Nurse's Level of Knowledge about Cardiac Arrest Treatment

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Abstract - One of the most common emergency situations in the community is cardiac arrest. Basic life support must be initiated immediately to maintain survival. Cardiopulmonary resuscitation (CPR) skills are first aid for the treatment of cardiac arrest and can prevent the risk of death and brain disability. Knowledge of cardiac arrest is the main thing that must be mastered by nurses before carrying out basic treatment on patients. The purpose of this study was to determine the level of knowledge of nurses possess about the management of cardiac arrest at Munyang Kute Redelong Hospital. This research is descriptive research using a cross-sectional design. The population in this study was 82, and the sample in this study was 82 respondents. The sampling technique used in this study was purposive sampling. The results obtained from this study showed that the majority of nurses have sufficient knowledge, as many as 54 people (65.9%), and nurses who have a low level of knowledge, as many as 28 people (34.1%). Based on the results of the study, the level of knowledge of nurses about the management of cardiac arrest was as high as 65.9%. This research is expected to be a benchmark for hospitals to provide BTCLS or BHD training so that nurses' knowledge about the management of cardiac arrest continues to be upgraded. Suggestions for nurses to continue to update their knowledge and develop practical skills to contribute to the management of cardiac arrest.

Keywords: Knowledge, Nurse, Cardiac Arrest

I. Introduction

Emergency services are medical measures that are needed by emergency patients in time to save lives and prevent disability. Emergency care is a measure in which immediate medical action is needed to save lives and prevent disabilities (Peraturan Menteri Kesehatan Republik Indonesia Nomor 47 Tahun 2018 Tentang Pelayanan Kegawatdaruratan, 2018). An emergency is a sudden occurrence that can be caused by a natural event, a technological disaster, a dispute, or an event caused by man and requires urgent handling. Emergencies can happen to anyone, anywhere, and anytime (Muthmainnah, 2019).

According to data from the World Health Organization (WHO) in 2018, there are 17.7 million deaths from emergency disorders worldwide. According to the Kementerian Kesehatan RI, (2018) it is mentioned that sickness is the number one cause of death in Indonesia with 883,447 people dying from breathing and heart failure. In Indonesia, 37% of deaths are due to cardiovascular diseases, mainly cardiac arrest. A number of other causes may occur due to lifestyle, public knowledge of risk factors, population spread, and health care location (Buston et al., 2020).

Heart arrest is one of the most common emergency conditions in society. First response or first aid for cardiac arrest can prevent a variety of risks, such as death and brain impairment. According to Law No. 38 of 2014 on Nursing, a nurse is a person who has passed a higher education in nursing, either within the country or abroad, that is recognized by the government in accordance with the provisions of the regulations of the law. Nurses are one of the leading health care professionals who work professionally with the ability, authority, and responsibility to carry out nursing care (Wardah et al., 2017).

Emergency response is very important for the nurse to know one of them so that the level of patient safety increases. It becomes a focus on the knowledge of how nursing action should be enhanced. One of the most common cases occurring inside and outside the hospital is sudden cardiac arrest (SCA). Patients with anxiety are at high risk for the threat of death and disability, so patients need a quick response from nurses (Hidayati, 2020).

Cardiopulmonary resuscitation (CPR) is the key in the treatment of cardiac arrest. Laksono et al., (2017) argued that the execution of cardiac arrest of cardiopulmonary resuscitation does not guarantee the continuing capability of each nurse. Cardiopulmonary resuscitation administered manually by nurses tends to be less qualified. It is also obvious that the velocity of breast compression by nurses in Indonesia is not uniform (Sudiro, 2020). In addition, as explained also in the Widyarani, (2018), which reports that the role of nurses in Indonesia can still not be said to be implemented properly because there are still many delays in the delivery of cardiopulmonary resuscitation to patients. Similar to the study conducted by Andriyani et al., (2019), which showed that there were 63.3% of nurses who had poor knowledge and poor performance when performing cardiac arrest treatments.

II. Method

This study is a descriptive-analytical study. The reason for using descriptive-analytical methods is to take the problem or focus on the problems as they were when the research was carried out, and then process and analyze the results of the research to draw conclusions. This study aims to determine the level of knowledge of nurses possess about handling cardiac arrest. The population in this study was all nurses on duty in the critical care room of Munyang Kute Redelong Regional General Hospital, totaling 82 nurses. Sampling using the purposive sampling technique involved 82 nurses.

III. Result and Discussion

3.1. Univariate Analysis

3.1.1 Demographic Characteristics of Respondents

Table 1. Demographic Frequency Distribution.

No	Demographic Data	Frequency (F)	Percentage (%)
1	Gender		
	Woman	37	45,1
	Man	45	54,9
	Total	82	100
2	Age		
	17-25 (Late adolescence)	11	13,4
	26-35 (Early adulthood)	53	64,6
	36-45 (Late adulthood)	18	22
	Total	82	100
3	Final Education		
	Diploma	56	68,3
	Profession Ners	26	31,7
	Total	82	100
4	Length of work		
	<1 years	14	17,1
	1-5 years	34	41,5
	>5 yeras	34	41,5
	Total	82	100

Based on Table 1 above, the majority of respondents are male, as many as 37 people (45.1%), and respondents with the age of 26–35 more than others, namely as many as 54 people (65.9%), the level of DIII education as many as 56 people (68.3%), and the length of work has the same number of 1–5 years as many as 34 people (41.5%) and respondents with a long level of work more than 5 years as many as 34 people (41.5%).

3.1.2 Knowledge

Table 2. Results Frequency distribution of nurse knowledge levels

No.	Nurse Knowledge Levels	Frequency (F)	Percentage (%)
1	Enough	54	65,9
2	Less	28	34,1
Total		82	100

Based on the table above, it was found that of the 82 respondents who had sufficient knowledge about cardiac arrest, as many as 54 people (87.65%) had less knowledge about cardiac arrest, compared to as many as 28 people (34.1%).

3.2 Discussion

According to the findings of this study, nurses' understanding of cardiac arrest at Munyang Kute Redelong Hospital is adequate on average. Data gained revealed that nurses with significant understanding of cardiac arrest knew as many as 54 people (65.9%), while 28 people (34.1%) had less knowledge. Based on democratic data, the majority of nurses at Munyang Kute Redelong Hospital are 56 nursing diploma graduates (68.3%) and 26 nurses (31.7%). The data explains that nurses with higher levels of diploma education. One of the factors that influences the lack of knowledge among nurses is education. The results of the study explained that nurses who had sufficient knowledge included as many as 54 people (65.9%), because the majority of nurses at Munyang Kute Redelong Hospital had higher diploma education levels. According to research conducted by Turangan et al., (2017), knowledge and experience are closely related to the treatment of cardiac arrest.

According to research conducted by Harianja, (2020), there is a relationship between the level of knowledge of nurses and the basic handling of cardiac arrest patients, but there is no relationship between participation in cardiopulmonary resuscitation (CPR) training and the basic handling of cardiac arrest patients. According to research conducted by Pamungkas, (2022), there is a very strong relationship between knowledge about cardiopulmonary resuscitation and nurses' self-efficacy in handling cardiac arrest patients.

In order for nurses to perform cardiopulmonary resuscitation (CPR) procedures in a careful way, they must have knowledge and expertise in carrying them out. Basic life support knowledge and skills nurses need to have in the ministry in order to help people with cardiac arrest and respiratory arrest to minimize mortality rates. Death from cardiac arrest can actually be prevented through first aid, which is the key to ensuring that a person can continue his life. Knowledge and practice of cardiopulmonary resuscitation (CPR) techniques can increase the chances of survival for patients until further help is received.

According to research conducted by Ginting (2018), the knowledge and behavior of nurses are closely related when handling cardiac arrest patients. According to research conducted by Andrayani (2019), it is explained that the experience of nurses as members of the resuscitation team in handling cardiac arrest through the chain of survival has not been optimal. Challenges faced by nurses where they feel helplessness because they are unable to work on the expected improvement of the condition. The problems faced by nurses stem from a lack of competence and difficulty working with inadequate infrastructure. Likewise, service standards are not yet clear, as are the implementation of actions and difficulties in taking action with crowded patients, so in the future it is expected that institutions will be more proactive in providing support in solving these problems.

Knowledge of cardiopulmonary resuscitation (CPR) is the main thing that must be mastered before carrying out the basic treatment of cardiac arrest patients. Other factors that can affect the success of cardiopulmonary resuscitation (CPR) include the availability of tools, the skills of nurses in victim rescue, and the fact that experienced nurses have received training. The ability to perform cardiopulmonary resuscitation (CPR) is not just obtained, so to have the competence to perform quality cardiopulmonary resuscitation (CPR), one must go through training and upgrade their knowledge about handling cardiopulmonary resuscitation (CPR).

IV. Conclusion

Based on the results of the study, it can be concluded that the majority of nurses' knowledge about cardiac arrest at Munyang Kute Redelong Hospital is sufficient for as many as 54 people (65.9%). This is due to their education and experience in carrying out the basic treatment of cardiac arrest patients. Other factors that can affect the success of cardiopulmonary resuscitation (CPR) include the availability of tools, nurse skills in victim rescue, experienced nurses, and training.

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