



## Nurses Perceptions About CPR for Patients in the Emergency Room at Santa Elisabeth Hospital Medan 2023

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### ARTICLE INFO

#### Article History:

Received Oct 5, 2023  
Revised Oct 12, 2023  
Accepted Oct 24, 2023

#### Keywords:

Cardiopulmonary Resuscitation;  
Perception.

### ABSTRACT

Background: Perception is a person's picture of an object, person and events. Each person's perception is different from one person and another. Cardiopulmonary resuscitation (CPR) is an emergency measure, in an attempt to return the state of cardiac arrest (which is known as clinical death) to a normal state, in order to prevent death. Methods: This study uses a qualitative method where data collection is carried out by interviewing 3 questions so as to be able to dig deeper into nurses' perceptions of CPR. The sampling technique used purposive sampling are 5 participants. The data analysis technique used is thematic analysis. Results: CPR is a basic life support measure for the process of stimulating, activating, and restoring circulatory and respiratory function in patients with respiratory and cardiac arrest. CPR is a quick assessment of the patient's awareness and 30:2 chest massage for 5 cycles in cardiac arrest patients who have stopped breathing. Expected. Conclusion: The research conducted by researchers on nurse perceptions about CPR is good but needs to be improved by conducting training to increase nurses' knowledge of nurses' perceptions of CPR in the Emergency Room (IGD) at Santa Elisabeth Hospital Medan in 2023.

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## 1. INTRODUCTION

Since Cardiopulmonary Resuscitation was introduced to the world, until now there have been many changes in accordance with developments in health science. This is because there are many incidents where patients who experience respiratory arrest or what is often known as respiratory failure have been saved, but their performance has decreased and they even depend on other people (H. Sartono, C., 2021).

The survival of a patient who experiences a cardiac arrest can be achieved through first aid, namely Cardiopulmonary Resuscitation (CPR) or Cardiopulmonary Resuscitation (CPR) (in Nuraeni, A., Mirwanti, R, & Anna A, 2018). Cardiopulmonary Resuscitation (CPR) is a procedure that combines chest compressions and assisted breathing as an emergency method used to maintain oxygen flow and tissue perfusion, this can restore and maintain the function of vital organs in patients with heart failure (Dzulhijjah et al., 2021).

Cardiac arrest is one of the main causes of loss of life in the United States, which is estimated at 180,000 to 450,000 lives per year and 80% occurs due to coronary heart disease with the success rate

still being classified as very minimal. A survey of centers for disease control and prevention (CDC) in the United States found 31,689 cases of cardiac arrest over 5 years (2005-2010) and 33.3% received CPR assistance from bystanders and 3.7% used automated external defibrillators or AEDs (Ngurah & Putra, 2019).

Data from the World Health Organization (WHO) in (Irma Sianturi 2019) said that 17.5 million people in the world died from cardiovascular disease or 31% of the 56.5 million deaths worldwide. More than 3/4 of deaths due to cardiovascular disease are found in developing countries with lower middle income. Of all deaths due to cardiovascular disease, 7.4 million (42.3%) were caused by coronary heart disease (CHD) and 6.7 million were caused by stroke (Sianturi, 2019).

The highest prevalence of cardiovascular disease in Indonesia is coronary heart disease. The prevalence of coronary heart disease according to a doctor's diagnosis in Indonesia is 0.5% and based on a doctor's diagnosis or symptoms is 1.5%. East Nusa Tenggara Province (4.4%) has the highest prevalence and South Sulawesi (2.9%) is in third place for coronary heart disease sufferers (Riskseddas, 2013). Data from the World Health Organization (WHO) in 2012 in the Indonesian Ministry of Health (2017) said that 17.5 million people in the world died due to cardiovascular disease or 31% of the 56.5 million deaths worldwide. More than 3/4 of deaths from cardiovascular disease occur in developing countries with low to moderate income (Sudarman & Akbar, 2020).

From the results of the initial survey at the Santa Elisabeth Hospital in Medan, researchers conducted interviews with several nurses in the emergency room, saying that emergency actions in first aid treatment really require the nurse's ability to maintain circulation, respiration and level of consciousness with the aim that the patient can The function of the body's organs remains intact. Researchers also saw that nurses' understanding and knowledge was still lacking in recalling the meaning and purpose of carrying out CPR actions. Therefore, researchers with this research want to Know how the nurses perception about CPR for Patients in the Emergency Room at Santa Elisabeth Hospital, Medan.

## 2. RESEARCH METHODS

The research method carried out in this thesis is a descriptive writing design. The descriptive research design is intended to study a phenomenon based on empirical facts in the field. The aim of the research was to determine nurses' perceptions about CPR for patients in the emergency department at Santa Elisabeth Hospital in Medan in 2023. This research was conducted at Santa Elisabeth Hospital in Medan in 2023 by taking 5 participants as nurses who worked in the emergency room. The sampling technique was carried out using a purposive sampling method. The purposive sampling method means that the selected samples are oriented towards the research objectives. Individuals are selected or chosen deliberately because they have experience that is in accordance with the phenomenon being researched so far by pre-determining the inclusion criteria that have been determined.

This research design is the final result of a decision stage made by the researcher regarding how a relationship can be implemented. The type of research used in this research is a qualitative design with the title "Nurses' Perceptions About CPR for Patients in the Emergency Room at Santa Elisabeth Hospital, Medan, 2023". In this study, researchers determined inclusion criteria

The inclusion criteria in this study are as follows:

Emergency Room Nurse at Santa Elisabeth Hospital, Medan

Nurses with work experience of 4 years or more

Nurses who have taken BTCLS training

## 3. RESULTS AND DISCUSSION

Interview result: a) CPR is basic first aid life support for patients experiencing respiratory arrest and cardiac arrest, From the results of research conducted on 5 participants, the participants tried to explain nurses' perceptions about RJP. There are 5 people, namely P1, P2, P3, P4 and P5. Yang said that the perception of CPR "is basic first aid life support for patients experiencing respiratory arrest and cardiac arrest".

Explanatory quotes from participants are as follows: P1 L: 22-26 "Experiencing respiratory arrest and cardiac arrest.", P2 L: 78-80 "Patients who are declared to have stopped breathing and have cardiac arrest.", P3 L:149-150 "A person who stops breathing stops breathing.", P4 L:207-209 "Efforts to restore circulatory function or restore heart function.", P5 L:271-273 "Efforts to restore circulatory function or restore heart function to the client.", CPR is a basic life support action for the process of stimulating, activating and restoring circulatory and respiratory function in patients with respiratory arrest and cardiac arrest. b) From the results of research conducted on 5 participants, the participants tried to explain nurses' perceptions about RJP. There are P1, P2, P4 and P5 which try to explain "CPR is a basic life support action for the process of stimulating, activating and restoring circulatory and respiratory function in patients with respiratory arrest and cardiac arrest"

The results of the interview are as below: P1 L: 29-33 "Restores circulatory and respiratory function, a life-saving technique that is useful in emergencies.", P2 L:82-87 "Restore normal body function, reactivate, re-stimulate", P3 L:153-157 "First aid, basic life support, respiratory arrest, cardiac arrest.", P4 L:212-216 "First aid measures for those who have stopped breathing, restore the ability to breathe in patients who are experiencing cardiac arrest.", P5 L:275-278 "Restoring the ability to breathe in patients who have experienced cardiac arrest restores all movement processes in the body.". c) CPR is a rapid assessment of patient consciousness and 5 cycles of 30:2 chest massage in patients with cardiac arrest and respiratory arrest. From the research results, as many as 5 participants stated that the implementation of RJP actions could be carried out by carrying out 5 cycles of 30:2 chest massage.

Following are the results of the interview: P1 L:37-44 "Perform 30:2 assistance then provide oxygen assistance with an ambu bag of approximately 15 liters per minute.", P2 L:91-115 "30 massages 2 times artificial respiration", P3 L:161-165 "Action with a heart pump for 30 times per minute with 2 assisted breaths.", P4 L:220-225 "Check the patient's consciousness, 30 to 2 times.", P5 L:281-292 "Check consciousness, 30 versus 2 times giving artificial respiration for 5 cycles."

The characteristics of the five participants who agreed to be interviewed are as follows: Participant 1 (P1) is a woman aged 26 years, a nurse in the emergency room at Santa Elisabeth Hospital Medan who has worked for approximately 4 years and has attended BTCLS training, Participant 2 (P2) is a man aged 28 years, a nurse in the emergency room at Santa Elisabeth Hospital, Medan, who has worked for 7 years and has attended BTCLS training. Participant 3 (P3) is a man aged 28 years, a nurse in the emergency room at Santa Elisabeth Hospital, Medan, who has worked for less than more than 4 years and has attended BTCLS training, Participant 4 (P4) is a woman aged 27 years, a nurse in the emergency room at Santa Elisabeth Hospital, Medan, has worked for 4 years and has attended BTCLS training, Participant 5 (P5) is a 30 year old woman, a nurse in the emergency room at Santa Elisabeth Hospital, Medan, who has worked for 5 years and has attended BTCLS training.

### **Discussion**

CPR is basic first aid life support for patients experiencing respiratory arrest and cardiac arrest. Nurses' perception about CPR is basic first aid life support for patients who are diagnosed with respiratory arrest and cardiac arrest.

From the participants' answers, the researchers assumed that the nurses' perception of CPR was a basic first aid measure for life support for someone experiencing respiratory or cardiac arrest. From the results of the answers, there is the opinion of researchers (Simangunsong & Herawati, 2021) who say that CPR is an emergency action taken to restore breathing and cardiac arrest and prevent someone's death. Until now, CPR is one of the important steps in providing first aid for cardiac arrest as well as respiratory and cardiac arrest due to trauma. Quick and appropriate rescue measures for patients experiencing cardiac arrest can greatly increase their chances of survival.

CPR is a basic life support action for the process of stimulating, activating, and restoring circulatory and respiratory function in patients with respiratory arrest and cardiac arrest. CPR is basic first aid life support for patients experiencing respiratory arrest and cardiac arrest, if the goal itself is to provide life saving. Life support for patients who have respiratory or cardiac arrest.

Researchers assume that the meaning of CPR is basic life support first aid to save a person's life from death due to respiratory arrest and cardiac arrest, while the aim of CPR is to restore the function of human body organs to normal.

This is supported by the opinion of (Cristy et al., 2022) Cardiopulmonary Resuscitation (CPR) is a first aid procedure to restore the function of breathing and circulation in patients who experience cardiac arrest. This event requires CPR measures which are useful to save the patient's life in an emergency situation. Cardiac arrest is an emergency condition that can be life-threatening if not done quickly, this response requires immediate treatment. Cardiopulmonary Resuscitation (CPR) is an intervention that is an important determinant in the survival of respiratory arrest victims (Ngirarung et al., 2017).

CPR is a rapid assessment of patient consciousness and carrying out 5 cycles of 30:2 chest massage on patients with cardiac arrest and respiratory arrest. The SOP for actions taken during CPR in the emergency room is yes... if we see a patient coming from the emergency room, we see that the heart has stopped breathing, we take him to the triage section, we help with CPR, give action with a heart pump 30 times per minute with 2 assisted breaths. From the participants' answers, the researcher assumes that basic first aid measures can be carried out by checking the patient's condition to see whether the patient is experiencing an emergency or not, if yes, then the carotid pulse and chest movement will be checked, if not, continue by providing chest compression assistance. 30 to 2 artificial breaths for approximately 5 cycles. This is supported by several studies that have been carried out regarding CPR or Cardiopulmonary Resuscitation as written in the journal according to (Raffa et al., 2021). Action in the Emergency Department does not use queues but uses a triage system, namely carrying out primary and secondary assessments in a focused, systematic and accurate manner. Breathing (B: breathing), circulation (C: circulation), disability (D: inability), exposure (E: application). Based on the American Health Association (AHA, 2015), CPR is carried out in a C-A-B sequence where circulation management is the main focus. Cardiopulmonary resuscitation will provide the best results if carried out within the first 5 minutes when the patient is known to have lost consciousness using an automated external defibrillator (AED). High-quality CPR measures are an integral part of the chain of survival and are an important cornerstone in the first treatment of cardiac arrest before defibrillation and advanced life support. If these actions are carried out correctly and precisely, they will increase patient survival (Aty & Blasius, 2021).

The results of CPR are not only influenced by efforts during resuscitation but also the conditions before CPR is given. Causes of death after resuscitation include central nervous system damage in one third of cases, myocardial damage, and sepsis and other complications. Cardiopulmonary resuscitation in patients experiencing cardiac and pulmonary emergencies is a critical action that must be carried out by a competent nurse. Nurses must be able to make the right decisions at critical and emergency times. This ability requires mastery of unique nursing knowledge and skills in critical and disability situations (Tuti Sulastri, Epi Rustiawati, 2020).

Emergency patient care services in the emergency department are very important. One part of emergency services is the knowledge and ability of nurses to carry out cardiopulmonary resuscitation for cardiac arrest patients. Cardiac arrest is an event where the heart's work process suddenly stops so that the function of the heart to pump blood no longer functions throughout the body. If cardiac arrest lasts more than 4 minutes, it will result in sudden death (Rakhmawati, 2020).

The cause of death in emergency patients is that 50% die on the way to the hospital and in trauma patients 35% die within 1-2 hours after the trauma, which can be caused by, severe head trauma (subdural or extradural hematoma), thoracic trauma (thoracic hematoma or liver laceration), femur or pelvic fracture with massive bleeding, 15% die after a few days or weeks due to brain death, organ or multiple organ failure), 50% die at the time of the incident or a few minutes after the incident (Karmila Br Kaban, 2018).

A study on the ability of nurses to carry out BHD procedures carried out at the Karanganyar District Hospital showed that nurses' knowledge was in the sufficient category, namely 23 (76.6%), and the results of nurses' skills were in the quite skilled category, namely 22 (73.4%). This shows that the

results of the knowledge value are higher than the results of abilities because abilities must be assessed by direct practice (Novi, 2018).

Data from the World Health Organization (WHO) in 2012 in the Indonesian Ministry of Health (2017) shows that 17.5 million people in the world died from cardiovascular disease or 31% of the 56.5 million deaths worldwide. More than 3/4 of deaths from cardiovascular disease occur in developing countries with low to moderate income (Sudarman & Akbar, 2020).

The resuscitation registry reported that 566 children aged 0 to 18 years experienced cardiac arrest, with 241 surviving to reach the hospital and 438 neonates experiencing cardiac arrest, with 187 surviving until discharge from the hospital. The incidence of cardiac arrest in Indonesia in 2015 was around 10 out of 100,000 normal people aged under 35 years and annually reached around 300,000-350,000 incidents. Deaths due to cardiac arrest in Aceh province are around 36.5% of the total deaths due to emergencies (Millizia et al., 2020).

Data obtained from the Labuang Bajing Hospital, Makassar, in the last 10 months from March to December 2012, the number of patients reached 876 people and 30 people died, this proves that the death rate is still high, and how important basic life support measures must be had by all nurse (Pasaribu, 2021).

Perceptual characteristics are universal or experienced by all, selective for everyone subjective or personal. Perception can be interpreted as a person's picture of reality, perception is related to past experience, self-concept, socio-economics, genetics and educational background (Nursalam, 2020).

Cardio-pulmonary resuscitation (CPR) is an emergency action, as an effort to return the state of respiratory arrest or cardiac arrest (known as clinical death) to a normal state, in order to prevent death. Cardiac arrest is a condition where blood circulation stops because the heart stops pumping blood effectively (Muttaqin, 2009).

Cardiac arrest is a condition where the heart's work suddenly stops so that the heart's function of pumping blood throughout the body does not function, this results in the oxygen supply to the body's organs being unable to be fulfilled. If this condition lasts more than 4 minutes, it will result in death of the body's organs in less than 10 minutes. Cardiopulmonary resuscitation is a medical effort carried out for those in emergency situations to prevent death. Resuscitation is also any form of effort to restore the function of the respiratory system, blood circulation and nerves which have stopped so that their function can stop at any time, so that they can return to normal as before (Rakhmawati, 2020).

#### **4. CONCLUSION**

With a sample size of 5 participants regarding, Nurses' Perceptions about CPR for Patients in the Emergency Room at Santa Elisabeth Hospital, Medan in 2023, it can be concluded that: a) CPR is basic first aid life support for patients experiencing respiratory arrest and cardiac arrest, b) CPR is a basic life support action to process, stimulate, activate and restore circulatory and respiratory function in patients with respiratory arrest and cardiac arrest, c) CPR is a rapid assessment of patient consciousness and 5 cycles of 30:2 chest massage in patients with cardiac arrest and respiratory arrest.

For Santa Elisabeth Hospital Medan, based on the results of research conducted by researchers, nurses' perceptions about CPR are good but need to be improved by conducting training to increase nurses' knowledge regarding nurses' perceptions about CPR in the Emergency Room (IGD) at Santa Elisabeth Hospital Medan in 2023.

For Participants, it is hoped that the results of this research will be used as information to increase nurses' knowledge about helping emergency patients in the emergency room, especially Santa Elisabeth Hospital, Medan.

For Further Researchers, it is hoped that the results of this research can be used as basic data and developed for subsequent research related to basic first aid life support measures. And increase the number of references to obtain the objectives of the research to be studied

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