

## Student Motivation in First Aid Education for Burn

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### INTRODUCTION:

Burns are an emergency cases that occur anytime and anywhere, whether in the home, industry, traffic accidents, or even as a result of natural disasters (Dityawardani, Ekaprasetia, and Darotin 2023). Causes of burns include radioactivity, electricity, contact with chemicals, and heat sources such as fire and hot water.

(Darotin 2023; Siregar et al. 2023; WHO 2018). Most people did not know how to provide for burn cases, Such as applying butter, oil, toothpaste (Ramdani 2019).

Burns have become a global public health problem that causes the death of around 180,000 people each year. Most occur in several low- to middle-income countries, and almost

### ABSTRACT

**Background :** Currently, there are wrong actions for provide in first aid for burns. However, burns can become a medical emergency if not treated properly. Infection, tissue damage is one of the sequelae that often appears. Motivation has considered as factors that can influence a person to provide first aid if there is a case of burns. Objective: The Object of this research is to determine differences motivation in first aid education for burn in SMPN 1 Kalisat. **Methods :** The method of this research used quasy-experiment with one group pretest-posttest design. The are 384 student for this population and the sample taken is 96 respondents using probability sampling techniques. The research instruments used documentary films and motivation questionnaires. This research test used the Wilcoxon tests. **Results:** Before screening the documentary film, motivation was in the strong category. After the screening of the documentary film, the students' motivation was in the strong category. Statistical test used Wilcoxon test with P Value < 0,05 that means there were differences in students' motivation before and after the screening of the documentary film on first aid for burns at SMPN 1 Kalisat. **Conclusions:** Student motivation can be increased with health education interventions in providing first aid for burns. This increased motivation is due to increasing the confidence and knowledge of students who receive health education in the form of documentary film.

**Keyword:** Burn; First Aid; Motivation.

two-thirds occur in Southeast Asia and Africa (WHO 2018). According to Riskesdas (2018), From January to August 2022, the prevalence of burns increased from 0,6% to 1,3%, of the Indonesian population aged 15-24 years.

Burn can occur when the surface of the skin accidentally or intentionally comes into direct contact with the source so that the skin, capillaries and blood cells are damaged, characterized by redness, a dry appearance, bubbles, minimal or no edema, pale when pressed with the fingertips, the wound appears as erythema with complaints of pain and hypersensitivity in the area around the wound (Supia and Yuniartika 2020). Extensive burn cause general body edema in both the injured area and non-burned tissue and there is a decrease in intravascular blood volume circulation. Heart rate increases in response to catecholamine release and relative hypovolemia occurs, which initiates a decrease in cardiac output. Hematocrit levels increase, indicating hemoconcentration of intravascular fluid loss. In addition, fluid loss by evaporation through wounds occurs 4-20 times greater than normal. While normal fluid loss in adults with normal body temperature per day is 350 ml. This condition can result in decreased organ perfusion. If the intravascular space is not refilled with intravenous fluids, hypovolemic shock and the threat of death for patients with extensive burn can occur. According to Rismana and Rosidah, Idah; Y, Prasetyawan; Bunga, Olivia: Y. (2013), states that all burn (except minor or severe first degree burn) can cause complications in the form of shock, dehydration, secondary infection and electrolyte imbalance if not treated immediately (Moenadjat 2006; Siregar et al. 2023).

First aid guidelines for injuries are expected to reduce morbidity and mortality. Several studies also state that adolescents should already be able to perform first aid. The level of knowledge, attitude and skills of students in first aid actions is still considered lacking (American Heart Association 2021).

Therefore, innovation is needed in delivering health information using innovative media to determine the difference of films documenter on student's motivation to provide first aid for Combutio at SMPN 1 Kalisat.

#### **METHODS:**

This research method uses a quasi-experimental method with a pretest and posttest design. The population of this study was 8th grade students of SMPN 1 Kalisat. The population in the study was 384 respondents. The research sample was 96 respondents. The location at SPMN 1 Kalisat in June 2023. The population was 384 students of class VIII of SMPN 1 Kalisat and a research sample of 96 was obtained using the simple random sampling technique. This study has inclusion criteria of 1) students of SMP Negeri 1 Kalisat, Jember Regency, 2) aged 11-14 years, 3) willing to be respondents. Exclusion criteria 1) students did not participate in all research sessions. Motivation use questionnaire instrument. The items on the measurement consist of 10 question items using the Linkert scale with a range of 1-4 ranging. There are 4 categories: strongly agree, agree, disagree, strongly disagree. The questionnaire is valid and reliable with a value of 0.789. Documentary film intervention in providing first aid for burn. The burn first aid educational video lasts 5 minutes and is repeated 3 times in 1 session. Educational videos can be accessed on the YouTube(<https://www.youtube.com/watch?v=YsgajNlt5-I&t=254s>). This study has obtained Ethical Eligibility from the KEP Faculty of Dentistru, University of Jember No. 1988UN25.8/KEPK/DL/2023. Univariate data in this study are the variables of and motivation, Bivariate data analyzes the differences student motivation variables before and after the provision of educational videos on first aid for burn in SMPN 1 Kalisat with statistical using Wilcoxon Test the SPSS 25 application.

**RESULTS:**

**Variabel Univariate**

**Table 1** Frequency distribution of student’s motivation in first aid education for burns at SMPN 1 Kalisat

Variabel		Frequency (f)	Present (%)
<b>Motivasion</b>			
Motivation before Health Education	Strong	64	66,7
	Moderate	32	33,3
	Weak	0	0
Motivation after Health Education	Strong	88	91,7
	Moderate	8	8,3
	Weak	0	0
<b>Total</b>		96	100

(Data Source: Primary Data, 2023)

From table 1, we know that the majority Students’ motivation before education was strong category for 64 respondents (66,7%). Students’ motivation after education was strong category of 88 respondents with a percentage of 91,7%. Motivation to provide first aid in cases of burns after being given documentary film was increase from 64 respondent (66,7%) to 88 respondent (91,7%)

**Variabel Bivariate**

**Table 2** Analysis of Students’ motivation Before and After in first aid education for burns at SMPN 1 Kalisat

	n	Mean Rank	Sum of Rank
Negatif Rank	4 <sup>a</sup>	16,50	66,00
Positive Rank	28 <sup>b</sup>	16,50	462,00
Ties	64 <sup>c</sup>		
Total	96		
Z		-4,243 <sup>b</sup>	
Asymp. Sg. (2-tailed)		,000	

(Data Source: Primary Data, 2023)

From table 2, P value = 0,000 (p <0,05).

We used Wilcoxon test and it means that there are a difference students’ motivation for first aid for burn in health education with documentary film at SMPN 1 Kalisat.

**DISCUSSION:**

**Students' Motivation before Education with Documentary Film about First Aid for Burn**

The research showed that the students’ motivation before receiving education with documentary film About First Aid for Burn was known to be in the strong category on average for 64 respondents with a percentage of 66,7%. Students’ motivation is for encouragement from within the individual or the environment to act or do something according to the goal. Therefore, motivation is related to the encouragement and purpose of carrying out self-care management (Arimbi, Lita, and Indra 2020). Motivation is one of the factors that supports behavioral changes towards the better.

According to Huston (1985) motivation is focused on the following factors: intensity, initiation, persistence and direction. These factors determine the desired behavioral attitudes.

The data obtained the study students' motivation before education with documentary film about first aid for burn in strong category. They got information from the internet before health promotion about first aid for burn was carried out. Economic factors have an influence on motivation to access information through various media. The higher the income, the easier it will be to obtain information (Christianingsih 2021).

Before receiving education with documentary film about first aid for burn, most students generally have internal learning motivation with a high dependence on external stimuli such as grades or praise. Students tend to be unaware of the need for independent learning and are often less active. This indicates the importance of research education.

### **Students' Motivation after Education with Documentary Film about First Aid for Burn**

Students' motivation for first aid for burn after being given health promotion was in the strong category, with 88 respondents with a percentage of 91,7%. Motivation for helping burn after being given health promotion was on average in the medium category with 8 respondents with a percentage of 8,3%.

According to (Rahman 2021), Learning success is determined by the motivation possessed by students. Motivation that can influence behavior in decision-making on the actions taken. In this case, it is related to decision-making in providing first aid to burns to victims. High motivation is likely influenced by a sense of social responsibility to provide medical assistance at school. Motivated individuals will be more careful in paying attention to procedural details (Heni 2026; Lestari 2020).

Scientific studies regarding the knowledge and motivation of ordinary people as first responders in Indonesia are still limited. Research states that motivation to perform initial first aid is influenced by a person's knowledge (Suastrawan, Saputra, and Yanti 2021). First aid for burn can reduce the damage caused by burn. (Hiamawan 2022).

From the data obtained from research before providing audio visual health education on first aid for burn, the average motivation of students in the strong category was 91,7%, this happened because they had received audio visual health promotion on first aid. burn so that students' motivation changes for the better, while the average motivation of students in the medium category 8 respondents is 8,3% because they may not pay attention and listen to the audio-visual health promotion about burn.

Providing education, particularly audiovisual/video-based, has been shown to positively increase students' motivation to administer first aid to burns. Motivation increases because students feel more confident, have the correct knowledge, and understand the importance of prompt and appropriate

treatment. Students feel more confident and less afraid to administer first aid because they understand the correct steps, such as using running water instead of inappropriate materials.

### **Differences in Students' Motivation Before and After Education with documentary film About First Aid for Burn**

There was different of audio-visual media health promotion on motivation for first aid for burn at SMPN 1 Kalisat as many as 96 respondents and the Wilcoxon test was carried out to obtain a p value = 0.000, it means that there is difference of students' motivation for first aid for burn at SMPN 1 Kalisat.

The shift in the development of education about first aid, which previously focused on health workers, to students, student motivation and behavior are important for success in creating an emergency response community (Pellegrino and Asselin 2020). First aid is to carry out the first actions to reduce the occurrence of complications. The development of a wound can be determined based on the first action taken, if the initial action is good and correct then infection will not occur or the healing time will take longer, but on the other hand, if the initial action taken is incorrect it will affect the wound healing time (Hiamawan 2022).

The use of educational media also influences knowledge. Age-appropriate and engaging media can increase students' interest in acquiring information (Ratiyun et al. 2023). The more knowledge gained from health education, the more self-confidence will increase, thus increasing motivation in providing first aid (Subandi et al. 2024). Knowledge is closely related to education, where it is hoped that with higher education their knowledge will broaden. Economic factors also influence finding out or accessing all information from various print and electronic media. The higher the income, the better the ease in finding information (Christianingsih and Puspita 2021).

From the research that has been carried out, student motivation in the strong category

before receiving audio-visual health promotion for first aid for burn, as many as 66 respondents, experienced an increase in motivation after receiving audio-visual health promotion for first aid for burn, strong motivation for 88 respondents. This happened because they had audio-visual health promotion was carried out for first aid for burn, while the average motivation was 32 respondents before documentary film health promotion for first aid for burn was carried out, and a decrease of 8 respondents after audio-visual health promotion for first aid for burn was carried out.

Students' motivation in providing first aid for burns is influenced by their level of knowledge, understanding of proper first aid techniques, and a strong sense of curiosity. Therefore, it's important to spark their curiosity to encourage them to learn new things.

#### CONCLUSIONS:

Differences in Motivation in Providing First Aid for Burns to Students at SMPN 1 Kalisat obtained the following conclusions: Student's motivation before education with documentary film about first aid for Burn is in the strong category. Student's motivation after education with documentary film about first aid for Burn is in the strong category. From statistical test shows that there are different of education with audiovisual media use documentary film about first aid on students' motivation at SMPN 1 Kalisat.

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