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ORIGINAL ARTICLE

THE UNDERSTANDING OF NURSING GRADUATING STUDENTS ABOUT THEIR ROLE IN CARDIORESPIRATORY ARREST ASSISTANCE

ENTENDIMENTO DE GRADUANDOS EM ENFERMAGEM ACERCA DO SEU PAPEL NA ASSISTÊNCIA A PARADA CARDIORRESPIRATÓRIA

LA COMPRENSIÓN DE ENFERMERÍA ESTUDIANTES GRADUADOS SOBRE SU PAPEL EN ASISTENCIA PARADA CARDIORRESPIRATORIA

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ABSTRACT

Objective: to evaluate the understanding of graduating students in the last year of their nursing course about cardiorespiratory arrest. ***Method:*** cross-sectional, exploratory and descriptive study with a quantitative approach, conducted through a questionnaire. The data were analyzed using descriptive statistical analysis, displayed in SPSS software version 19.0 and later, presented in a chart and a figure; then an analysis and discussion with literature were conducted. ***Results:*** the students did not see themselves as team members in the assistance of cardiorespiratory arrest. ***Conclusion:*** the difficulty that students demonstrate as soon-to-be nurses is insecurity coupled with disabilities in technical and scientific knowledge, which directly reflects the practical assistance provided by the nurse, who needs to understand that if you stay away from the care, the quality of life of patients will be compromised. ***Descriptors*:** Cardiorespiratory Arrest; Resuscitation; Graduating Students; Knowledge.

RESUMO

Objetivo: avaliar o entendimento de graduandos em enfermagem, do último ano, sobre parada cardiorrespiratória. ***Método:*** estudo transversal, exploratório, descritivo, de abordagem quantitativa, realizado por meio de questionário. Os dados foram analisados mediante análise estatística descritiva, dispostos no *software* SPSS versão 19.0 e apresentados em figura e tabela; em seguida, foi feita a análise e discussão com a literatura. ***Resultados:*** os graduandos não se viram como integrantes da equipe, na assistência à parada cardiorrespiratória. ***Conclusão:*** a dificuldade que os graduandos demonstram como futuros enfermeiros é a insegurança somada à deficiência no conhecimento tecnocientífico, o qual repercute diretamente na prática assistencial prestada pelo enfermeiro, ante a necessidade de entender que, se ficar distante do atendimento, a qualidade de vida do paciente estará comprometida. ***Descritores:*** Parada Cardiorrespiratória; Graduandos; Conhecimento.

RESUMEN

Objetivo: evaluar el entendimiento de estudiantes de graduación en enfermería del último año sobre parada cardio-respiratoria. ***Método:*** estudio transversal, exploratorio, descriptivo, de abordaje cuantitativo, realizado por medio de cuestionario. Los datos fueron analizados por el análisis estadístico descriptivo, dispuestos en el software SPSS versión 19.0 y, después, presentados en una tabla y una figura; en seguida, fue hecho el análisis y discusión con la literatura. ***Resultados:*** los alumnos no se vieron como integrantes del equipo en la asistencia a la parada cardio-respiratoria. ***Conclusión:*** la dificultad que los alumnos demuestran como futuros enfermeros es la inseguridad sumada a la deficiencia en el conocimiento técnico-científico, el cual refleja directamente en la práctica asistencial prestada por el enfermero, que precisa entender que si queda distante del atendimiento, la calidad de vida del paciente estará comprometida. ***Descriptores:*** Parada Cardio-Respiratoria; Estudiantes de Graduación; Conocimiento.

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INTRODUCTION

Nurses, who are members of a health team, should have technical and scientific knowledge, which enables them to provide adequate assistance in cardiorespiratory arrest (CRA) situations, which are relatively common and sudden emergencies.[1]

It should be highlighted that the nurses are in charge of the planning, organization, coordination, execution and the evaluation of the nursing services provided on a CRA occasion. According to law n° 7.498, of June 25th 1986, article 11, the nurses should provide direct nursing care to severe patients under life-risking situations, as well as major technical complexity care which demand from him/her adequate scientific knowledge and the ability to make immediate decisions.[2]

In order to provide an effective CRA assistance, it is important for the professional to have confidence, updated technical and scientific knowledge, agility and leadership, which will affect the life quality of post-cardiorespiratory arrest patients.[3,4]

The *American Heart Association* (AHA) is an organization which provides protocols for the assistance in basic and advanced life support. Such protocols are updated every five years, aiming to develop and speed up an assistance which is adequately provided and free from malpractices.[5] In this sense, the students attributed the difficulty in learning to provide assistance in CRA situations to the lack of abilities to apply the protocols concerning assistance to CRA and leadership, emotional instability and the shortage of material resources.[6] It is important to note that the university should provide the means which will allow the students a satisfactory and efficient learning, affecting the qualification of more confident and capable generalist nurses. Due to the unpredictability of CRA and relevance of the adequate performance for the survival of the post-CRA patient, this study aims to:

- To evaluate the understanding of graduating students in the last year of their nursing course about cardiorespiratory arrest .

METHOD

Cross-sectional, exploratory and descriptive study with a quantitative approach. The research was conducted in the year of 2015 with graduating nursing students from a university of Vale do Paraíba Paulista/SP.

The people interviewed were composed of 48 graduating students, covering the entire number of students in the class. For the carrying out of data collection, the researchers, initially, got in contact with the institution, in order to schedule the allowed period of time for the application of the data collection instrument, focusing on the nurses' performance at CRA situations.

The instrument was composed of a questionnaire which contained social and demographic questions, as well as questions related to the degree of knowledge regarding the graduating student on the team, heart rates and compression/ventilation relationship in CRA, among others.

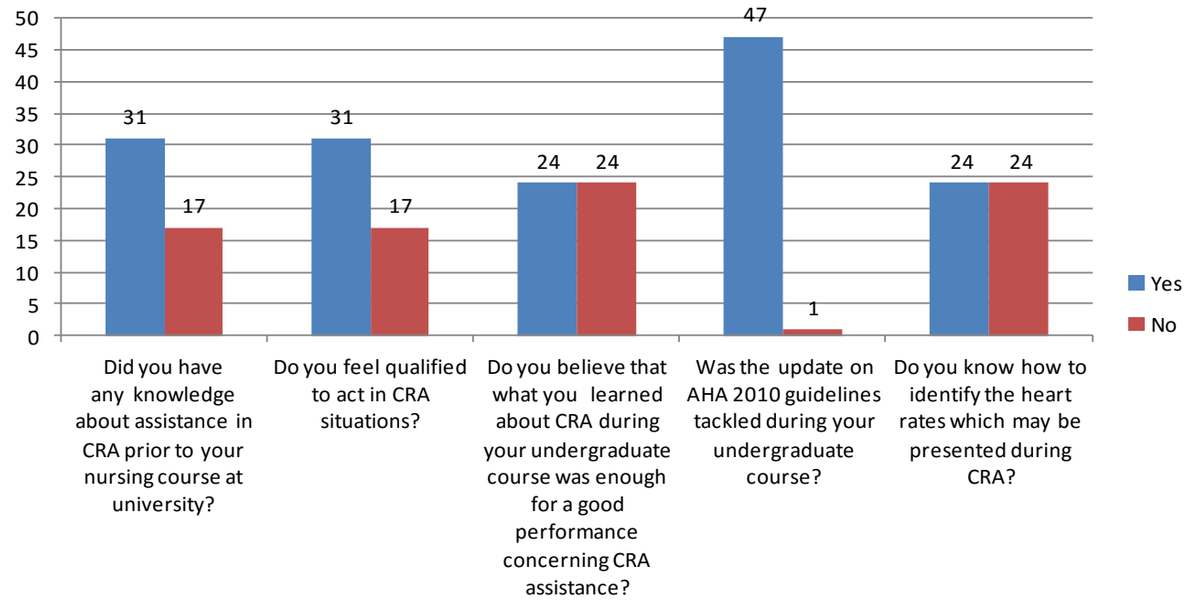
The data were analyzed by the descriptive statistical analysis displayed in the SPSS software version 19.0 and presented in a figure and chart.

The research followed the determinations established by the Resolution nº 196/96 of

Conselho Nacional de Saúde (CNS), which standardizes the researches involving human beings. It was approved by the CEP of CCS/ UFPE, CAAE nº 0085.0.126.000-08, under the protocol n° 559.206.

RESULTS

The graduating students were, in their majority, composed of women at an average age of 26,90 years (DP= 7,76), and half of them were female health workers. A hundred percent of the interviewed thought the approach and focus on the theme of CRA to be important throughout the graduation course; the majority (64,6%) referred to having knowledge regarding the CRA prior to graduation and that they felt well prepared to act upon such situations. Half of the participants have referred that the knowledge acquired throughout graduation was enough for a good assistance. The majority (97,9%) has affirmed that the update of the AHA 2010 guidelines was approached during the classes. The analysis of the graduating student's knowledge during CRA situations is represented in Figure 1:



When questioned regarding the knowledge degree in relation to the team, cardiac rates and compression/ventilation relationship in CRA, the majority was unable to respond the questions properly, since the minimum response in relation to the team in order to assist in CRA would be related to other health professionals, but do not see the nurse as a crucial professional in the assistance to the CRA situation.

The graduating students were also not able to identify cardiac rates that can be present in CRA situations.

Regarding the compression/ventilation relationship, the students' response was satisfactory, since the majority was able to respond accordingly concerning this relationship, in agreement with the new guidelines established by AHA, 2010.

The results regarding the specific knowledge are presented in the Table 1.

Table 1. Distribution as to the minimum team needed for assistance, heart rate and compression/ventilation relationship (N=48). Taubaté-SP, 2014.

Questions	n	%
What is the minimum team needed for assistance in Cardiorespiratory Arrest (CRA) situations?		
1 doctor; 1 physiotherapist; 2 technicians in nursing	30	62,5
1 doctor; 1 nurse; 2 technicians in nursing	9	18,8
1 doctor; 1 physiotherapist; 1 nurse; 1 technician in nursing	7	14,6
1 doctor; 1 physiotherapist; 1 nurse	2	4,2
What are the heart rates that can be present in a CRA situation?		
Asystole and Fibrillation	11	22,9
Shockable and non-shockable	3	6,3
Fibrillation / Tachycardia	4	8,2
Bradycardia / Tachycardia	2	4,2
Asystole, Ventricular Fibrillation, Ventricular Tachycardia	2	4,2
Ventricular fibrillation/Bradycardia	1	2,1
PEA*, PVT**, Ventricular Fibrillation, Asystole	1	2,1
What is the compression: ventilation recommended by the AHA 2010 in adults?		
30:2	40	83,3
15:2	1	2,1
100:1	2	4,2
100:2	5	10,4

Note: PEA*: Pulseless electrical activity; PVT**: Pulseless Ventricular Tachycardia, AHA***: American Heart Association

DISCUSSION

The results of this study have shown that half of the graduating students did not perceive themselves as part of the team in the assistance of CRA situations. In spite of this, they showed that the teachers from the higher education institutions gave theoretical and practical classes regarding CRA assistance, according to the 2010 AHA Guidelines; they displayed that the graduating students considered having seen this topic to be of great importance in the undergraduate course; they stated to feel prepared to act in their future practice; they judged the obtained knowledge as sufficient, and claimed that they already had the required knowledge prior to graduation.

The considerable number of health professionals already working in the area, and

more than a half of the graduating students already having some specific knowledge in CRA assistance, contradict the answers related to the specific knowledge and to the confidence and safety mentioned by the graduating students. In a conducted research it was possible to notice that the graduating students have difficulties to associate theory with practice.[7]

The nurse is the member of the health team who first faces the patient/client in CRA situation [8,9], having, therefore, to be prepared to concentrate efforts and act upon that which precede the CRA event, and consequently, in its untimely identification, in its assistance, and in its post-resuscitation care.[10] However, that is not always true, since there are institutions which do not offer proper qualification to professionals.[11,12]

The graduating students claimed to feel capable and judged their learning process during their undergraduate course as satisfactory. However, this fact has not enabled them to correctly respond the questioning regarding technical and scientific knowledge, such as the possible cardiac rates in CRA situations.

The insecurity added to the lack of perception of the academic as the key member of the professional team, in the CRA assistance, directly reflects in the assisting practice and survival of the patient, since the nurse is the most present professional who provides help when needed .[3,6]

The professional-to-be neither sees himself/herself as part of the team nor as part of the fast and precise decision-making, although he/she is regarded indispensable to the assistance which aims at the guarantee of the post-CRA survival and at the organization of the assisting team.[13,14] This reinforces the need for rethinking the nurse's academic qualification, especially in emergency situations.[15] There is a difficulty in the understanding of the graduating nursing student regarding his/her role as a future nurse in the assistance of CRA situations.[11]

It is worth investigating at which moment the nursing teaching is failing, considering that the students in the last year of the undegraduate course, do not have a clear perception of their leadership yet that could provide safety for the nursing team. Besides being trained by the nurse, through worldwide accepted and known protocols, this team should feel confident to provide adequate assistance in CRA situations.

CONCLUSION

The present research aims to question the academia's position, which recognizes the value of the graduating nursing student's participation within the multi-professional team, or the interest of observing this graduating student as a mere technician and passive agent of practical situations, what makes him a mere professional disconnected from the situations. How long will it take for nursing and academia to finally understand that the nursing professional should regard this knowledge as his/her own and associate it to his/her practice so that, he/she can *de facto* understand his/her role in the team.

REFERENCES

1. Bellan MC, Araújo II, Araújo S. Capacitação teórica do Enfermeiro para o atendimento da parada cardiorrespiratória. Rev Bras Enferm [Internet]. 2010 Nov/Dec [cited 2016 Apr 19];63(6):1019-27. Available from: http://www.scielo.br/pdf/reben/v63n6/23.pdf

2. Conselho Regional de Enfermagem São Paulo [Internet]. Atendimento ao paciente em parada cardiorrespiratória (PCR). N° 030/201 atualizado em 11/11/2011 [cited 2016 Apr 19]. Available from: http://novo.portalcofen.gov.br/conselho-regional-de-enfermagem-de-so-paulo_4434.html

3. Woollard M, Whitfield R, Newcombe RG, Colquhoun M, Vetter N, Chamberlain D. Optimal refresher training intervals for AED and CPR skills: a randomised controlled trial. Resuscitation [Internet]. 2006 [cited 2016 Apr 19];71(2):237-47 Available from: http://www.resuscitationjournal.com/article/S0300-9572(06)00178-X/pdf

4. Alves CA, Barbosa CNS, Faria HTG. Parada cardiorrespiratória e Enfermagem: O conhecimento acerca do Suporte Básico de Vida. Cogitare Enferm [Internet]. 2013 Apr/June [cited 2016 Apr 19];18(2):296-301. Available from: http://ojs.c3sl.ufpr.br/ojs/index.php/cogitare/article/viewFile/32579/20693

5. American Heart Association 2010. Destaques das Diretrizes da American Heart Association 2010 para RCP e ACE [Internet]. 2010 [cited 2016 Apr 19]. Available from: http://sampa2.pmrp.com.br/ssaude/program

6. Menezes RR, Rocha LKA. Dificuldades apresentadas pelas alunas de graduação frente a uma PCR. InterScientia [Internet]. 2013 Sept/Dec [cited 2016 Apr 19];1(3):2-15. Available from:

file:///C:/Users/user/Downloads/209-384-1-PB%20(1).pdf

7. Gomes APJ, Bráz RM, Conhecimento de acadêmicos de Enfermagem frente à parada cardiorrespiratória,Caderno Unifoa [Internet]. 2012 Apr [cited 2016 Apr 19];18:85-91. Available from: http://web.unifoa.edu.br/cadernos/edicao/18/85.pdf

8. Zanini J, Nascimento ERP, Barra DCC. Parada e Reanimação Cardiorrespiratória: Conhecimentos da Equipe de Enfermagem em Unidade de Terapia Intensiva. Revista Brasileira de Terapia Intensiva [Internet]. 2006 Apr/June [cited 2016 Apr 19];18(2):143-7. Available from: http://www.scielo.br/pdf/rbti/v18n2/a07v18n2.pdf

9. Pazin-Filho A, Santos JC, Castro RBP, Bueno CD, Schimidt A. Parada cardiorrespiratória. Medicina [Internet]. 2003 [cited 2016 Apr 19];36(2):163-78. Available from: http://revista.fmrp.usp.br/2003/36n2e4/3_parada_cardiorrespiratoria.pdf

10. Silva AG. Parada Cardiorrespiratória em unidades de internação: vivências do enfermeiro. Dissertação de Mestrado. Ribeirão Preto (SP): Escola de Enfermagem de Ribeirão Preto da Universidade de São Paulo [Internet]. 2006 [cited 2016 Apr 19]. Available from: file:///C:/Users/user/Downloads/MESTRADO-ANGELA_ROSA_DA_SILVA.pdf

11. Araújo KA, Jacquet P, Santos SS, Almeida V, Nogueira SF. Reconhecimento da parada cardiorrespiratória em adultos: nível de conhecimentos dos enfermeiros de um pronto socorro municipal na cidade de São Paulo. Rev Inst Ciênc Saúde [Internet]. 2008 [cited 2016 Apr 19];26(2):183-90. Available from: http://www.unip.br/comunicacao/publicacoes/ics/edicoes/2008/02_abr_jun/V26_N2_2008_p183-190.pdf

12. Briao CBR, Souza NE, Castro RA, Rabelo RRE. Estudo de coorte para avaliar o desempenho da equipe de enfermagem em teste teórico, após treinamento em parada cardiorrespiratória. Rev Latino-Am Enfermagem [Internet]. 2009 Jan/Feb [cited 2016 Apr 19];17(1):52-58. Available from: http://www.scielo.br/pdf/rlae/v17n1/07.pdf

13. Marsch SCU, Muller C, Marquardt K, Conrad G, Tschan F, Hunziker PR. Human factors affect the quality of cardiopulmonary resuscitation in simulated cardiac arrest. Resuscitation [Internet]. 2004 [cited 2016 Apr 19];60(1):51-6. Available from: http://ac.els-cdn.com/S0300957203003034/1-s2.0-S0300957203003034-main.pdf?_tid=7ef279ea-0664-11e6-90e8-00000aab0f6c&acdnat=1461094117_f59b9a0322f345e1cf8824a6960bce1a

14. Murphy M, Fitzsimonds D. Does attendance at an immediate life support course influence nurses' skill deployment during cardiac arrest. Resuscitation [Internet]. 2004 July [cited 2016 Apr 19];62(1):49-54. Available from: http://ac.els-cdn.com/S0300957204000784/1-s2.0-S0300957204000784-main.pdf?_tid=9becb4e8-0664-11e6-9379-00000aab0f02&acdnat=1461094166_482082bd151d6c51207725a49dc88ad8

15. Capovilla NC. Ressuscitação cardiorrespiratória: uma análise do processo ensino/ aprendizagem nas universidades públicas estaduais paulistas [dissertação]. Faculdade de Ciências Médicas, Universidade Estadual de Campinas/UNICAMP (SP), Brasil; 2002.

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