suwaryo, 2021). This has an impact on the victim's condition, can cause worse conditions and complications. An important aspect in providing burn relief by providing proper

treatment in the early stages after the occurrence of burns because if the wrong treatment is given, it can have serious consequences for the victim's recovery and health condition. Some of the impacts that can occur if the first treatment of burns is wrong is to increase the risk of infection complications that can cause excessive pain in burn sufferers. Therefore, it is important for students to be educated on the correct burn handling procedures (Emergensi et al., 2021)

According to data taken from the official website of the World Health Organization (WHO) in 2018, burns occupy the highest position as the cause of death occurring worldwide, with the death toll reaching 180.000 people per year. In addition, quoted data from RISKESDAS (2018), it shows that the incidence of burns that affect children aged 15-24 years is the third highest cause that occurs in Indonesia, with a percentage of 1.3%. The report also recorded data on male victims of 1,2% and female victims of 1,4%. Often burns occur to students who have completed elementary school or are taking the junior high school level, with a percentage of 1,2%. The Ministry of the Republic of Indonesia through WHO also said that 90% of burn cases occur in countries with low and middle economic status. For the province of East Java, the incidence of burns has a percentage 1,1% (4).

A preliminary study conducted on 10 students of SMPN 2 Krucil obtained data that 90% of them had experienced burns. 70% of student explained that the first aid they did was to apply oil or toothpaste to the burn area, and the other 30% used butter, some used ice cubes because it could provide a moisturizing and cooling effect on the burned skin. The use of toothpaste on burns as the first treatment of burns is not recommended because it can cause a slow healing process and can cause burns to blister further so as to increase the risk of infection. Using butter with the aim of reducing the impact on burns is actually inappropriate because it can cause bacteria to accumulate, and the potential for health infections is higher (Himawan, 2022).

Health education on first treatment of burns delivered through animated videos in addition to being easy to understand will also be very useful for junior high school students. This is based on the character of SMPN 2 Krucil students who tend to have a high sense of curiosity. At their age, they often underestimate health problems and lack concern for the events around them that can happen or can even happen to them. This failure often occurs because it is caused by low knowledge and lack of care where they prefer to play gadgets rather than improve their own knowledge. Therefore, health education on first treatment of burns is expected to change students' views and then encourage them to practice this knowledge in helping the surrounding environment in the event of burns (Himawan, 2022).

Methods

This quantitative research uses the Pre experimental method and one group pretest-posttest design. Meanwhile, to determine the sample in this study, the slovin formula was used. The target of the study was Grade IX students of SMP Negri 2 Krucil which has a student population of 35, and the sample taken by the researcher was as many as 32 students with criteria that were in accordance with inclusion and exclusion.

1. Inclusion criteria (general characteristics)
    a. Junior high school students who are in grade IX of SMPN 2 Krucil for the 2024 school year.
    b. Students who are willing to attend and are ready to become respondents to the research by obtaining informed consent when data collection is needed.
2. Exclusion Criteria (Does not meet the inclusion criteria of)
    a. A junior high school student who was sick at the time of the study.
    b. Junior high school students who are not cooperative in participating in Health Education use an animated video of first aid for burns.

The time of this research occurred from February 15 to February 22, 2024 at SMPN 2 Krucil, Probolinggo Regency. Data collection was carried out for a period of 3 months calculated from the preliminary study. The procedure for collecting this data starts from a proposal seminar, ethical management, a permit letter from the dean, taking care of the letter at the Probolinggo Regency Bangkesbangpol and then submitting the letter to the education office. The researcher continued to submit a research permit to the principal of SMPN 2 Krucil on Tuesday, February 6 and obtained a research permit on Thursday, February 15, 2024.

Before being given an animated video about first aid for burns, the researcher first provided pre-test questions to measure students' readiness using a questionnaire. Then, the researcher provided first aid materials for burns through a 5-minute animated video that was played 3 times. 5 days later, after the students were given health education materials using an animated video of first aid for burns, then the researcher gave a post-test question which was used to measure the extent of the students' level of understanding after watching the video. The researcher also conveyed to the respondents that the animated video can also be accessed on YouTube itself using the respondent's personal cellphone.

The instruments used in this study are animated videos (https://youtu.be/GJ8BGaooCvs?feature=shared) and questionnaires. This research is considered ethically feasible for dr. Soebandi university according to number

47/KEPK/UDS/I/2024. During the study, the researcher provided educational instructions and asked respondents to fill out informed consent and questionnaires. Then, the data was processed with the SPSS computer program version 26. This statistical analysis data uses a wilcoxon statistical test (non-parametric).

Results

The following shows the data on the characteristics of the respondents.

Table 1. Characteristic of Responden

Category	Frequency (n)	Persentage (%)
Age (old)		
13-14	23	71,9
15-16	9	28,1
Sex		
Girl	15	46,9
Boy	17	53,1
Knowledge Before Education		
Less	24	75,0
Enough	8	25,0
High	-	-
Demeanor before Education		
Less	27	84,4
Enough	4	12,5
High	1	3,1
Action before Education		
Less	19	59,4
Enough	12	37,5
High	1	3,1
Knowledge After Education		
Less	-	-
Enough	11	34,4
High	21	65,6
Demeanor After Education		
Less	1	3,1
Enough	9	28,1
High	22	68,8
Action After Education		
Less	-	-
Enough	12	37,5
High	20	62,5

Based on table 1, the data presented in the table above, it shows that out of 32 respondents aged 13-14 years, 23 (71.9%). The most gender was male with 17 respondents (53.1%). The indication of students' readiness before being given health education for the first treatment of burns with the category of the most knowledge was less with a percentage of 75.0%, while the category with the most attitudes was less by 84.4%, and the category with the most actions was less by 59.4%. Meanwhile, the indication of students' readiness after being given health

education for the first treatment of burns with the most knowledge was ready at 65.6%, while the most category of attitudes was ready at 68.8%, and the most action category was ready at 62.5%.

Table 2. Students' Readiness Before and After Being Given an Animated Video on First Aid Health Education in Burns

Variable	Readiness before Education		Readiness after Education	
	Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)
Very Ready	1	3,1	23	71,9
Ready	4	12,5	9	28,1
Not Ready	27	84,4	-	-

Based on table 2., it shows the readiness of students before being given an animated video about first aid for burns, as many as 27 students, 84.4% are in the poor category. Meanwhile, the readiness of students after being given an animated video about first aid for burns in the most categories was ready for 23 students 71.9%.

Table 3. Wilcoxon Test

Variabel	N	Positive rank	*p value*
Pre test-Post test Readiness	32	16,00	,000

Based on table 3., there are differences in students' readiness before and after being given an animated video about the first handler of burns. The results of the bivariate test using the wilcoxon test that the p-value of 0.000 < 0.05 can be drawn, so it can be concluded that Ha is accepted, which means that there is a difference in the readiness of students before and after being given an animated video about the first handler of burns.

Discussion

Characteristic Respondent

A total of 32 respondents in this study based on age, most of the respondents were at the age of 13-14 years with a total of 23 students with a percentage of 71.9%. On average, students aged 13-14 have higher emotions of learning independence compared to students aged 15 and 16. Meanwhile, students who are 15 years old tend to have study habits that refer to behavioral aspects and higher grades compared to students aged 13-14 years (Ginanjar et al., 2023). 13-16 year olds are very suitable to be given animated videos about the first handler of burns because at that age, they often underestimate health problems and also lack sympathy so they often ignore the events that occur in the surrounding environment.

According to the data from the results of the frequency analysis conducted in this study, a conclusion was obtained stating that most of the respondents were male as many as 17 respondents with a percentage of 53.1%. In general, men's ability to think is lower than that of women because men's verbal skills affect the learning process and knowledge in the surrounding environment (Nasir, et, 2023). This shows that gender can also affect a person's ability to think in applying their form of knowledge. Because in general, women's development is faster when compared to men's, this factor can also affect emotional, social and when using knowledge and problems mentally.

Students' readiness before being given an animated video of first aid for burns

The readiness of students in this study was carried out on grade IX students of SMPN 2 Krucil, Probolinggo Regency about the readiness of students for first aid for burns before being given health education using animated videos was in the category of less than 84.4%. When health education has not been provided, students' readiness to provide first aid to burns shows a lack of category. Where the action when giving first aid to the burn blisters on the wound is solved, and there are still some students who still use toothpaste and butter to apply to the burn area. Meanwhile, smearing wounds with butter can trigger a buildup of bacteria (Himawan, 2022).

Student readiness can be affected by knowledge, attitudes, and actions. Readiness is an individual's holistic state that facilitates the response and execution of certain activities that involve mental aspects, skills, and attitudes that need to be prepared. Student readiness refers to the general circumstances that allow them to act or respond to situations in the way they want. Learning readiness is an aspect that must be met before starting the learning process. Because without adequate preparation, the learning process can be hampered (Rifqiyah & Nugraheni, 2023).

Students' readiness before being given health education using animated videos has not been formed when carrying out the first treatment of burns because they do not have basic knowledge about how to handle burns properly and correctly. When science has not been given health education animation videos, there are factors that can affect readiness in an indirect way, namely age, gender, and knowledge. So that this study requires additional information so that the knowledge obtained by the respondents can be applied directly in the form of good and correct first treatment actions for burns.

Students' readiness after being given an animated video of first aid for burns

The readiness of students for first aid for burns after being given health education using animated videos is in the ready category with a percentage (71.9%), and others (28.1%) can be classified in the category of sufficient to carry out first aid for burns. From the results of the study, there was a significant change in the readiness of students to provide first aid. In individual readiness there are several aspects that can affect this, one of which is education, knowledge and experience. Another factor that can also affect readiness is the attitude of adaptation to a condition which consists of two aspects, namely internal and external (Reski, 2019). Students who are ready to learn tend to be more focused and try to remember the material taught by teachers and researchers in order to achieve learning goals and get better results (Almira Salsabila Majid et al., 2023).

Knowledge can be obtained through a person's experience which is done directly or indirectly. Learning that is practiced directly by students will gain deeper knowledge and understanding than students who do not follow learning practices directly. Learning that uses media such as pictures, photos, movies, and videos to explain the subject matter will be very helpful for teachers. This method will not only save explanations and time, but it will also be easier for students to understand. This method of learning using media can attract interest in learning, reduce misunderstandings, and ensure that information can be conveyed more consistently (Prihatina, n.d.).

Health education is an activity that is carried out with the aim of increasing students' understanding so that students can better understand a behavioral relationship between unhealthy or unhealthy students to be healthier through education or education on health behaviors (Herlianita et al., 2020). Health education is a non-formal education to increase knowledge about the importance of correct health management in events that occur around it. A person's age is related to the experience and education that a person has, the wider his experience, the more knowledge he has (Livolina et al., 2023).

It can be concluded that there is a change in the student's readiness score after being given a health education animation video about the first treatment of burns, with the provision of the health education animation video can affect the student's readiness. Starting from students who do not know to know, understand, and can also practice first treatment of burns individually. Proper handling of burns is very necessary so that the impact does not become severe.

Analyze the difference in students' readiness before & after being given an animated first aid video of burns

The readiness of students obtained from the results of research conducted by the researcher showed that 32 respondents before being given animated videos found that 27 respondents were in the category of less with a percentage (84,4%). Meanwhile, after being given an animated video, 23 respondents were in the ready category with a percentage (71,9%). After the Wilcoxon test obtained indigo P-Vallue 0,000 < a (0,05), it can be concluded that H0 is rejected while Ha is accepted. From these results, it can be concluded that there is a positive difference in values between pre and post

According to Edgar Dale's theory, students' level of understanding can vary based on the learning methods used. Students who only read will achieve comprehension of about 10%, while students who only listen will have comprehension of 20%. If students look at the images directly, their comprehension can increase by up to 30%. Meanwhile, if students are involved in simulations and perform real actions, the level of student understanding reaches 90%. This is because students are actively involved in the learning process, which allows them to achieve the highest level of understanding (Prihatina, n.d.).

In line with research conducted by Siti Aisah (Emergensi et al., 2021) stated that animated videos can increase knowledge in a person before and after being given animation video interventions. This happens because animated videos can provide more interesting information so that it will be more durable embedded in human memory because animated video media can utilize sound, images, and text to clarify the message conveyed. This method also involves aspects of cognitive, auditory, vision, and psychometric skills, thus making the learning process more interesting and effective. This shows that health education using animated videos carried out by researchers has succeeded in achieving its goal, namely animated videos are used to add scientific insight. An animated video is similar to a video or movie to show animated characters moving followed by corresponding audio. This animated video is believed to increase focus on students because the material is easier to receive according to learning objectives (Irawan et al., 2023).

The use of animated videos in health education is considered very effective because this learning process has the potential to understand the material faster and improve long-term memory in respondents. The learning method that uses animated videos on students is very useful because students can directly see the material presented through animation, pictures as well as hear the audio played through the animated video. Students in their teens are very suitable to be given health education using animated videos because the learning system will not make students bored and bored while the material is being provided. Because at the age of still being a teenager, they tend to be more interested in a learning system that presents theory

while imagining and directly putting it into practice. This can affect students' readiness because the presentation of theory using animated videos is not too verbal and does not seem formal. First aid education delivered through this animated video can provide changes in respondents' understanding of burn aid before and burn relief after intervention with animated videos.

The obtained result then discussed by comparing with the results of previous research. Other source of references (of the previous researches) aimed to strengthens the argumentation of the results of research that has been done. The sources of references in the discussion must meet the scientific requirements (journal, textbook or proceeding). The explanation must be in line with the result and supported cohesively. The discussion must be gave strong support and they are not repetition from the introduction.

Conclusion

The conclusions of the researcher are as follows:

1. Before being given the animation video intervention, most of the students' readiness was in the category of less prepared.
2. After being given the animation video intervention, most of the students' readiness is in the very ready category.
3. There is a difference in student readiness when they have not yet and when they have been given intervention using animated videos.

The suggestions from the researcher are as follows:

1. Just an input for institutions and educators so that they can better improve students' knowledge and skills in non-academic fields. And teaching staff are also expected to take advantage of technological advances such as animated videos that can be applied in the learning process to support student knowledge so that the material is easier for students to understand and digest.
2. Suggestions for students to continue to improve academic and non-academic competencies independently by utilizing technological advances such as animated videos by not relying on the material provided by the teacher alone.
3. Suggestions for future researchers so that health education and counseling can continue to be carried out to increase the awareness of students and the public about the importance of health science and first aid in daily life.

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