Effect Of Basic Life Support Training Simulation (BHD) On Knowledge And Motivation Of Students About Handling Traffic Accident Incidents

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ABSTRACT

Basic Life Support is the main foundation used to save someone who is experiencing cardiac arrest. Accidents are events that can cause injury or even cause death. Based on a survey at the South Lampung Police, there were 295 accident data in 2020. To know the effect of basic life support training simulation on knowledge and motivation of first aid in road traffic accidents among high school students. A quantitative, using a quasi-experimental design, and two-group (intervention group and control group)pretest-posttest design was carried out at Yadika Natar High School, Lampung.The population of all students with a sample of 32 participants. Collecting data using a questionnaire distributed to participants. Data analysis by univariate (frequency distribution) and bivariate (Wilcoxson test). Finding that most of the participants' knowledge and motivation before the simulation was 6 (37.5%) for knowledge and motivation less than 8 (50.0%). After a simulation of the knowledge level of 16 (100%) participants with 16 (100%) participants having prime motivation. There is a relationship between the basic life support training simulation on increasing knowledge and motivation about handling traffic accidents with a Pvalue of 0.001 for knowledge and a P-value of 0.000 for participants' motivation. There is a relationship between the basic life support training simulation with increasing students' knowledge and motivation about handling traffic accidents at Yadika Natar High School South Lampung in 2021 with an M±SD value before the simulation of 5.56±1.711 for participant knowledge and 47.06±9.657 for participant motivation. Meanwhile, after the simulation, the M±SD value was 7.88±1.408 for participant knowledge and 67.94±3.586 for participant motivation. The researcher hopes that the school can cooperate with the trainers to provide health education and counseling regularly to students about first aid measures in the event of a traffic accident.

Keywords: Basic life support training; Simulation; Knowledge; Motivation; First aid; Road traffic accidents; High school students

INTRODUCTION

Accidents are events that can cause injury or even death all walks of life. As is the case traffic accident, when it happened increasing especially in the countrydeveloped like Indonesia (Wahyuddin, 2020). Globally, we still need to fight for can reduce the number of traffic accidents because a traffic accident killed him nearly 1.3 million people, as well as millions of others injured. We need to know that there are more than 30% of victims of past accidentstraffic namely children and adolescents who are agedless than 25 years. Traffic accidentis the most dangerous killer among childrenyoung people aged 15-29 years (Sukmandari, & Subject, 2020**)**

According to the 2018 Land Transportation Statistics data in Lampung province, in 2017, traffic accident statistics in Indonesia totaled 2,297 accident cases, of which 912 people died, 1.174 people had serious injuries, 2.144 people had minor injuries (LR). In 2018 there were 2,188 cases of traffic accidents in which 817 people died (MD), 1,211 suffered serious injuries (LB), 1,943 people experienced minor injuries (LR) due to accidents (Indonesia, 2018

In the results of the initial data collection survey on February 25 2021 at the South Lampung Resort Police regarding the number of traffic accident incidents in 2020, data obtained that there were 295 cases. During this incident, 123 people died (MD), 232 people suffered serious injuries (LB), and 220 people suffered minor injuries (LR). The survey results also showed that based on the education of traffic accident victims, most of them had senior high school education (SMA) compared to junior high school, elementary and university education. The number of high school (SMA) victims reached 347 people, with the vulnerable age that experienced the most accidents, namely the ages of 16-30 years as many as 34 people

Basic life support is an intervention designed to restore and maintain the function of vital organs in victims of cardiac and respiratory arrest. These interventions include providing chest compressions and rescue breathing. Trauma or non-trauma can cause an emergency, which can cause respiratory arrest, heart attack, organ damage, and bleeding (Syapitri, Hutajulu, Gultom, & Sipayung, 2020)

Motivation is a conscious effort to influence one's behavior so that one's heart can act to do something to achieve certain results or goals. Motivation is also the driving force that makes people act or behave in a motivated way, desire, stimulation or impulse. Refers to the causes of certain behaviors (Irman, 2019)

Through the results of the provisional analysis it was found that the main cause of students' low knowledge and motivation regarding basic life support was due to a lack of exposure to information on how to carry out basic life support in the event of a traffic accident. The lack of student knowledge can cause the student's motivation to be lacking as well. This is because knowledge and motivation have a close relationship, where the higher the level of knowledge, the higher the motivation to apply the knowledge they have.

Based on these problems, the researcher is interested in further researching the effectiveness of basic life support training simulations on increasing knowledge and motivation students about handling traffic accidents

METHOD

Quantitative research with a quasi-experimental design and a two-group pretest posttest research design. The population is SMA Yadika Natar South Lampung with participants as many as 32 students, using purposive sampling. This research was conducted at Yadika Natar High School, South Lampung.

The activities are assisted by 2 assistants and 2 presenters who are certified Basic trauma Cardiac Life Support (BTCLS) with active certificates. The procedure for implementing it is that first the researcher contacted 2 assistants who assisted in the research, the researcher conducted 2 days of meetings with the assistants to discuss matters needed in the research process and prepared materials to carry out the research. The researcher contacted the agency again to ask permission from the agency so that participants could come to school to take part in basic life support training simulation activities. When the school has allowed and determined the schedule for carrying out the training simulation, the researcher gave confirmation again to the 2 research assistants to prepare and re-check the material to be provided

In (the intervention group) on the day of the basic life support training simulation, before entering the room the participants were required to use a hand sanitizer that had been provided by the researcher and wear a mask. Participants are asked to sit down and write down the attendance list that has been prepared by the researcher, and the researcher introduces his name and purpose. The researcher distributed and explained the willingness sheets to become participants in the study and provided writing tools to the participants which were used to answer the questions. After filling in the willingness sheet, the researcher distributed knowledge and motivation pre-test questions to the participants before the start of the presentation of the material about basic life support. then the researcher invited the presenter to deliver material related to basic life support for 30 minutes, after the presenter finished delivering.

The material is continued with a demonstration of the steps for carrying out basic life support which is carried out for 30 minutes. After the demonstration is over, the participants are allowed to ask questions to the speaker, before the participants practice basic life support steps as demonstrated by the speaker. Participants were grouped in pairs to re-enact the steps for providing basic life support. One pair of participants takes ± 15 minutes to demonstrate it. After completion, the researcher distributed the questionnaire again (post-test) and then gave prizes to participants who asked or were able to answer the questions given by the speaker

In the control group of 16 participants, they were not required to attend and they only attended lectures in class or online, only collected on the first day and the last day with the intervention group to take part in the pre and posttest regarding students' knowledge and motivation about handling traffic accident incidents

RESULTS

Tabel. 1 Frequency Distribution of Participant Characteristics

Characteristics of Participants	Intervensi Group	Control Group
Age(Mean+SD)(Range)(Years)	(16.25±0.683)(15-17)	(15.27±0.684)(14-17
Gender		
Male	8/50	7/43
Female	8/50	9/57
BHD Resources (n/%)		
- From Master	2/12.5	4/25
From Website	14/87.5	12/75

Tabel. 2 Effect of Training Simulation on Participant Knowledge and Motivation

Variabel	Intervensi Group	Control Group	*p-value*
Knowlege (Mean±SD)(Range)			
- Before Simulasi	(5.56±1.711) (4-9)	(6.63±2.811) (5-9)	
- After Simulasi	(7.88±1.408) (5-10)	(8.98±3.408) (5-10)	0.001
-			
Motivation (Mean±SD)(Range)			
- Before Simulasi	(47.06±9.657) (35-60)	(56.08±8.797) (40-60)	
- After Simulasi	(67.94±3.586) (62-76)	(75.84±9.686) (72-76)	0.000

DISCUSSION

Based on the results of the study, it was found that the level of knowledge of the participants before being given a simulation showed that of the 16 participants in this study, the results obtained were 10 (62.5%) participants had good knowledge, 6 (37.5%) less knowledgeable participants. While the knowledge of the participants after the training simulation was carried out, namely 16 (100%) participants had good knowledge. So it can be concluded that there is a difference or an increase in the value of knowledge before and after the training simulation is carried out. This research is in line with previous researchers where there were respondents with a good level of knowledge as many as 24 (63.2%) of respondents who were conducted at SMAN 02 Kota Bima (syaiful, Dahlan, Larasati & martiningsih, 2019).

Health training in applications in the health sector. Health training is commonly used to provide and improve community health. Operationally all activities in the training are used to increase the knowledge of those who participate. Knowledge or cognitive is an important domain in shaping one's actions and behavior. Knowledge will be more lasting than behavior that is not realized by knowledge according to (Notoatmodjo, 2018). This is in accordance with the theory that someone aged 15-17 years is in the stage of development of a teenager with characteristics According to researchers, basic life support training simulations can increase students' knowledge, because of the learning process, the use of learning methods that make students understand more about basic life support.

Motivation Partisipan

Participant Motivation Based on the results in the study, it was known that the level of motivation of the participants before and after the simulation of basic life support training was carried out, that is, before 8 (50.0%) participants had high motivation and 8 (50.0%) had low

motivation. Whereas after being given a training simulation there were 16 (100%) participants who had high motivation. This research is in line with previous research where there were 2 (6.1%) respondents who had moderate motivation and 31 (93.9%) had high motivation, which was carried out at SMA Negeri 9 Binsus Manado by (Mulyadi, & Katuuk, 2017).

Based on the results of the explanation above, it shows that the motivation of most students has good motivation. In this study, it was categorized from the abilities possessed by students in understanding and analyzing the science of basic life support (BHD), this is evidenced from the results of the level of knowledge of students about basic life support. categorized as good so it will affect students' high motivation in helping victims of cardiac arrest (emergency). This explanation is in line with previous research conducted by (Syaiful, Dahlan, Larasati, & Martiningsih, 2019) at SMAN 02 Kota Bima where in this study it was said that the level of student knowledge and motivation had a relationship, student motivation was categorized as high because they were involved in scouting organizations where one of their duties is to help others with a sincere responsibility

Providing simulations can also add to or open students' insights and knowledge so that it can motivate them to be able to carry out cardiopulmonary resuscitation in unexpected emergencies that require help as soon as possible (Khalilati, Firdaus, & Rukmana, 2020).

In theory explains why someone will not do what they think they cannot do, despite the work output very desirable. Because in his view, the level of a person's motivation is determined by three components, namely expectations for the success of the task, instrumentalist, namely the assessment of what will happen after the task is successfully completed, and valence, namely the result. Responses such as positive, neutral, or negative feelings (Vroom, 1964; Octavia, 2020).

Increased Participant Knowledge and Motivation

Based on the test results obtained P value = 0.001 for the knowledge variable and P value = 0.000 for the motivation variable, which means that there is a significant value between before being given a training simulation and after being given a training simulation. Based on this, it can also be interpreted that Ho is rejected and Ha is accepted, which means that there is an effectiveness of basic life support training simulations in increasing students' knowledge and motivation about handling traffic accident incidents.

Knowledge and motivation have a close relationship, which occurs because of the learning process The learning process can equip the younger generation with knowledge, so that the more a person learns or knows, the more motivated that person is to act according to what he has learned. High school students who are still classified as teenagers are also expected to be able to participate in basic life support training in their environment, because they have developmental characteristics in terms of body size, strength, psychology, and reproductive abilities, and are easy to motivate and learn quickly (Mulyadi, & Katuk, 2017)

CONCLUSION

The knowledge and motivation of Yadika Natar High School students in South Lampung were mostly lacking, before being given basic life support training simulations. The knowledge and motivation of Yadika Natar High School students in South Lampung is good, after conducting basic life support training simulations. There is a change in knowledge and motivation.

The process of effective basic life support training to achieve research objectives is influenced by several factors, namely the educational method and sometimes the information material in the activity. The educational method used in this research is lecture and demonstration. The lecture method is a way of obtaining information by explaining thoughts or information that is understood orally to individuals or groups participating in training activities. The demonstration method also plays a very important role in this study, because the method used is to demonstrate or show how the activity process takes place. The demonstration method is a very effective way of teaching, because it makes it easier for respondents to apply it directly, so it can increase student motivation (Abdillah, 2020).

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