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Cardiopulmonary Resuscitation Training Improves The Behavior Of Tourists In First Aid In Patients With Cardiac Arrest

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ABSTRACT

Cardiac arrest can happen to anyone, anywhere, and anytime. Tourism operators need to be responsive in order to increase tourist safety and reduce the incidence of cardiac arrest. Maximizing the behavior of tourism operators in handling these situations can be done by conducting cardiopulmonary resuscitation training. The purpose of this study was to determine how much cardiopulmonary resuscitation training improves tourism operator behavior in first aid in patients with cardiac arrest in the working area of Tanah Lot tourist attraction. The research method used Pre-experiment with the type of One-Group Pre test-Post test Design. The sampling technique used Non-Probability with Purposive Sampling technique with sample size is 57. Data collection using questionnaire sheets and observation sheets. The results showed that before the training, the respondents' behavior was in the poor category of 44.47% and after the training it increased to 77.75% in the moderate category. Based on the results of the Wilcoxon non- parametric test, p-value at sig. (2-tailed) is 0.001 ($p < 0.05$) on behavior along with its three domains, in knowledge, there was an average increase of 22.29%, attitude increased by 17.79%, action by 59.3%, and behavior increased by 33.01%. The results test prove that there is an increase in helping behavior by tourism operator after being given cardiopulmonary resuscitation training in the working area of Tanah Lot tourist attraction. It is expected that tourism operators work together with relevant health workers to create a continuous training program so that in the future they will be able to carry out fast and appropriate treatment to help cardiac arrest emergency cases.

Keywords: CPR, first aid, cardiac arrest.

Introduction

Cardiac arrest is a condition in which there is a sudden loss of heart function, which can occur in a person with or without a diagnosis of heart disease according to the American Heart Association (2021). When cardiac arrest occurs, cardiac activity spontaneously stops, causing the victim to lose response, stop normal breathing, and without obvious signs of circulation. It is important to remember that without prompt corrective action, this condition can be fatal, one of the appropriate and effective responses is through the immediate implementation of RJP actions. In addition, the use of defibrillation or cardioversion can also be an important step in returning heart activity to normal levels, as explained by (Kuller, 2023).

The World Tourism Organization states that about 21% to 26% of all deaths that occur to tourists each year are caused by cardiovascular diseases during their travels. Deaths caused by heart and blood vessel diseases, especially coronary heart disease and stroke, are expected to continue to increase and reach around 23.3 million deaths by 2030 (Ngirarung, et al. 2017).

According to Marco et al., (2020) CPR is a technique that is easy to learn and can be done by anyone, even ordinary people without medical training. RJP training can increase the confidence of ordinary people to act in emergency situations such as cardiac arrest. CPR training is recommended for those aged 15 years and above, because at that age they are more mature and able to perform strong emphasis on the chest area (Allan et al., 2023). Astudy by Suardana et al., (2017) who researched cardiopulmonary resuscitation training on the motivation to help cardiac arrest victims in tourism actors, stated that there was a relationship between CPR training and an increase in motivation to provide help p=0.000 (<0.05).

The results of a preliminary study conducted in the DTW Tanah Lot area, Tabanan Regency, through interviews regarding emergency training, data was obtained that tourism actors had never participated in and received training on BHD and first aid in cardiac arrest cases. The results of interviews from 10 representatives of tourist guides at DTW Tanah Lot obtained data that 70% said they wanted to help but did not know what to do.

Based on the above urian, researchers are interested in finding out how much cardiopulmonary resuscitation training improves the behavior of tourism actors in first aid in patients with cardiac arrest.

Research Method

This research is a type of pre-experimental research using a one-group pre-test post- test design, which was conducted on 57 tourism actors in the Tanah Lot Tourism Area, Bali. The sampling method used is purposive sampling with inclusion criteria, in the form of being willing to be a respondent, being in the Tanah Lot, having never participated in RJP training, being able to read and write, being ≥ 15 years old, not experiencing health problems, cognitive and physical impairments, being able to apply technology such as smartphones, and Able to answer questions via Google Form.

Behavioral data was collected using two questionnaires, namely a questionnaire on knowledge level and attitude, which was disseminated through a google form and filled out within 30 minutes, and an observation sheet in the form of a check list to measure the actions of tourism actors in first aid in cases of cardiac arrest. Data were analyzed by univariate and wilcoxon sign rank test.

Results and Discussions

1. Characteristics of Respondents Based on Age, Gender and Occupation

Table 1 Frequency Distribution of Respondent Characteristics in RJP Training at DTW Tanah Lot, Tabanan Regency in 2024

No.	Variable		Frequency (f)	Percentage (%)
1.	Age	26-35 Years	17	29,8
		36-45 Years	27	47,4
		46-55 Years	13	22,8
2.	KindSex	Man	44	77,2
		Woman	13	22,8
3.	Work	Merchant	22	38,6
		Tour Guide	1	1,8
		Security	6	10,5
		Private	28	49,1
4.	Education	High School/Equivalent	51	89,5
		College	6	10,5
5.	Trainings that have beenattended	Ever	0	0
		Never	57	100
		Sum	57	100,0

Based on table 1 above, most respondents are 36-45 years old with a percentage of 47.4%. Male with a percentage of 77.2% with most jobs being private employees with a percentage of 49.1%. The education level was mostly high school/equivalent with a percentage of 89.5%, and all respondents had never participated in training with a percentage of 100.0%.

2. Distribution of Frequency of Tourism Actors' Attitudes Before and After RJP Training

Table 2 Distribution of Frequency of Tourism Actors' Attitudes Before and After RJP Training at DTW Tanah Lot, Tabanan Regency in 2024

		Before being given RJP training		After being given RJP training	
		Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Knowledge	Good	-	-	37	64,9
	Enough	24	42,1	18	31,6
	Less	33	57,9	2	3,5

Attitude	Good	-	-	32	56,1
	Enough	42	73,7	25	43,9
	Less	15	26,3	0	0
Action	Good	-	-	35	61,4
	Enough	-	-	22	38,6
	Less	57	100	-	-
Behaviour	Good	-	-	26	45,6
	Enough	-	-	31	54,4
	Less	57	100	-	-
Sum		**57**	**100**	**57**	**100**

Based on the table above, it was found that before being given the training, the respondents had less knowledge as many as 33 people with a percentage of 57.9% then after being given the training, the knowledge of the respondents was mostly good as 37 (64.9%).). The change in the attitude of the respondents showed that it was enough by 73.7% and less than 26.3% then after being given training, the attitude of the respondents increased to sufficient by 43.9% and good by 56.1%. Respondentswho have not been given training in action skills are still in the category of lack of 100.0%, after the training, the respondents' action skills increased in the category of sufficient 38.6%,, and good 61.4%. Afternot being given training on the behavior of the respondents was still in the category of less by 100.0% then after being given training, the behavior of the respondents increased where the category was sufficient by 54.4% and good by 45.6%.

3. Data Analysis of RJP Training on Tourism Behavior in First Aid for Patients with Cardiac Arrest

Table 3 Results of Data Analysis of RJP Training on Tourism Behavior in First Aid for Patients with Cardiac Arrest at DTW Tanah Lot, Tabanan Regency in 2024

Variable	N	Mean	SD	Difference Mean	*Sig. (2-tailed)*
Knowledge					
Before	57	55,09	8,045	22,19	0,001
After		77,28	8,817		
Attitude					
Before	57	60,74	2,532	17,79	0,001
After		78,53	6,153		
Action					
Before	57	18,42	7,774	59,3	0,001
After		77,72	5,116		
Behaviour					

Before	57	44,74	4,316	33,01	0,001
After		77,75	4,517		

Based on the results of the analysis, using the wilcoxon sign rank test on the behavior of tourism actors and their three domains (knowledge, attitude, and action) the results were obtained. (2-tailed) p = 0.001 < 0.05. This shows that there is an increase in helping behavior by tourism actors after being given cardiopulmonary resuscitation training. There was an increase in knowledge value after being given training by 22.19%. In attitude, it increased by 17.79%. In actions there was an increase of 59.3%, and in behavior there was an increase of 33.01%.

The results of the research obtained are also supported by research conducted by Nirmalasari and Winarti (2020a), regarding the Influence of Training (BHD) on Knowledge which shows that the value of p=0.000 < 0.05. Similar findings were also found in a study conducted by Ghauri et al., (2019), which showed a value of p=0.01 < 0.05, confirming that training also had an impact on improving knowledge. The findings are also in line with research by Prasetyo (2019) who said that training has an influence on increasing knowledge.

Training is a short-term educational process that combines theoretical and practical learning, which can increase a person's knowledge (Larasati, 2018). Training has a significant impact on knowledge because it is supported by several factors, one of which is the use of simulation methods that allow participants to be guided directly by trainers who have official certifications. This finding is in line with the research of Sutono et al., (2015) which shows that training with direct feedback from coaches can provide corrections and instructions if the procedure is carried out inappropriately. Participants also have the opportunity to ask questions directly thereby improving their understanding in the training process.

Another factor that can increase the knowledge of trainees is through the provision of modules. This finding is reinforced by research conducted by Somantri (2015) which states that the module helps participants in understanding more deeply about basic life support. This module provides benefits to participants as it allows them to learn independently, and respondents can learn it outside of the training schedule.

In addition to training with simulation concepts, there are several other methods to increase knowledge, one of which is using videos. Training with videos has its own advantages, where participants can learn independently using videos anywhere and anytime. According to research conducted by Metrikayanto, et al. (2018), education through video is an innovation in basic life support training. This study explains that training through videos is effective in teaching the general public about basic life support. The results showed that there was no significant difference in knowledge improvement between the simulation method and the training method using video with a value of p=0.468 (p>0.05). These two training methods are able to increase the knowledge of respondents even though they use different approaches. However, training using video has a greater mean difference compared to the simulation method.

This research is also in line with research conducted by Mohtar (2021), which researched the effect of cardiopulmonary resuscitation training on the knowledge, attitude and actions of swimming pool guards with a value using the Wilcoxon Test showing a p value of 0.007 (p<0.05) which means that there is an effect of CPR training on the attitude of swimming pool officers. Another study conducted by Asri (2023) on the effect of cardiopulmonary resuscitation training

using video on adolescent first aid readiness attitudes in cardiac arrest patients, the results showed that the attitude variable was obtained p-value = 0.000 < 0.05. It was also found that all respondents had a positive attitude (100%) before and after receiving the intervention. So that there was an increase in respondents' attitudes after receiving training videos compared to before receiving training. According to Azwar (2011), a person's attitude can be influenced by personal experiences, knowledge, culture, media, people who are considered influential, education, and religion. A person's attitude can change if the individual accepts the influence and is willing to obey the influence because the attitude is in accordance with what he believes and in accordance with the value system he adheres to. RJP can be done by someone who is trained in the health field or ordinary people. Through RJP training, tourism actors are expected to be able to carry out RJP actions correctly (Susanto, 2009). Tourism actors are given RJP training on how to behave and act correctly when they find victims who are unconscious or have a cardiac arrest. This is very important to train and improve the ability of RJP in tourism actors because it will increase attitudes in handling cardiac arrest so that it can increase vigilance in dealing with emergency conditions, especially cardiac arrest.

This research is in line with the findings of Sansare and Jacob (2018; Rahmat, 2019), which highlighted the impact of basic life support training on knowledge and skills in employees with a value of p=0.000<0.005. Training is a form of learning that focuses on skill development. Training forms the foundation for a person to apply his skills. It is better that training be an ongoing process with the aim of updating and recalling the knowledge and skills possessed. According to Keenan et al., (2009), training needs to be repeated every 6-12 months to maintain skills in basic life support. According to a study conducted by Lee et al., (2016) entitled "The Effect of Basic Life Support Training Duration on Cardiopulmonary Resuscitation Skills", it was concluded that the length of training time has a significant impact on individual skills. This study divided participants into four groups based on the duration of the training. The results showed that there was a difference in skills between the training that lasted for 40 minutes and the training that lasted for 180 minutes (p<0.001). From the results of the study, it can be concluded that training with a short duration can improve skills related to Basic Life Support (BHD). However, training that lasts for a longer period of time will result in higher quality in Cardiopulmonary Resuscitation (CPR). The study also states that BHD training can increase confidence and willingness to provide help to people in need during cardiac arrest, regardless of the length of the training.

One of the significant factors in improving respondents' skills is the use of phantom as a prop. Based on research conducted by Andita (2018) on the influence of conscious health education with slide media and artificial models on changes in knowledge, it was found that the use of artificial tools (phantoms) can increase individual knowledge and skills. The use of props made respondents feel as if they were providing help to the victim in real life. In addition, by using props, more of the five senses are involved so that the absorption of information and skills becomes more effective. However, the role of the coach remains a dominant factor because the existence of phantom is only a tool in skill demonstrations.

Skills can be improved through training using different types of media. The more media used, the higher the quality of proficiency and knowledge retention. In a study conducted by Sutono (2015) entitled Differences in Chest Compression and

Ventilation Values in Cardiopulmonary Resuscitation Training for S1 Nursing Students with Instructor, Audiovisual, and Combination Feedback, it was found that the average depth of chest compression in the instructor method was 47.17, the audiovisual method was 48.15, and the combination method was 49.17. These findings indicate that from the average change in chest compression values from pretest to post-test, the combination method shows a better improvement compared to the other two methods. Therefore, training conducted with the help of instructors and supported by audiovisual media is more recommended to improve respondents' skills so as to achieve optimal results.

Based on the description above, the researcher concluded that there was an increase in behavior before and after cardiopulmonary resuscitation training given to tourists. The researchers concluded that the trainees showed significant changes in their behavior after participating in the training. Before the training, most tourists had knowledge, attitudes, and actions in the category of lack in providing first aid assistance in emergency situations such as cardiac arrest. After participating in the training, they showed an improvement in knowledge, attitude, and action in performing cardiopulmonary resuscitation. This indicates that the RJP training has succeeded in improving the behavior of tourism actors in dealing with emergencies such as cardiac arrest

Conclusion

The behavior of tourism actors before being given CPR training, obtained an average pre- test score of 44.74 in the poor category and after being given CPR training, obtained an average post-test score of 77.75 in the sufficient category. The test of the influence of RJP training on the behavior of tourism actors showed that there was an increase in helping behavior by tourism actors after being given RJP training with a p-value of 0.001 (p-value < 0.05). There was an increase in knowledge value after being given training by 22.19%. In attitude, it increased by 17.79%. In actions there was an increase of 59.3%, and in behavior there was an increase of 33.01%.

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