

The Effect Of Basic Life Support Health Education In First Aid Accident In Public Senior High School 3 Sidoarjo

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ABSTRACT

Introduction: Basic life support is the action taken by the whole community to help victims who are in a state of threat. Low levels of students' knowledge related to Basic Life Support have an impact on the emergence of forms of prosocial attitudes and behaviors such as helping. This research aims to find out the influence of health education about basic life support on the act of first aid accidents in the cognitive, affective, and psychomotor realms in the Senior High School 3 Sidoarjo. **Methods:** The type of research used is a one-group pre-post test design. The research population is class X and XI students who are active in the pmr organization of Senior High School 3 Sidoarjo as many as 33 people. Sampling using probability technique: simple random sampling with a sample of 30 people. The data is analyzed with a software application using Wilcoxon test with $\alpha=0,05$. **Result:** Statistical tests show that there is a significant influence between basic life-support health education and first aid action in school environments (p-value 0.000). **Conclusion:** The increasing the level of knowledge of students, the more affective and psychomotor levels of students, so that the action of first aid accidents in the school environment the better. **Recommendation:** It is expected that the school will always do health education periodically to improve students' ability regarding basic life assistance so that there is an increase in performing first aid accidents in the school environment.

Keywords: Health Education, Basic Life Support, First Aid

INTRODUCTION

Traffic accidents are a public health problem that is included in non-communicable diseases. According to Law No.22 of 2009 on Traffic and Road Transport, a traffic accident is an unexpected and accidental road event involving a vehicle with or without other road riders resulting in human and/or property casualties. The increase in the number of motorcycle vehicles has the highest number of increases. The main cause of traffic accidents based on Haddon's Matrix consists of three factors, namely human factors, environmental factors, and vehicle factors that are divided into three stages, namely in the pre-crash stage, the stage of the accident, and post-accident (Soffania, 2019). Accidents happen all the time and for some age groups are the single leading cause of death (Annas, 2016). Traffic accidents for young people, who drive vehicles quickly. Aggressive driving behavior is an act intentionally committed in driving that tends to increase the risk of traffic accidents motivated by impatience, annoyance, hostility, and/or attempts to save time (Soffania, 2019). Factors that influence aggressive driving habits are age, which is high mostly involving male drivers between the ages of 17-35 years and while women show lower levels of aggressive driving habits, driving skills can be demonstrated by a driver's experience in driving and driver's license ownership (Soffania, 2019). Adolescence that lasts between the ages of 10-19 years where at that age does not have a driver's license. So they tend to drive at unstable speeds and make movements that endanger other drivers. The Global Status Report on Road Safety (WHO, 2015) states that every year, worldwide, more than 1.25 million victims die from traffic accidents and 50 million people are seriously injured. Of these, 90% occur in developing countries. (World Health Organization 2015 in KOMINFO 2017). In Indonesia, motorcycle accidents are the largest contributor to traffic accidents. Korlantas Polri statistics show that motorcycles are the largest contributor to traffic accidents in the two quarters of the period at the end of 2016 and the beginning of 2017, which was 63,251 incidents. In Indonesia, the most traffic accidents occurred between the ages of 15-19 years with a figure of 4414 people in 2017 (Korlantas Polri, 2017 in Soffania, 2019). Adolescence is a transition from childhood to adulthood that lasts between the ages of 10-19 years. Especially at this age, which is the transition period experienced by students will affect the mindset, attitudes and behavior patterns. A student will tend to search for themselves.

Sidoarjo Regency is the region with the second highest accident rate in East Java after kediri regency with an incident rate of 1287 victims (Central Statistics Agency, 2013 in Soffania, 2019). Basic life support is

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an action taken to help victims who are in a state of threat (East Java PPNI Training, 2016 in Wulandari, 2016). Basic Life Support is an emergency measure to free the airway, aid breathing and maintain blood circulation without the use of aids. This help must be given quickly and appropriately, because incorrect handling can be bad, disability and even death in accident victims (PUSBANKES 118 DIY 2014 in Annas, 2016). Basic Life Support is one of the efforts that must be done immediately by someone if they find a victim in need therefore, every health worker must master basic life support (Keenan, Lamcraft Joubert, 2009). Based on the results of a survey of researchers to the trustees of the extracurricular organization PMR Senior High School 3 Sidoarjo, it was found that most members of the organization did not have the courage to perform first aid when outside the organization's duties or outside of school. This is because they are rarely trained overall on Basic Life Support first aid, so they do not have enough knowledge and courage to provide assistance both in school and outside of school. And few members are routinely trained on Basic Life Support first aid due to race events. Basic life-aid knowledge can shape attitudes or helpful behaviors for students. According to research Dhikaloni Purba (2019), after interviewing students of the teenage red cross (PMR) Health Vocational High School Wira Husada Medan about basic life support knowledge there are some people who do not know about providing basic life support to others. And according to Utami's research (2009) often adolescents are less concerned and understand when they need Basic Life Support training or also called first aid, when they need it when they become part of a socially responsible society. Still low levels of knowledge of students related to basic life support have an impact on the emergence of forms of prosocial attitudes and behavior towards those around them. The first hour is a very important time in the rescue of accident victims, which can reduce up to 85% of the death rate. The help referred to here is basic life support (Pamaya 2014 in Ambarwati 2015). Based on the description above, researchers are interested in finding out about the influence of Basic Life Support health education on accident first aid actions in the cognitive, affective, and psychomotor realms in the Senior High School 3 Sidoarjo.

METHODS

The design used in this study is pre-experimental with this type of research that is one-group pre-post test design. One group pre-post test design is a study involving one group of subjects, which is then observed before intervention, then observed again after being given intervention. The population in this study was students of grades X and XI at Senior High School 3 Sidoarjo who were active in PMR organizations, with a population of 33 people with a large sample of 30 people who had met the inclusion criteria. Sampling technique using probability sampling is simple random sampling which is each element selected randomly with independent variables, namely health education with basic life support and dependent variables that are students' ability in accident first aid. How to collect data using questionnaires on basic life support as well as demonstration videos. How to collect data using questionnaires on basic life support as well as demonstration videos. Data is collected through Google's online application forms and virtual interviews through software applications.

RESULTS

General Data

Table 1. Identification of gender, age, previous Basic Life Support training experience, and experience performing accident First Aid on Senior High School 3 Sidoarjo students in April 2021

Characteristics	Criterion	Frequency (f)	Percentage (%)
Gender	Girl	28	93,7
	Boy	2	6,3
Total		30	100
Grade	X	17	56,7
	XI	13	43,3
Total		30	100
Have Received Basic Life Support Education	Once	3	10

	Never	27	90
Total		30	100
Have Done First Aid	Once	2	6,3
Act	Never	28	93,7
Total		30	100

Table 1 shows that of the female sexes there are 2 people or 6.3% of the male sex, and 28 or 93.7% are female from 30 students who are active in the pmr organization of State High School 3 Sidoarjo. From. Then of the 30 students of class X and XI of which 17 people or 56.7% are students of class X and 13 people or 43.3% are students of class XI. From the data obtained is in accordance with the criteria of inclusion of researchers. Students who get basic life support health education as many as 3 people or 10% of 30 students and while students who have done first aid accidents are 2 people or 6.3% of 30 students.

Special Data

Table 2. First aid action accident in the environment of Senior High School 3 Sidoarjo in the cognitive realm before and after being given basic life support health education in April 2021

Cognitive	Pre Test		Post Test	
	Frequency	(%)	Frequency	(%)
Good	14	46,7	28	93,3
Enough	16	53,3	2	6,7
Not Enough	0	0	0	0
Total	30	100	30	100

Based on table 2, cognitive levels are known in performing accident first aid measures in the Sidoarjo State High School environment. In the pre-test cognitive realm it was found that 14 students or 46.7% had a level of knowledge "Good" and as many as 16 students or 53.3% had a level of knowledge "Enough" and no students who had a level of cognitive "Less". In the post test cognitive realm it was found that 28 or 93.3% of students had a level of knowledge "Good" and 2 or 6.7% of students had a level of knowledge "Enough" and no student has a level of cognitive that is "Lacking".

Table 3. Emergency first aid measures in the Senior High School 3 Sidoarjo environment in the affective realm before and after being given basic life support health education in April 2021

Affective	Pre Test		Post Test	
	Frequency	(%)	Frequency	(%)
Positive	30	100	30	100
Negative	0	0	0	0
	Frequency	(%)	Frequency	(%)
Total	30	100	30	100

Based on table 3, it is known that the affective students in performing first aid actions in accidents in the environment of Senior High School 3 Sidoarjo. In the pre-test of the affective realm it was found that 30 students or all students had a level of "Positive" attitude and no students had a level of attitude that was "Negative". In the post test of the affective realm it was found that 30 or all students had a "Positive" attitude and no student had a level of attitude that was "Negative".

Table 4. First aid action accident in the environment of Senior High School 3 Sidoarjo in the psychomotor realm before and after being given basic life support health education in April 2021

Psychomotor	Pre Test		Post Test	
	Frequency	(%)	Frequency	(%)
Good	7	23,3	23	76,7
Enough	22	73,4	7	23,3
Not Enough	1	3,3	0	0
Total	30	100	30	100

Based on table 4, the psychomotor level of students in performing first aid actions in accidents in the environment of Sidoarjo State High School. Pre-tests in the psychomotor realm found that 7 or 23.2% of

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students had a "Good" level of action, and 22 or 73.4% of students had a "Sufficient" level of action, and 1 or 3.3% of students had "Less" actions. In the post test in the psychomotor realm it was found that 23 or 76.7% of students had a "Good" level of action and 7 or 23.3% of students had a "Sufficient" level of action and none of the students had a "Less" psychomotor level.

Table 5. The effect of basic life support health education on accident first aid measures in the Senior High School 3 Sidoarjo environment in April 2021

	Before		After		Sig	α
	Frequency	(%)	Frequency	(%)		
Cognitive						
Good	14	46,7	28	93,3	0,000	0,05
Enough	16	53,3	2	6,7		
Not Enough	0	0	0	0		
Total	30	100	30	100		
Affective						
Positive	30	100	30	100	0,001	0,05
Negative	0	0	0	0		
Total	30	100	30	100		
Psychomotor						
Good	7	23,3	23	76,7	0,000	0,05
Enough	22	73,4	7	23,3		
Not Enough	1	3,3	0	0		
Total	30	100	30	100		

Table 5. The effect of basic life-support health education on accident first aid measures in high school environments Based on table 5. It is known the results of the test of the effect of basic life support health education on the actions of students in performing accident first aid actions in the Senior High School 3 Sidoarjo environment. Before the data test, the data that has been obtained first is carried out a normality test. Normality tests in the cognitive, affective, and psychomotor realms are obtained sig < α 0.05, so that data in the cognitive, affective, and psychomotor fields are distributed abnormally so that the data test used is the Wilcoxon test. Based on the data test conducted, there was an influence of health education on the first aid action of accidents in the Sidoarjo State High School environment. Students' cognitive, affective, and psychomotor abilities gained improvement or influence after being given health education on basic life support. Evidenced by the results of the Wilcoxon test with a sig (2-tailed) value of < α 0.05 so that the conclusion of the test result is H0 rejected or can be interpreted that there is a difference or influence of health education about basic life support on accident first aid measures in the Senior High School 3 Sidoarjo.

DISCUSSION

1. First Aid Action Accident In The Environment of Senior High School 3 Sidoarjo in the Cognitive Realm Before And After Being Given Basic Life Support Health Education.

Based on the results of this study it was found that in the cognitive realm / level of ability of state high school PMR members 3 Sidoarjo about the act of first aid before being given basic life support health education is a small percentage have a good level of knowledge and most have a sufficient level of cognitive and no student has a lack of cognitive level. After being given health education is all students have a good cognitive level and a small percentage have a sufficient level of knowledge and no student has a lack of cognitive level. Students who have ever received basic life support health education have a level of knowledge that is not much different from students who have never received basic life support health education. The results of data obtained by online interviews, obtained the results that before being given health education about basic life assistance some students do not understand at all about the series of basic life support measures so that basic life support health education makes students understand and understand the series of basic life support measures of petama classification. Knowledge is the result of human sensing or the result of knowing a person to objects through the senses they have (eyes, nose, ears, etc.), so that by itself at the time of sensing produces knowledge is greatly influenced by the intensity of attention and perception of the object (Notoatmodjo, 2014). According to Benjamin, S. Bloom 1956 in Indrayani 2014, basically cognitive is the intellectual ability of students in thinking, knowing, and solving problems and

related to thinking skills, including the ability to memorize, understand, apply, analyze, mensistesis, and the ability to evaluate. Another factor that leads to an increase in a student's level of knowledge of basic life support is the curiosity of students. According to Benjamin, S. Bloom 1956 in Indrayani 2014, basically cognitive is the intellectual ability of students in thinking, knowing, and solving problems and related to thinking skills, including the ability to memorize, understand, apply, analyze, mensistesis, and the ability to evaluate. Another factor that leads to an increase in a student's level of knowledge of basic life support is the curiosity of students.

2. First Aid Action Accident In The Environment of Senior High School 3 Sidoarjo in the Affective Realm Before And After Being Given Basic Life Support Health Education.

Based on the results of this study in the affective realm / attitude of students of PMR Sma Negeri 3 Sidoarjo about the act of first aid before and after being given basic life support health education is obtained that all students have a positive attitude and no student has a negative attitude. There is no improvement in the affective realm of students both before and after being given health education on basic life support. Cognitive levels or knowledge levels that increase after the granting of health education have an effect on students' attitudes in first aid actions. Attitude is also a person's closed response to a particular stimulus or object, which already involves the opinion and emotion factors concerned (Notoatmodjo, 2014). Basically the affective realm is a realm related to attitudes and values and some experts say that a person's attitude can be predicted changes when one has high cognitive power. Based on the results of research that has been done, that there is no difference in the attitude of students before and after being given health education about basic life support because students have become accustomed to acting to perform first aid on victims of fainting in school. Because of this, students are trained in behaving and increasingly positive levels of student attitudes when knowledge increases and they understand well.

3. First Aid Action Accident In The Environment of Senior High School 3 Sidoarjo in the Psychomotor Realm Before And After Being Given Basic Life Support Health Education.

Based on the results of research on the realm of psychomotor / skill levels of students of PMR State High School 3 Sidoarjo about the act of first aid before being given basic life support health education obtained that a small percentage of students have a good psychomotor level, and most students have a sufficient psychomotor level, and very few students have a less psychomotor level. While after being given basic life support health education is all students have a good psychomotor level and a small percentage of students have adequate psychomotor levels. In accordance with the results of the study obtained results that, students who have done first aid actions have a psychomotor level that is not much different from students who have never done first aid. The psychomotor realm is the ability produced by human motor function in the form of skills to do something and the skill of doing something includes motor skills, intellectual skills, and social skills. Based on the results of research that has been conducted, according to researchers psychomotor improvement students are also influenced by student curiosity as well as students' interest in appropriate first aid actions. So that students find out about first aid actions by understanding basic life support theories and observing demonstration videos provided, so that students can perform appropriate first aid actions.

4. Effect of Basic Life Support Health Education on Accident First Aid Action In Senior High School 3 Sidoarjo Environment.

In accordance with research conducted by researchers, it was obtained that there is an influence of health education about basic life support on accident first aid measures in the Sidoarjo State High School environment. Students' cognitive, affective, and psychomotor abilities gained improvement or influence after being given health education on basic life support. Evidenced by the many positive improvements between before and after the grant of health education, as well as the results of the Wilcoxon test with a sig (2-tailed) value of $< \alpha 0.05$ so that the conclusion of the test results is that H_0 is rejected or the hypothesis is accepted that there is an influence of health education about basic life support on the first aid action of accidents in the Sidoarjo State High School environment. Health education is very influential on the formation of better knowledge, attitudes and skills of students. Students' attitudes and skills are further improved through response and participation in following the provision of health education, curiosity and learning intentions shown by students. Knowledge should also be followed by good attitudes and skills because from education we can form good attitudes and skills. Researchers assume that to convey material about basic life support by using methods that practice or demonstrate to students is considered more appropriate to use because in addition to students getting information, students also get an idea of the right first aid techniques that can be applied when performing accident first aid actions.

CONCLUSION

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Based on the objectives, results of research, and discussions conducted by researchers, it can be concluded as follows:

1. The level of knowledge of students in the cognitive, affective, and psychomotor realms before being given health education about basic life assistance to first aid accidents in the state high school environment 3 Sidoarjo mostly have sufficient knowledge.
2. Students' level of knowledge in the cognitive, affective, and psychomotor realms after being given health education on basic life support to accident first aid in the Senior High School 3 Sidoarjo environment is mostly well informed.
3. The increasing the level of knowledge of students, the more affective and psychomotor levels of students, so that the action of first aid accidents in the school environment the better.

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