

**52 - KNOWLEDGE OF A GROUP OF STUDENTS OF NURSING ON LIFE SUPPORT CARDIOPULMONAR**

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**INTRODUCTION**

Diseases of the circulatory system is configured as the most frequent cause of death in Brazil, covering 29% of all deaths. It is estimated that roughly 50% of these cases are associated with sudden death from ventricular fibrillation as a complication of acute myocardial infarction (RIBEIRO, et. al 2013).

According to data obtained from DATASUL in the year 2011 335.213 deaths from cardiovascular diseases and the mortality rate for the same cause in that year was 174.2 deaths per 100,000 population were recorded (BRASIL, 2014).

Cardiac arrest, commonly called PCR, is considered the most serious cardiac emergency, characterized by the absence of cardiac mechanical activity, which is confirmed by the absence of pulse, apnea or gasping and also for lack of responsiveness of the victim. (OLIVEIRA et al., 2013) Until recently, PCR was regarded as synonymous with death, since no more than 2% of victims survived to this condition. Today, however, the survival rate reaches over 70%, if help is early and effective (MENEZES; ROCHA; 2014).

Regarding the causes of Cardiopulmonary Resuscitation, they include ventricular tachycardia or ventricular fibrillation (very rapid heart rate), bradycardia or atrioventricular block (very slow heart rate) and still there when there is cardiac activity (asystole). Can also occur in the presence of electrical activity, but with cardiac contraction or ineffective circulating volume, being called pulseless electrical activity (PEA) (SILVA, 2011).

The Cardiopulmonary resuscitation, commonly called PCR, consists of a series of behaviors performed by both health professionals and by trained laypersons in order to recover victims of cardiopulmonary arrest (CPA). These behaviors include chest compressions to stimulate the heart rate and ventilation to provide the oxygen needed for the functioning of the organs and tissues of the body and thus restore the normal function of these organs and tissues.

Although in recent years, advances have occurred regarding the prevention and treatment of PCR, it still remains a problem of public health worldwide and many lives are lost every year in Brazil. It is estimated that each year about 200,000 cases of PCR occur in Brazil and that half of these cases occur in the hospital, while the other half takes place in public places such as malls, stadiums and airports (BRAZILIAN SOCIETY OF CARDIOLOGY, 2013).

Also according to the above author, the conduct of cardiopulmonary resuscitation immediate recognition of CRP way, even if only chest compressions, contributes significantly to an increase in survival rates for victims of cardiac arrest. The success of resuscitation is closely linked to early defibrillation, ie, within 3-5 minutes after collapse. 7-10% chances of survival are lost each minute it ceases to perform CPR.

Another important point to mention is that not all the areas with high concentrations of people, have an AED (Automated External Defibrillator), which can be used by anyone and, since the machine itself is the leading procedures to be performed. Grounded for these reasons, the following question arises: which knowledge of a group of nursing students about CPR?

The issue in question was chosen with the desire to assess the knowledge of these scholars about CPR, considering the importance of this procedure for the recovery of life of individuals victims of PCR, and contribute to the training of these and other future students who will have access to this research.

**METHOD**

Descriptive study with quantitative approach, performed in the Integrated Colleges of Nursing Ducks department, located in the municipality of Patos - PB.

The study participants consisted of 144 nursing students enrolled in 10 undergraduate and periods of freely agreed to participate in the study by signing the Free Consentimento and Esclarecido.O study was approved by the Ethics Committee in Research of FIP in the opinion 31140614.2.0000.5181.

For data collection, an instrument consisting of a structured interview script, divided into two parts, where the first covers the demographic data of respondents and the second contains six objective questions pertaining to the object of the study was used.

**RESULTS AND DISCUSSION**

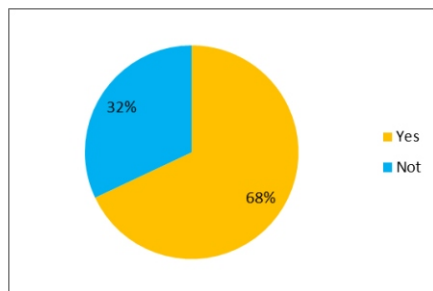
This survey is a sample of participants both male and female. However, we noticed a considerable amount of female participants, with 83% (120) of the total, a reality which is already observed in the academic area where, according to a survey of 92 134 enrolled in the nursing program, 84.7% are women (OJEDA, et al, 2008).

On the age group, the sample showed a prevalence of so-called young adults, ie those aged between 20 and 30 years, with 71% (103); This is due to the opportunities that the market offers in this area, beyond the fact that many of them already have the technical nursing and seek superior to expand their knowledge and grow in the profession.

Regarding the period which respondents are currently enrolled, the study was done randomly, seeking cover 10 periods graduation. The first period comprised 12% (17) of the sample; the second, 11% (16); third period, 15% (21); fourth period, 17% (25); fifth period, 08% (12); sixth period, 19% (27); seventh period, 01% (02); ninth period, 03% (04) and tenth period, with 14% (20) of the participants.

Finally, the sample was further characterized as having other technical or upper course and the results showed that 56% did not have, while 44% already have another degree. Despite the negative results have been outstanding to slightly positive, the 44% who answered yes, are included in those individuals who constantly seek to qualify to meet the demands of a labor market that is increasingly competitive (DONATI; ALVES, CAMELO, 2010).

Graph 1 - Distribution of sample according to the question: Do you know the of RCP techniques?



With respect to knowledge of the techniques of CPR, 68% (98) of respondents answered positively and 32% (46) said they did not know what. This result is favorable to the success of the service, since only the presence of a lay rescuer who has proper training, can triple the chances of survival for a victim of PCR (BOAVENTURA, 2010).

The success of care to the victim PCR depends directly on the resuscitation maneuvers, as well as the rapidity with which they are initiated and staff who will act in attendance and the training of the utmost importance for such personal service (GRANZOTTO et al, 2008).

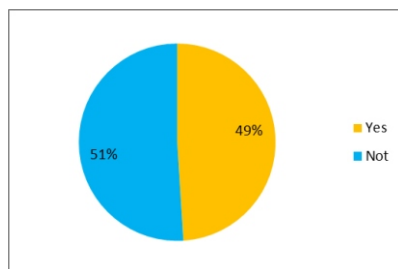
Also in agreement with the author above, resuscitation maneuvers done correctly can be reverted once deemed life threatening situations, whether in the pre-hospital or hospital setting.

Silva, Montezeli, Gastaldi (2013) treat the nurse as vital in cases of Cardiopulmonary Resuscitation, especially regarding decision-making, as is usually the nurse who first assesses the patient and initiates CPR maneuvers.

Also asked to the participants if they would know to recognize an individual in PCR where 68% (98) of the respondents answered yes, or if they found one individual with suspected PCR, would know recognize it, while 32% (46) responded negatively. This result is due to the fact that a good portion of the participants already have the technical nursing course or have attended the courses in this area, as will be discussed later.

However, studies with nursing students and nurses contradict the above information, since what was done with students showed that 50% delessabem recognize a cardiac arrest while in the applied study with nurses, it was observed that only 18% of the sample responded correctly on the initial assessment of the individual with probable PCR (GOMES; BRAZ, 2012; ARAUJO et al, 2008).

Graph 2 - Distribution of sample according to the question: Do you know the chain of survival for adult or child in PCR?



In relation to current knowledge of survival, the result proved quite balanced, with 51% (74) of positive responses, compared to 49% (70) of negative responses.

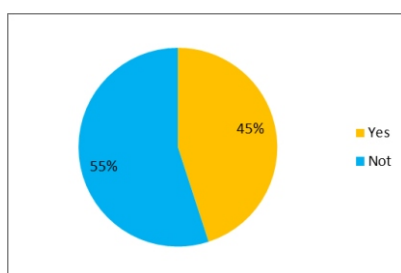
The chain of survival for both the adult and the child is of paramount importance for satisfactory service in cases of PCR. It consists of steps that must be followed in sequence for the victim of Cardiopulmonary Resuscitation receive all necessary and timely care, because in such cases, time is crucial in the success of the service.

In the case of adults, the chain of survival is to: recognize the PCR; trigger the BLS (Basic Life Support); initiate CPR maneuvers; use the AED (Automated External Defibrillator); lead the victim to the hospital quickly. In children, it is added to prevent PCR and instead of activating the service as a first step should begin maneuvers, since, by being a child, only one hand is used in compression, then being free for another, while starting CPR, the emergency is triggered.

A survey of 70 nurses at a teaching hospital showed that only 30% of respondents knew the correct order of the chain and that 23% said that resuscitation procedures should be initiated even before starting the emergency department, a fact that is considered wrong by the AHA protocol. (SILVA; MONTEZELI; GASTALDI, 2013)

The correct and timely application of the chain of survival is critical because it increases the rate of survival of the victim, since after the first minute of ventricular fibrillation, the survival rate drops from 7% to 10% for each minute of delay in care (VANHEUSDEN et al, 2007).

Graph 3 - Distribution of sample according to the question: Have you attended any course aimed to assist victims of PCR?



Here are presented the results of the study regarding whether the respondents have attended a course geared to serving victims of cardiac arrest, where 45% (64) reported positive, compared to 55% (79) of negative responses.

When it comes to urgent and emergency situations such as fractures, large amount of blood, injuries due to firearms or bladed weapon, common in this area mean that many students and health professionals are afraid to act on it.

A survey of nurses working in primary care showed that 29.4% of participants had already done a course on APH (Pre-Hospital Care) or Emergency Department. This same survey also revealed that 87.5% of respondents reported having received information about the PCR during their training. Yet another study, this time done with nursing students revealed that 100% of respondents reported ever having attended the course in Basic Life Support (BLS) or Basic Life Support (BLS) and 45% reported never having had any training first aid (AMADOR et al, 2012; BOAVENTURA et al, 2010).

Yet on this issue, a survey conducted with nurses and nursing technicians work in research, the results showed that 86.9% professionals already done the course Basic Life Support (BLS) (BOAVENTURA; COUTINHO, 2006).

These data reinforce the importance of training both professionals as lay about care in emergency rooms, since many victims are no longer met or are inadequately catered for lack of knowledge of the individuals who will perform the service people.

However, it is noticed that the majority of respondents, representing 94% (135) of the total said to have interest in the area, compared to 6% (09) responded negatively.

This significant majority of positive responses may be associated with both the real interest of the participants for the area, as well as a distorted view of academics, since the survey was conducted randomly, ie, with students of 10 periods graduation, as well as independent already have or not another degree or technical course. These factors influence the results, since the presence of inexperienced students within the nursing profession, it is understood that they, despite knowing that the care in urgent and emergency situations dealing with serious and imminent risk of death has no real dimension of performance in emergency room.

A study of nurses working in the emergency department of a hospital revealed that 65.2% of them said they worked in the ER by personal choice. Also according to this study, among those surveyed, few of them expressed a desire to leave the Emergency claiming personal attachment and feel that the time to make a decision already passed (Furtado, JR, 2010).

These data show that although many professionals and students have fear of acting in urgency, because of the many unpleasant situations which are subject, a good portion still has interest in acting in the care of critically ill patients.

### CONCLUSIONS

Regarding the results of the study, it was found that even being done with academics, there was a considerable majority of participants were female, showing that although more men are opting for the nursing program, it is still predominantly a profession female.

On the results of the study pertaining to the object, they made the research objective was achieved, since through them we found that nursing students, regardless of the period they are studying, have a significant knowledge of Cardiopulmonary Resuscitation, and also on the procedures to be followed for a good service to victims of PCR, especially for Cardiopulmonary Resuscitation maneuvers.

Therefore, it was concluded that knowledge about cardiac arrest and CPR should not be limited to trained professionals such conduct, but to lay people, since the success of care to victims of CRP is directly linked to the speed and efficiency of cardiopulmonary resuscitation pipelines.

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## KNOWLEDGE OF A GROUP OF STUDENTS OF NURSING ON LIFE SUPPORT CARDIOPULMONAR

### ABSTRACT

Cardiac arrest, commonly called PCR, is considered the most serious cardiac emergency, characterized as the absence of cardiac mechanical activity, which is confirmed by the absence of pulse, apnea or gasping and also for lack of responsiveness of the victim. Although in recent years, advances have occurred regarding the prevention and treatment of PCR, it still remains a problem of public health worldwide and many lives are lost every year in Brazil. Grounded for these reasons, the following question arises: which knowledge of a group of nursing students about PCR?. This is a descriptive study with quantitative approach, performed in the Department of Integrated Colleges of Nursing Ducks, the research sample was constituted by 144 nursing students, the study was approved by the Ethics Committee in Research of FIP in the opinion 31140614.2 .0000.5181 to collect data from a screenplay structured interview was used. As a result 83% of respondents were female, 71% were aged between 20 and 30 years, 56% do not have other technical or college degree, 68% said they were aware of the techniques of PCR, 68% responded to recognize an individual in PCR, as the chain of survival 51% reported knowing, 55% never attended a course aimed at serving victims of PCR and 94% reported having interest in the area. It was found that the research objective was achieved because, through research it was found that nursing students have significant knowledge about Cardiopulmonary Resuscitation and also on the procedures to be followed for proper care of victims PCR, with emphasis on the maneuvers of Cardiopulmonary Resuscitation.

**KEYWORDS:** knowledge; nursing; cardiopulmonary resuscitation.

## LA CONNAISSANCE D'UNE GROUPE D'ÉTUDIANTS EN SCIENCES INFIRMIÈRES SUR LA RÉANIMATION CARDIO-PULMONAIRE

### RÉSUMÉ

L'arrêt cardiaque, communément appelée PCR, est considéré urgence cardiaque la plus grave, caractérisée par l'absence d'activité mécanique cardiaque, ce qui est confirmé par l'absence d'impulsion, l'apnée ou haletant et aussi pour le manque de réactivité de la victime. Bien que ces dernières années, des progrès ont eu lieu en ce qui concerne la prévention et le traitement de la PCR, il reste un problème de santé publique dans le monde entier et de nombreuses vies sont perdues chaque année au Brésil. Mise à la terre pour ces raisons, la question suivante se pose: où la connaissance d'un groupe d'étudiants en soins infirmiers face à la RCR?. Ceci est une étude descriptive à l'approche quantitative, réalisée dans le département des collèges intégrée des Ducks de soins infirmiers, l'échantillon de recherche a été constituée par 144 étudiants en soins infirmiers, l'étude a été approuvée par le Comité d'éthique en recherche de FIP dans l'opinion 31140614,2 .0000.5181 de collecter des données à partir d'un scénario entrevue structurée a été utilisé. En conséquence 83% des répondants étaient des femmes, 71% étaient âgés entre 20 et 30 ans, 56% ne pas avoir d'autres diplôme technique ou collège, 68% ont dit qu'ils étaient au courant des techniques de RCR, 68% ont répondu à reconnaître un individu en PCR, comme la chaîne de survie de 51% ont déclaré savoir, 55% jamais assisté à un cours visant à desservir les victimes de la PCR et 94% ont déclaré avoir un intérêt dans la région. Il a été constaté que l'objectif de la recherche a été réalisée parce que, grâce à la recherche, il a été constaté que les étudiants en soins infirmiers ont beaucoup de connaissances sur la réanimation cardiorespiratoire ainsi que sur les procédures à suivre pour les soins appropriés des victimes PCR, en mettant l'accent sur les manœuvres de réanimation cardio-respiratoire.

**MOTS-CLÉS:** connaissance; soins infirmiers; réanimation cardio-respiratoire.

## CONOCIMIENTO DE UN GRUPO DE ESTUDIANTES DE ENFERMERÍA EN RESUCITACIÓN CARDIOPULMONAR

### RESUMEN

El paro cardíaco, comúnmente llamada PCR, se considera la situación de emergencia cardíaca más grave, que se caracteriza como la ausencia de actividad mecánica cardíaca, lo que se confirma por la ausencia de pulso, la apnea o jadeo y también por falta de capacidad de respuesta de la víctima. Aunque en los últimos años, se han producido avances en cuanto a la prevención y tratamiento de la PCR, que todavía sigue siendo un problema de salud pública en todo el mundo y muchas vidas se pierden cada año en Brasil. Grounded por estas razones, se plantea la siguiente pregunta: que el conocimiento de un grupo de estudiantes de enfermería acerca de la RCP?. Se trata de un estudio descriptivo con abordaje cuantitativo, realizado en el Departamento de Colegios Integrado de Patos de Enfermería, la muestra de la investigación fue constituída por 144 estudiantes de enfermería, el estudio fue aprobado por el Comité de Ética en Investigación de la FIP en la opinión 31.140.614,2 .0000.5181 para recoger datos de un guión se utilizó la entrevista estructurada. Como resultado de ello el 83% de los encuestados eran mujeres, el 71% tenían entre 20 y 30 años, el 56% no tiene otra carrera técnica o universitaria, el 68% dijo que estaban al tanto de las técnicas de RCP, el 68% respondió a reconocer a un individuo en la PCR, como la cadena de supervivencia del 51% reportó saber, el 55% nunca asistió a un curso destinado a servir a las víctimas de la PCR y el 94% reportó tener interés en la zona. Se encontró que el objetivo de la investigación se logró debido a que, a través de la investigación se encontró que los estudiantes de enfermería tienen un conocimiento significativo sobre Resucitación Cardiopulmonar y también sobre los procedimientos a seguir para la atención adecuada de las víctimas PCR, con énfasis en las maniobras de reanimación cardiopulmonar.

**PALABRAS CLAVE:** conocimiento; enfermería; reanimación cardiopulmonar.

## CONHECIMENTO DE UM GRUPO DE ACADÊMICOS DE ENFERMAGEM SOBRE REANIMAÇÃO CARDIOPULMONAR

### RESUMO

A Parada Cardiorrespiratória, comumente chamada de PCR, é tida como a emergência cardiológica mais grave, sendo caracterizada como a ausência de atividade mecânica cardíaca, a qual é confirmada pela ausência de pulso, apneia ou respiração agônica e também por falta de responsividade da vítima. Apesar de nos últimos anos, terem ocorrido avanços no que



diz respeito a prevenção e tratamento da PCR, a mesma ainda permanece como um problema de saúde pública de nível mundial e muitas vidas são perdidas todos os anos no Brasil. Embasada por essas razões, surge o seguinte questionamento: qual o conhecimento de um grupo de acadêmicos de enfermagem sobre RCP?. Trata-se de um estudo descritivo com abordagem quantitativa, realizado no departamento de Enfermagem das Faculdades Integradas de Patos, a amostra da pesquisa foi constituída por 144 acadêmicos de enfermagem, o trabalho foi aprovado pelo Comitê de Ética em Pesquisa das FIP sob o parecer 31140614.2.0000.5181, para a coleta dos dados foi utilizado um roteiro de entrevista estruturado. Como resultado 83% dos entrevistados eram do sexo feminino, 71% tinham idade entre 20 e 30 anos, 56% não possuem outro curso técnico ou superior, 68% afirmaram ter conhecimento das técnicas de RCP, 68% responderam reconhecer um indivíduo em PCR, quanto a corrente de sobrevivência 51% afirmaram conhecer, 55% nunca participaram de um curso voltado ao atendimento de vítimas de PCR e 94% afirmaram ter interesse pela área. Constatou-se que o objetivo da pesquisa foi alcançado, visto que, através da pesquisa foi possível constatar que os acadêmicos de enfermagem tem um conhecimento significativo sobre Parada Cardiorrespiratória, bem como também, sobre as condutas a serem seguidas para um bom atendimento as vítimas de PCR, com destaque para as manobras de Reanimação Cardiopulmonar.

**PALAVRAS-CHAVE:** conhecimento; enfermagem; reanimação cardiopulmonar.