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CASE REPORT ARTICLE

NURSING CARE TO THE VICTIM OF AORTIC ANEURYSM RUPTURE ASSISTÊNCIA DE ENFERMAGEM A VÍTIMA DE RUPTURA DE ANEURISMA AÓRTICO LA ATENCIÓN DE ENFERMERÍA A LA VÍCTIMA DE LA RUPTURA DE ANEURISMA AÓRTICO

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Objective: to report the experience lived by nursing students during care to a patient victim of rupture of an aneurysm of the aorta evolving to cardiorespiratory arrest. Method: a descriptive study of the type experience report lived by academics of the Undergraduate Nursing Course, discipline of Integral Health Care II - Module of High Complexity. Results: this experience has provided theoretical and practical aiming at obtaining knowledge and new behaviors based on the nursing process and integral assistance in adult critical care to the patient within the hospital of urgency and emergency and intensive therapy covering the steps of diagnosis, monitoring and treatment, as is the Ministry of Health. Conclusion: the experience in the field of hospital practice provided to academics of nursing involvement in complex situations that require the articulation of theoretical and experimental knowledge grounded in the classroom. It is possible to the extent that the hospital becomes a scenario of learning capable of beginning the critical reasoning to solve problems. Descriptors: Nursing Care; Bachelor of Nursing; Aortic Aneurysm; Cardiac Arrest; Emergency; Health.

RESUMO

Objetivo: relatar a experiência vivenciada por acadêmicos de enfermagem no cuidado a uma vítima de ruptura de aneurisma de artéria aorta, evoluindo com parada cardiorrespiratória. Método: estudo descritivo do tipo relato de experiência vivenciado por acadêmicos da graduação em enfermagem da disciplina de Atenção Integral à Saúde II - Módulo de Alta Complexidade. Resultados: esta experiência forneceu subsídios teóricos e práticos, visando a obtenção de conhecimentos e novos comportamentos com base no processo de enfermagem e na assistência integral no cuidado ao paciente adulto crítico no âmbito hospitalar de urgência e emergência e terapia intensiva, perpassando pelas etapas de diagnóstico, monitoramento e tratamento, como visa o Ministério da Saúde. *Conclusão*: a vivência no campo de prática hospitalar proporcionou aos acadêmicos de enfermagem o envolvimento em situações complexas que exigem a articulação dos saberes teóricos e experimentais fundamentados em sala de aula. Isso é possível à medida que o hospital se torna um cenário de aprendizagem capaz de suscitar o raciocínio crítico para soluções de problemas. Descritores: Cuidados de Enfermagem; Bacharelado em Enfermagem; Aneurisma Aórtico; Parada Cardíaca; Emergências; Saúde.

RESUMEN

Objetivo: reportar la experiencia vivida por los estudiantes de enfermería en el cuidado al paciente víctima de la ruptura de un aneurisma de la aorta evolucionada a paro cardiorrespiratorio. Método: se realizó un estudio descriptivo del tipo de informe, la experiencia vivida por los académicos del curso de enfermería de pregrado, disciplina de Atención Integral en Salud II - Módulo de Alta Complejidad. Resultados: esta experiencia ha proporcionado cursos teóricos y prácticos encaminados a obtener nuevos conocimientos y comportamientos basados en el proceso de la enfermería y la asistencia integral en cuidados críticos de adultos al paciente en el hospital de urgencia y emergencia y terapia intensiva, cubriendo los pasos de diagnóstico, seguimiento y tratamiento, como es el Ministerio de la Salud. Conclusión: la experiencia en el ámbito de la práctica hospitalaria proporcionó a los académicos de enfermería participación en situaciones complejas que requieren la articulación de conocimiento teórico y experimental basado en el aula. Es posible en la medida en que el hospital se convierte en un escenario de aprendizaje capaz de despertar el razonamiento crítico para resolver problemas. *Descriptores*: Cuidados de Enfermería; Bacharelato en Enfermería; Aneurisma Aórtico; Paro Cardiaco; Urgencias Médicas; Salud.

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INTRODUCTION

The curricular grade of the undergraduate nursing courses in Brazil are organized in order to form professionals qualified and trained to exercise the role of Nursing with responsibility, criticality, and social commitment. reflexivity Tο promote the integral health of human being, giving him the basic human responses in different clinician scenarios,1 the Federal University of Rio Grande do Norte (UFRN) builds its pedagogical project and

curriculum grade for the course of Nursing. It

bases on strategies aiming to train nurses to

be authorities who intervene on the concrete

reality of health services in the Country.²

Circumstantially scenario, to this requirements such as compulsory curricular component during the sixth period of undergraduation, there is the discipline of Integral Attention to Adult Health II. It consists of two modules, being one the Module of High Complexity, which aims to build clinical reasoning directed to the critical patient. With the development of nursing care skills, in environments of Intensive Care Unit (ICU), Emergency Room (PS) and situations of urgency and emergency, they contribute to nurses' training. They become energetic and with theoretical and practical knowledge for the management of critically ill patients.² This use of tools to evaluate these questions the objective structured clinical examination Objective Structured Clinical Examination (OSCE).

The OSCE started in 1975 and since then it applies in different courses in the area of Health Sciences. The same structures in a standardized manner, in order to evaluate the clinical skills and clinical reasoning of several students involved. lts methodological framework presents evaluative topics related anamnesis, physical examination, technical communication, skills interpretation of data. Its implementation is by means of a circuit of stations based on real fictitious situations carried out in laboratories of practical skills with the use of anatomical dummies and/or actors in that scholars evaluated have a determined time to solve the adversities found and performing the intervention they deem necessary appropriate.3

Evaluators prepared are responsible for analyzing the performance, behavior, and skills developed by student in the whole process of the OSCE, fulfilling evaluative protocols of checklists predetermined by the faculty involved. In the nursing undergraduate

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course at UFRN, this methodological tool has made opportune to students a greater safety for performance in real clinical scenarios, especially in tertiary health care to the Unified Health System (SUS).⁴

In this sense, it is worth noting that the actions and health services in Brazil offered by SUS decentralizes and organizes themselves into care networks. They aim better health care to the population, since each network matches the given set of care activities; that said, it is the tertiary level of health care where they are inserted in the hospitals, targeted to healthcare that demand higher technological density.⁵

Hospitals complex organizations are responsible for the training of professionals in the health area. To their extent, as a field of practice that favors the development of learning experiences, they provide students to be inserted into their reality with greater autonomy and better insight to ensure quality health care. 6 In their organization, there are the units of emergency. According to the Ministry of Health (MOH), they are defined as premises for the provision of assistance to the sick. With or without risk to life, whose health injuries require immediate care, ⁷ structured to ensure all maneuvers of sustaining life.8

The aortic aneurysm is a comorbidity that affects more men than women between the ages of 50 to 70 years old and is associated atherosclerosis 85% in of cases. Atherosclerosis is the response of many inflammatory processes that occur in the vascular endothelium due to deposition of toxic agents, causing weakness of the vessel wall. From there, there is an abnormal dilation of the vasculature, called aneurysms, associated to genetic and environmental factors, such as the continuous use of cigarettes and the deposition of substances reactive to oxygen, which leads imbalance and consequent homeostatic reduction in the production of elastin and collagen of the tunica intima, medium and adventitia interfaces endothelial.9

This disease is considered when its size exceeds one and a half times its normal size and holds of high importance in the clinic by a high degree of mortality due to possible unexpected rupture without prior intervention. When this occurs, the patient suffers a cardiorespiratory arrest due to the loss of endovascular volume caused by rupture of the aneurysm, without time for interventions, reaching this, death. ¹⁰

It believes that studies of this nature can contribute to the provision of theoretical subsidies to other students and nursing

professionals, that when faced with grievances with such diagnostics may schedule a nursing care quality.

OBJECTIVE

• To report the experience lived by nursing students in the care of a patient victim of rupture of an aneurysm of the aorta, evolving to cardiorespiratory arrest.

METHOD

A descriptive study of the type case studies experienced by academics from the sixth period of the nursing undergraduate course at UFRN, in the field of practical lessons, in order to comply with mandatory workload of the High Complexity of the discipline of Integral Health Care II, in the period from 3rd to 11th May of the year of 2017.

In accordance with the organization of the curricular structure of the course, the practical activities were developed in five days, in a unit of Emergency Department of the largest hospital of high complexity of the city of Natal/RN. The purpose of this action was to develop, with students and faculty, skills related to nursing care systematized to the patient in critical state of health, articulating the knowledge developed in the classroom, in the theoretical period, with the care process in real clinical scenario.

The undergraduates involved followed the daily operation of the health service, on the morning from eight to 12 o'clock in the morning. So reflective, the whole process of work carried out by the professional nursing care in hospital emergency rooms was accompanied by undergraduates. In addition, it made opportune the execution of skills and technical competencies, stimulating them to reflexive, posture critical, diagnostic reasoning, creativity and ethics in the hospital environment, based on the assumptions of priority of care at a High Complexity in SUS.

This experiment was conducted by a professor of the nursing undergraduate course at UFRN, specialist in urgency and emergency, PhD in Health Sciences and with experience in health services of high complexity.

RESULTS AND DISCUSSION

The experiment was carried out in the Hospital Complex of Monsenhor Walfredo Gurgel (HMWG), the largest public hospital in Rio Grande do Norte (RN). This complex involves two modes of healthcare services, these being the Hospital Monsenhor Walfredo Gurgel and Emergency Room Clóvis Sarinho, being these references in the emergency care

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through the SUS, more than four decades ago.¹¹

In all, the hospital has 284 Hospital distributed among Monsenhor Walfredo Gurgel and Emergency Room Clovis Sarinho. intended for the care approximately 7,000 patients per month (coming from the capital and the countryside of the state) in various specialties, such as clinical medicine, general surgery, cardiology which orthopedics. of 2100 hospitalized.11

The academics might then experience the practice of nursing care in the Hospital Monsenhor Walfredo Gurgel with patient care victim of arrest (CRA) resulting from rupture of aneurysm of the aorta. We observed that the clinical management, critical and methodological of the team, thus showing the importance of updating the nurses regarding the implementation of care based on international guidelines for cardiopulmonary resuscitation (CPR) of the American Heart Association (AHA) to patients with CRA levels. ¹²

During the practices identified in the patient clinical signals of pupillary dilation and dyspnea followed by peripheral cyanosis, characteristic of CRA. It intervened with the use of ventilatory support and heart monitoring, assisting the medical staff at the time of intubation, action that was previously performed in laboratory practice with realistic simulation by the OSCE. At the time of orotracheal intubation, it has identified a large amount of blood in the airways, which raised the possibility of rupture of the aortic aneurysm. Despite this, the monitor indicated pulseless electrical activity (PEA) and a decreasing cardiac frequency.

The actions decided by the team at the time of assistance have been maintenance of ventilation, use of vasoactive drugs and control of emotional situation involving the team and family members of the patient, therefore, immediate interventions aimed the resolution of the problem could not be implemented, given the limitations of clinical medicine. The pupillary dilation in the clinical examination showed itself mydriatic and fixed, with absence of contraction, indicating a possible brain death (BD) for possible reduction or absence of intracranial blood circulation.

The unpreparedness of the local team was evident in respect to human feelings related to the family, where the professionals must be united to comfort the loss of a relative, and the explanation of the limits present in the clinic along its impossibilities.

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The sentimentality that professionals with the passing of the years, sometimes lose when dealing with the human pain, being necessary to issues such as the "humanization" to remind everyone that humans while health professionals caring for other humans while patients, where the respect, the comprehensiveness and equity are part of the success of the assistance provided.

It was possible to understand the flow of an emergency room, as well as its difficulties related to the dimensioning of professionals, high demand with patients - day above the structural support of the hospital and lack of materials required to meet the demand.

With the conduct of the day, it became that the internship provides of improvements in the growth professional as well as future professionals. It may consider the ideal experienced in room and the real, brought by the practice, having the certainty that we can do better every day and fight for a nursing that will not only be recognized by feelings and yes scientific property, methodological and care, which uses theoretical tools applicable to each clinical situation and emotional.

The Nursing Process (PE) is a form of basis, structured by systematization of nursing care (SAE) aiming at the integral care to the patient, covering the steps of diagnosis, monitoring, and treatment, as directs the Ministry of Health. It is in this perspective that the module of high complexity shows itself with theoretical and practical subsidies for the obtaining of knowledge and adoption of new attitudes regarding the future professionals nurses in pre-hospital and hospital emergency rooms and intensive, can act proactively, without subordination of classes, with greater accuracy and resourcefulness. 13

According to Decree N 1,600, from 7th July 2011, in Brazil, by the Health Surveillance Department of the Ministry of Health (SVS/MS), highlights the increase in the number of morbidity and mortality in traffic accidents, violence and diseases of the circulatory system, such as the aneurysm. lt is evidenced the high socioeconomic cost that networks emergency must have to meet the critical patient with multiprofessional the specialized and trained.

The urgency and emergency unit offers various services of high complexity and advanced technologies in care for patients at risk of imminent life. However, despite the harsh light technologies and harsh enjoyed in the assistance to be indispensable, they are

not sufficient to guarantee the quality of care, since other factors influence decisively in this process, as the coefficients related to the patient and the labor force the care team. ^{15,16}

The process of nursing work fits in the incessant struggle against time to achieve the vital balance. That said, the voltage shows himself as a constant challenge of this work environment, in which the health team assigned to emergency service experience situations under pressure caused by stress factors such as responsiveness and accuracy of the interventions by the exorbitant demand for care and daily experiences of death. ^{13,17}

Thus, the professional nurse is known by other health professionals as an authority articulator, integrator, and intermediary of varied knowledge between the professions, mainly, by being constantly beside the patient and to be able to identify with greater simplicity and insight changes and needs of those who are taken care of. The interaction between professionals in the care of patients in situations of urgency and emergency favors the linkage and connection of different areas of knowledge in favor of an appropriate assistance and with less likelihood of risks, aiming at the exchange, cooperation, and immediate solutions to the user in the units of hospital emergency department. 18-9

CONCLUSION

The experience in the field of hospital practice provided to students of nursing involvement in complex situations that require the articulation of theoretical and experimental knowledge grounded in the classroom. It is possible to the extent that the hospital becomes a scenario of learning able to instill in students the critical reasoning to solve problems, to contact those with specific situations in the health-disease process.

From this perspective, one can engage students in the improvement of techniques, skills and interventions from the critical eye and clinical for the assistance to the patient victim of CRA resulting from a ruptured aneurysm in the aorta.

It also allowed the knowledge and reflection on the dynamics of care from an emergency unit installed in a general hospital, which it needs nursing increasingly offer and prepared both in theory. As for the experiences of the intra-hospital attending, as psychologically, accompanied by a team of work that strengthen with the improvement of the quality of health services provided to the community, this occasionally, arising out of

adverse events, thus requiring organization, preparation and timing of the team.

REFERENCES

- 1. Fernandez JD, Rebouças LC. A decade of National Curriculum Guidelines for Graduation in Nursing: advances and challenges. Rev Bras Enferm. 2013 Sept;66(Spe):95-101. Doi: http://dx.doi.org/10.1590/S0034-71672013000700013
- 2. Universidade Federal do Rio Grande do Norte, Centro de Ciências da Saúde, Departamento de Enfermagem. Projeto Pedagógico do Curso de Enfermagem Natal [Internet]. Natal: UFRN; 2008 [cited 26 Aug 2017]. Available from: https://sigaa.ufrn.br/sigaa/public/curso/documentos.jsf?lc=pt_BR&id=2000023&idTipo=2
- 3. Costa RA, Araújo JNM, Fernandes APNL, Carvalho DPSRP, Júnior Ferreira MA, Vitor AF. Professors' assessment of the objective structured clinical examination as a tool of the teaching and apprenticeship in nursing. J Nurs UFPE on line [Internet]. 2016 June [cited 2017 July 29]; 10(6):2051-8. Available from: https://periodicos.ufpe.br/revistas/revistaenfermagem/article/view/11217/12798
- 4. Medeiros SB, Pereira CDFC, Tourinho FSV, Fernandes LGG, Santos VEP. Objective structured clinical examinations: reflections from a nursing perspective. Cogitare Enferm. 2013 Jan/Mar; 19(1):170-3. Doi: http://dx.doi.org/10.5380/ce.v19i1.35977
- 5. Ministério da Saúde (BR), Gabinete do Ministro. Portaria nº 2.395, de 11 de outubro de 2011. Organiza o Componente Hospitalar da Rede de Atenção às Urgências no âmbito do Sistema Único de Saúde (SUS) [Internet]. Brasília: Ministério da Saúde; 2011 [cited 2017 July 15]. Available from: http://bvsms.saude.gov.br/bvs/saudelegis/g m/2011/prt2395_11_10_2011.html
- 6. Sales PRS, Marin MJS, Silva Filho CR. Academy-service integration in the training of nurses in a teaching hospital. Trab Educ Saúde. 2015 Sept/Dec;13(3):675-93. Doi: http://dx.doi.org/10.1590/1981-7746-sip00057
- 7. Ministério Saúde (BR), Secretaria da Nacional de Ações Básicas de Saúde, Divisão Nacional de Organização de Serviços de Terminologia Básica em [Internet]. Brasília: Ministério da Saúde; 1983 [cited 2017 July 20]. Available http://bvsms.saude.gov.br/bvs/publicacoes/0 113terminologia3.pdf
- 8. Conselho Federal de Medicina. Resolução nº 1451 de 10 de Março de 1995 [Internet]. Brasília: COFEN; 1995 [cited 2017 July 21].

Nursing care to the victim of aortic...

Available from: http://www.portalmedico.org.br/resolucoes/cfm/1995/1451_1995.htm

- 9. Hinkle JL, Cheever KH. Brunner & Suddarth: tratado de enfermagem médicocirúrgica. 13th ed. Rio de Janeiro: Guanabara Koogan; 2016.
- 10. Serrano Jr CV, Timerman A, Stefanini E. Tratado de cardiologia SOCESP. 3rd ed. São Paulo: Manole, 2015.
- 11. Hospital Monsenhor Walfredo Gurgel PSCS. O Hospital [Internet]. Rio Grande do Norte: HMWG; 2016 [cited 2017 July 30]. Available from: http://www.walfredogurgel.rn.gov.br/Conteudo.asp?TRAN=ITEM&TARG=33384&ACT=&PAGE=0&PARM=&LBL=Institui%E7%E30
- 12. Alves AC, Barbosa CNS, Faria HTG. Cardiorespiratory arrest and nursing: the knowledge on basic life support. Cogitare Enferm. 2013 Apr/June;18(2):296-301. Doi: http://dx.doi.org/10.5380/ce.v18i2.32579
- 13. Maria MA, Quadros FAA, Grassi MFO. Systematization of nursing care in urgency and emergency services: feasibility of implementation. Rev Bras Enferm. 2012 Mar/Apr;65(2):297-303. Doi: http://dx.doi.org/10.1590/S0034-71672012000200015
- 14. Ministério da Saúde (BR), Gabinete do Ministro. Portaria nº 1600, de 7 de julho de 2011. Reformula Política Nacional de Atenção às Urgências e institui a Rede de Atenção às Urgências no Sistema Único de Saúde (SUS) [Internet]. Brasília: Ministério da Saúde; 2011 [cited 2017 July 30]. Available from: http://bvsms.saude.gov.br/bvs/saudelegis/gm/2011/prt1600_07_07_2011.html
- 15. Nunes AA, Mello LM, Ana LW, Marques PMA, Dallora MEL, Martinez EZ, et al. Evaluation and incorporation of health technologies: process and methodology adopted by a high-complexity care university. Cad Saúde Pública. 2013; 29 (Suppl 1):179-86. Doi: http://dx.doi.org/10.1590/0102-311X00001213
- 16. Almeida EF. Assistência de Enfermagem na UTI frente ao uso de tecnologias: uma revisão integrativa [monography] [Internet]. São Luís: Universidade Federal do Maranhão; 2017 [cited 2017 July 30]. Available from: https://monografias.ufma.br/jspui/handle/12 3456789/1281
- 17. Lanzoni GMM, Magalhães ALP, Costa VT, Erdmann AL, Andrade SR, Meirelles BHS. Becoming nursing manager in the nested and complex border of caring and management dimensions. Rev Eletrônica Enferm. 2015

ISSN: 1981-8963

Silva TTM da, Costa ICS, Ramos DV et al.

Apr/June;17(2):322-32. Doi: http://dx.doi.org/10.5216/ree.v17i2.29570

18. Soto-Fuentes P, Reynaldos-Grandon K, Martinez-Santana D, Jerez-Yanez O. Skills for Nurses in the Field of Management and Administration: Contemporary Challenges to the Profession. Aquichan. 2014;14(1):79-99. Doi:

http://dx.doi.org/10.5294/aqui.2014.14.1.7.

19. Santos JL, Lima MA, Pestana AL, Colomé IC, Erdmann AL. Strategies used by nurses to promote teamwork in an emergency room. Rev Gaúcha Enferm. 2016 Mar;37(1):e50171.

Doi: <u>10.1590/1983-1447.2016.01.50178</u>

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