

## Correlation between Basic Life Support Knowledge Level and Motivation to Help Cardiac Arrest Victims

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### ABSTRACT

Basic Life Assistance (BHD) is very important to know by the general public, especially health students because emergency events can be found anywhere and anytime, so they can be a provision to help victims of cardiac arrest. Cardiac Arrest or cardiac arrest is one of the most dangerous and deadly diseases in the world. Cardiac arrest occurs when the heart's electrical system malfunctions. Basic life support measures carried out by people around the sufferer immediately after the incident can increase the patient's survival rate. The purpose of this study was to determine the relationship between the level of basic life support knowledge and the motivation to help victims of cardiac arrest. This study uses a correlational analytic approach with a cross sectional approach. The sample in this study was 101 respondents who were taken by total sampling technique. Data was collected using a questionnaire and analyzed by statistical inferential. The results showed that there was a significant relationship between knowledge of basic life support and motivation to help victims of cardiac arrest in respondents where the p-value was <0..

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### 1. INTRODUCTION

Basic Life Support (BHD) is an important determinant of survival in cardiac arrest victims (Association, 2015). So that's knowledge Basic Life Assistance (BHD) is very important to be known by the public as well as nursing students because emergency events can be found anywhere and anytime, so they can be a provision to help victims of cardiac arrest (Mongkau, 2018). To do the right help, knowledge and skills about BHD are needed.

Knowledge and skills about BHD increase self-confidence in providing assistance to victims of cardiac arrest and the willingness to help is very much based on motivation. Motivation is an impulse in humans to act or behave, high motivation will influence action to help cardiac arrest patients so that it can reduce the prevalence rate of cardiac arrest victims' deaths on the way to the hospital.

The majority of cardiac arrests outside the hospital occur at home. In America and Canada the incidence of cardiac arrest is around 350,000 people per year (Association, 2015). Meanwhile, based on reports from Centers for Disease Control and Prevention (CDC) conducted a survey of the incidence of cardiac arrest in the United States during the period 1 October 2005–31 December 2010. 31,689 cases of cardiac arrest that occurred outside the hospital. Of these events, 33.3% of cardiac arrest cases received CPR assistance from bystanders and only 3.7% received automated external defibrillator (AED) assistance before EMS personnel arrived. (Bryan, 2011).

There is no clear data for the prevalence of cardiac arrest sufferers in Indonesia each year, but in 2007 around 7.2% of Indonesia's population suffered from heart disease, which means that around 16 million people are at risk of experiencing cardiac arrest. (Bryan, 2011). The province of Bali, especially the city of Denpasar, also has no data on cardiac arrest, but it was found in 2013 that the

prevalence of coronary heart disease was 0.7% and heart failure was 0.1%, which is at risk of getting a heart attack and cardiac arrest.(Mongkau, 2018).

The success of helping victims of cardiac arrest is largely determined by health workers, including nursing students. Thus nursing students are required to have a certificate stating that students have completed Basic Life Support Training by Emergency Ambulance 118. Therefore it shows that BHD skills are important for every nursing student to know from knowledge about BHD to the ability to help people who are experiencing cardiac arrest. The higher a person's knowledge is expected to be, the higher his motivation to help victims of cardiac arrest.

Motivation is a human psychological characteristic that contributes to a person's level of commitment. This includes the factors that cause, channel, and maintain human behavior in a certain determined direction. This motivational process is determined by one's personality, attitude, experience and expectations. There are various kinds of motivation that affect a person, namely intrinsic motivation, namely motivation that arises from within each individual and extrinsic motivation, namely motives that are active and function due to stimuli from outside.(Sadirman, 2016).

According to Rahmawati(2015)entitled "An Overview of Knowledge of Basic Life Support (BHD) in Nursing Study Program Students at Negri University of Gorontalo" states that most of the eighth semester nursing students have less knowledge about Basic Life Support (BHD), namely 48.8% or 33 respondents, while 47 .6% or 39 respondents have sufficient knowledge, and for good knowledge only 12.2% or 10 respondents.

While research conducted by Thooyibah(2014)on "The Effect of Basic Life Support Training in Adolescents on the Motivation Level of Helping Cardiac Arrest Victims", shows that in the treatment group, the moderate motivation level increased from 47.4% to 52.6%, while the high motivation level decreased from 52.6% to 47.4% after research. In the control group the highest level of motivation before the training was moderate (52.6%), while after the training the highest level of motivation was high (57.9%).

Based on the background above, there are still many victims of cardiac arrest who are not treated immediately besides that there is still a lack of knowledge of health students about Basic Life Assistance (BHD). ITEKES Bali Anesthesiology Nursing Study Program D IV students have attended Basic Life Support (BHD) training and experience in emergency practice it is hoped that with good knowledge also have high motivation in helping victims of cardiac arrest, but so far no one has researched the relationship of knowledge Basic Life Assistance (BHD) with the motivation to help victims of cardiac arrest in these students. Therefore researchers are interested in researching "the relationship between the level of knowledge of Basic Life Support (BHD) and the motivation to help victims of cardiac arrest in anesthesia students".

## 2. METHODS

The data collection method used in this study was to use a test instrument, namely a questionnaire. The sample in this study were 101 respondents, which were taken using total sampling. The data that has been collected then undergoes a cleaning process to ensure completeness and accuracy. Then proceed with the input process into the computer with a coding system. Presentation and analysis is done by computer using the SPSS program. Data collected then analyzed with Spearman's Rho test. This research was approved by the Bali ITEKES Research Ethics Commission (Number 04.0506/KEPITEKES-BALI/VIII/2022).

## 3. RESULTS AND DISCUSSION

**Table 1. General characteristics of respondents (n=101)**

General Characteristics	Parameter	Frequency	Percentage
Age	18 years	1	1,0
	19 years old	17	16,8
	20 years	57	56,4
	21 years	24	23,8

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Gender	23 years	2	2.0
	Man	29	28,7
	Woman	72	71.3
Class	A	51	50.5
	B	50	49.5

Based on the data in table 1, it can be seen that the gender of female respondents is more dominant than male respondents, namely 72 respondents (71.3%), the age of the most respondents is at the age of 20 years, namely 57 respondents (56.4%) and class A respondents, namely 51 respondents (50.5%).

**Table 2. Knowledge level of basic life support among respondents (n=101)**

Knowledge level	Frequency	Percentage
Well	53	52,5
Enough	22	21,8
Not enough	26	25,7

Based on table 2 above, it shows that the level of knowledge of the respondents is mostly in the good category, namely 53 respondents (52.5%), while accompanied by a category of less knowledge of 26 respondents (25.7%) and the category of sufficient knowledge of 22 respondents (21, 8%). This is because the respondent has received basic life support training before starting clinical practice at the hospital. This finding is in accordance with Notoatmojo's theory(2012)which states that knowledge is the result of "knowing" and this occurs after people perceive a particular object. Sensing of objects occurs through the five human senses namely sight, hearing, smell, taste and touch separately. There are several factors that influence knowledge, namely education, training, experience and age. The results of this study are in line with the research conducted by Nirmalasari & Winarti(2020)mentioned that one of the factors that can increase knowledge is because participants are guided directly by trainers who already have provider certificates.

**Table 3. Respondents' motivation to help victims of cardiac arrest (n=101)**

Motivation	Frequency	Percentage
Tall	70	69,3
Currently	12	11,9
Low	19	18,8

Based on table 3 above, the motivation to help victims of cardiac arrest in respondents was as many as 70 respondents (69.3%) had high motivation, while as many as 19 respondents (18.8%) had less motivation and 12 respondents (11.9%) had motivation currently helping victims of cardiac arrest. Thooyibah(2014)stated that it could be influenced by several factors. Humans are very complex and are drawn from various kinds of needs that affect the motivation that is created. This motivation is created as an effort to meet their needs. Motivation can be positive or negative. Certain factors can make a person more motivated or even less motivated to take action.

According to Thooyibah(2014)in a research journal on the effect of BHD training on adolescents on the level of motivation to help victims of cardiac arrest, shows that every age group will have a good level of motivation in helping victims of cardiac arrest, because naturally everyone as a social being will have the desire to provide help to others. other. In addition, motivation is abstract in nature and is influenced by various interrelated factors that can affect research results.

**Table 4. Relationship between Basic Life Support Knowledge Level and Motivation to Help Cardiac Arrest Victims (n=101)**

Knowledge Category	Motivation Category			Total (%)	pValues	rs
	Tall (%)	Currently (%)	Low (%)			
Well	45.5	6,9	0.0	69,3	< 0.001	0.392

Enough	11,9	5.0	5.0	11,9
Not enough	11,9	0.0	13,9	18,8
<b>Total</b>				100.0

Based on table 4, the results show that knowledge about basic life support is good with high motivation (45.5%) of respondents. Based on calculations using Spearman's Rho, the p-Value is <math><0.001</math>, this means that the p-Value is <math><a (0.05)</math>, so  $H_0$  is rejected and  $H_a$  is accepted. This means that there is a significant relationship between knowledge of basic life support and the motivation to help victims of cardiac arrest in the respondents. To find out how strong the relationship is, it can be seen in the correlation coefficient which shows the result, which is 0.392, so the level of closeness is strong enough in the direction of a positive correlation.

The results obtained from the Spearman's Rho test show that there is a correlation between knowledge about basic life support and motivation to help victims of cardiac arrest. According to Thoyyibah(2014)in a research journal on the effect of BHD training in adolescents on the level of motivation to help victims of cardiac arrest, knowledge and level of motivation have a close relationship, which occurs because of the learning process. The learning process can provide knowledge for adolescents so that the more someone learns something, the person will be more motivated to behave in accordance with what he learns.

Based on the description above, the level of knowledge of Basic Life Support (BHD) is good, the motivation to help victims of cardiac arrest is also high, so that the community needs to be equipped with knowledge with training, counseling, or other methods to increase knowledge about Basic Life Support (BHD) so that they are motivated to help victims of cardiac arrest. also increased.

#### 4. CONCLUIONS

The results showed that the knowledge level of most of the respondents was in the good category 53 (52.5%), and the majority of respondents had high motivation in helping victims of cardiac arrest 70 (69.3%). Based on the correlation test using Spearman's Rho, it shows that there is a correlation between knowledge about basic life support and motivation to help victims of cardiac arrest.

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