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Silva, Hetiani Barretta da; Silva, Kauana Flores da; Diaz, Claudia Maria Gabert

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A enfermagem intensivista frente à doação de órgãos: uma revisão integrativa

Intensive nursing front of organ donation: an integrative review

La enfermería intensiva frente a la donación de órganos: una revisión integrativa

Hetiani Barretta da Silva¹; Kauana Flores da Silva²; Claudia Maria Gabert Diaz³

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ABSTRACT

Objective: To identify the productions that address the role of the intensive care nurse in the context of brain death, identifying their results and conclusions. **Methods:** It was used the literature integrative review in SciELO database with six stages, namely: problem formulation, data collection, data evaluation, analysis and interpretation of results and synthesis of knowledge. The data of the selected articles were organized into tables for better understanding of them. **Results:** There were 17 articles on theme, of these, 3 had the inclusion criteria of the study. **Conclusion:** One can see the relevance of a specific knowledge of health professionals, especially nurses, in donation and transplantation area, and the limited number of publications on the subject by the nurses and the precarious approach to donation and transplantation in the curriculum graduation.

Descriptors: Brain Death; Nursing; Transplants; Intensive Care Unit.

¹ Nurse. Specialist in Intensive Care.

² Nurse. Specialist in Management and Hospital Attention in the Unified Health System. Specialist in Management of Public Health Organizations. Master in Nursing. Email: uanaflores@yahoo.com.br.

³ Nurse. Specialist in Nursing Services Administration. Specialist in Obstetric Nursing. Master in Nursing and PhD in Sciences.

RESUMO

Objetivo: Identificar as produções que abordam o papel do enfermeiro intensivista no contexto da morte encefálica, identificando seus resultados e conclusões. **Métodos:** Utilizou-se a revisão integrativa da literatura na base de dados Scielo com seis etapas, sendo elas: formulação do problema, coleta de dados, avaliação dos dados, análise e interpretação dos resultados e a síntese do conhecimento. Os dados dos artigos selecionados foram organizados em tabelas para melhor compreensão dos mesmos. **Resultados:** Foram encontrados 17 artigos sobre tema, destes, 3 apresentavam os critérios de inclusão da pesquisa. **Conclusão:** Pode-se perceber a relevância de um conhecimento específico dos profissionais da saúde, principalmente os enfermeiros, na área de doação e transplantes, bem como o limitado número de publicações sobre o tema por parte dos enfermeiros e a precária abordagem sobre doação e transplantes nos currículos da graduação.

Descritores: Morte Encefálica; Enfermagem; Transplantes; Unidade de Terapia Intensiva.

RESUMEN

Objetivo: Identificar las producciones que abordan el papel del enfermero de cuidados intensivos en el contexto de la muerte cerebral, la identificación de sus resultados y conclusiones. **Métodos:** Se utilizó la revisión integradora literatura en la base de datos SciELO con seis etapas, a saber: formulación del problema, recopilación de datos, evaluación de datos, análisis e interpretación de los resultados y síntesis del conocimiento. Los datos de los artículos seleccionados se organizaron en mesas para una mejor comprensión de las mismas. **Resultados:** Se encontraron 17 artículos sobre el tema de estos, 3 tenían los criterios de inclusión del estudio. **Conclusión:** Se puede ver la relevancia de un conocimiento específico de profesionales de la salud, sobre todo enfermeras, en la donación y el trasplante de área y el número limitado de publicaciones sobre el tema de las enfermeras y el enfoque precaria a la donación y el trasplante en los planes de estudios de pregrado.

Descritores: Muerte Cerebral; Enfermería; Trasplantes; Unidad de Cuidados Intensivos.

INTRODUCTION

The encephalic death (ED) is identified in the Intensive Care Unit (ICU) where patients with head injury, intracranial hemorrhage, ischemic injury evolve, often, to ED and, after the finding and discarding contraindications that pose risks to the recipient of the organs, the patient is considered potential organ donor. This confirmation is carried out in two stages, the clinical diagnosis and laboratory tests, carried out by two different doctors who are not part of the removal team and organ transplants.¹⁻²

Transplantation involves the extraction of "living" organs from lifeless human bodies (donors). In the case of individuals with ED, the organs will replace the inefficient ones of another person (receiver).³

Specific tests for the detection of ED include the motor tests, evaluation of oculo head reflection, oculo labial evaluation, evaluation of corneal reflexes, cough and nausea and testing of apnea. Proof of ED is through tests such as cerebral angiography, electroencephalography,

transcranial Doppler and clinical data must be recorded in ED statement term.⁴

In recent years there has been an increase in the number of organ transplants performed in Brazil, placing it among the countries that perform more transplants in the public network and this process takes place through the Unified Health System (SUS), or is only held by public means, being forbidden the private sector to participate in this procedure.²

Brazil, in 1968, published his first legislation for transplants, the law 5479, which provided for the removal and transplantation of tissues, organs and parts of corpses for therapeutic and scientific purposes, but without any legislation that would regulate the completion of these procedures. Thus, in 1997 it created the law 9434, called Transplant Law, and the 2268 decree that bring the creation of the National Transplant System (NTS), establishing the legal definitions, guarantees and direct patients and all regulation of the health care network in accordance with the laws 8.080 and 8.142 of 1990 governing the SUS, as well as establishing the guidelines for the National Tissue Transplants Policy Organs and Human Body Parts to the present.⁵

The National Policy of Tissue Transplants, Organ and Human Body Parts based on the guidelines of the gratuitousness of the donation, the repudiation and combating trade in organs and the principles of beneficence and nonmaleficence and is constituted in a divided process detection, assessment and maintenance of the potential donor, diagnosis of ED, family consent or absence of negative, brain death documentation, removal and distribution of organs and tissues, transplant and follow-up results.⁶

In this context, the donation and transplantation process is divided into different stages, many professionals are involved, among them nurses. These professionals are part of the transplantation teams and organs search organizations involved in several activities determined by Resolution of the Federal Council of Nursing (COFEN) No. 292/2004, including notifying Capture Centers and Distribution of Organs (CNNCDO) from potential donors, Interview the legal guardian of the donor and provide information about the process and apply the Systematization of Nursing Assistance (SAE) to the receiver.⁷

Most deaths with potential organ donation for transplantation occurs in the ICU, and the complexity of this therapeutic modality requires specialized and constant preparation of the health team of professionals involved in patient care and in daily life, nurses are challenged to provide quality care to patients and families.^{1,8}

The intensive care requires skilled and trained professionals who understand the process of organ donation seeking appropriate assistance to the potential donor. In this scenario, the critical care professionals, especially doctors and nurses, are responsible for maintaining this patient, and these should be trained and knowledgeable of the pathophysiology of brain death and its clinical implications.⁹ Thus, the assistance provided in the process of potential patients donor

organs and tissues permeates by a multidisciplinary team in which all have well-defined actions. This research has the main question: What are the roles of the intensive care nurse before the potential organ donor?

Interest in the development of this research came from the existing problems on the subject and its social relevance. Thus, this study aims to identify the productions that address the role of the intensive care nurse in the context of ED, identifying their results and conclusions.

METHODS

This is a qualitative research on the integrative review of literature method (IR). Qualitative research provides a level of reality that is not translated into numbers and encompasses a universe of meanings, motives, values and attitudes of the subject, interpreting their actions within their individual and collective reality and valuing the invisible and unquantifiable meanings.¹⁰

The IR is a method that provides a synthesis of knowledge and the union of the applicability of the results of significant studies in practice, contributing to discussions on methods and research results. The initial goal of this method is to obtain an understanding of certain phenomena based on previous research. The IR has six distinct stages in its development process, thus contributing to the reader to identify the real characteristics of the studies included in the review.¹¹

The first phase of this research was the problem formulation to be studied: "What is the role of the critical care nurse before the patient potential organ donor?"

The second phase included the collection of data, it was identified 17 articles for the purpose of study and using the database Scientific Electronic Library Online (SciELO).¹² The descriptors were Encephalic Death, Nursing, Transplants and Intensive Care Unit in the 2008-2013 period.

Thus, the evaluation of the data, contained in the third phase of the research, occurred after reading the summaries. In the end, we conducted a summary table, which addressed aspects: title search, authors' names, objective of the study, methodology, article publication site, year, city, number and volume of the issue.

Inclusion criteria were: articles published in Portuguese with abstract and full text available in the database, be qualitative research and address the issue of the research. After the use of the inclusion criteria, of the 17 articles identified, three were selected.

The fourth phase was the analysis and interpretation, which consisted in the synthesis of the results of the selected studies intermediated with theoretical discussion.

The fifth phase included the interpretation of results from the preparation of tables with relevant data, gaps and trends of research.

The sixth and final stage is the synthesis of knowledge, and also the presentation of the review, considering the steps taken and the results shown to the analysis of the included articles.

RESULTS

We analyzed three studies according to the inclusion criteria mentioned above, which are distributed in individual Tables with the data relevant to the selection, accompanied by the synthesis of the same for better understanding.

On each table are the studies analyzed with their respective defined categories: nursing care, emotional aspects and nurse assignments.

Table 1 - Nursing care - Article Summary 01

Title	Nursing assistance to the potential organ donor with brain death. ⁴
Authors	Nancy Ramos Guetti, Isaac Rosa Marques.
Year	2008
Objective	Describe the role of nurses in assistance for the physiological maintenance of potential organ donor.
Search Type	Unstructured Literature Review.

Prepared by the authors.

The study was based on the materials of the Brazilian Association of Organ Transplants and Brazilian Association of Intensive Medicine and the results were organized according to the following topics: ethical aspects related to the removal of organs and tissues, pathophysiological effects of ED, its clinical and technological signs and nursing care in the physiological maintenance of the potential organ donor. The study showed that it is essential the knowledge of nursing professionals about the possible pathophysiological changes resulting from ED and by putting into practice this knowledge, their role will contribute for changes in transplants scenario.

Table 2 - Emotional aspects - Article Summary 02

Title	Emerging the complexity of nursing care facing a brain death
Authors	Aline Lima Pestana, Alacoque Lorenzini Erdmann, Francisca Georgina Macêdo de Sousa. ¹
Year	2012
Objective	Unveiling the complexity of nursing care to brain-dead.
Search type	Grounded Theory.

Prepared by the authors.

The study used as theoretical and methodological reference complex thinking and Grounded Theory, respectively. Data were collected in a university hospital in northeastern Brazil, from December 2010 to June 2011, through non-structured interviews. The sample consisted of 12 nurses, distributed in three sample groups. The phenomenon "Unveiling multiple relationships and interactions of being a nurse in the complexity of the care to be in ED" was defined by five categories. In this article, the

category “Emerging from the complexity of nursing care to be in ED” was addressed. It was concluded that care to be in ED is characterized by disorder and uncertainty, causing the nurse to experience diverse and ambivalent feelings and complexity to understand its uniqueness and dialogical.

Table 3 - Nurse assignments - Summary Article 03

Title	Transplantation of organs and tissues: nurse's responsibilities.
Authors	Karina Dal Sasso Mendes, Bartira de Aguiar Roza, Sayonara de Fátima Faria Barbosa, Janine Schirmer, Cristina Maria Galvão. ⁸
Year	2012
Objective	Some considerations on the role and responsibilities of nurses who work in organ and tissue transplantation program.
Search Type	Narrative review.

Prepared by the authors.

This study was based on reading, organizing and synthesizing the selected texts into five thematic categories: nursing role definition in transplant difference between clinical nurse and the nurse transplant coordinator, legal and ethical aspects, research and information and education transplants. It was concluded that nurses must have knowledge and resources available to evaluate the whole issue involving transplants.

DISCUSSION

The relevant results identified in the analyzed articles were present, intermingled with theoretical discussion in order to contemplate the purpose of this research.

Article 01 describes the role of nursing and its importance in handling patient in ED with potential for organ donation and the authors bring assistance in detail, thus helping professional nurses in making decisions facing the problem. Contributing to this fact is article 03 which intensifies the importance of training as an essential support to decision-making of the nurse in the patient with ED, as well as preparing the professional to understand the conflicts and human suffering generated by this process.

The study addresses the ethical aspects related to the removal of organs and tissues, highlighting legislative developments, also addresses the pathophysiological effects of ED with cardiovascular, pulmonary, endocrine, hepatic, coagulation and temperature changes, describes the clinical and technological signs for hemodynamic adequacy and nursing care in the physiological maintenance of the donor, in which nurses need extensive knowledge of the possible complications, allowing early recognition and subsequent handling for the preservation of organs, therefore, to put in place such knowledge, its role contribute to changes in the transplant setting, since

the impact on the achievement of some transplants is directly related to the performance of nursing.

As well as the ethical aspects brought by article 01, another study deals with the question of bioethics, intensifying that, even if the professional appreciates their attributions in the process of donation and transplantation, it is often necessary psychological counseling due to the ensuing internal conflicts in dealing with death and, at the same time, the chance of life.³ This context is reported in article 03, which confirmed the presence of many feelings that can be harmful to professional and consequently their relationship with work.

Within this context, there is article 03, which also emphasizes the significance of specific knowledge for the nurse to understand and act efficiently and effectively with the patient in ED and corroborates another study that intensifies the importance of knowledge since graduation, still limited in Brazilian institutions.¹³

Study 02 brings the feelings of nurses towards patients with ED, the complexity of care and advances in care to them. The results presented address the feelings of uncertainty, grief, disorder, frustration and disappointment, reported by the surveyed nurses and the complexity involved in patient care is in its uniqueness and dialogical. These feelings come to meet another study, conducted in 2007, which aimed to understand the experience of nursing in patient care in ED and found feelings of insecurity, helplessness and suffering.¹⁴

Another result of study 02 addresses the advancement of patient care in ED since there has been a paradigm shift previously related to death and becomes the chance of a new life through transplantation. Thus, patients who in the past received only care for until his death, now receive intensive attention in the hope of giving.

Within this context, the author brings the feeling of frustration that occurs in nurses when the patient has died and transplantation becomes unviable, and through interpersonal relationship that develops in the course of care. Adding this result has been a study to identify the feelings of nurses working in the harvesting of organs and found that these professionals need to be looked after by experiencing often an ambivalence of feelings that may impair their mental and physical health.¹⁵

Regarding the care complexity of patient in ED, the study 02 affirms, requires a multidisciplinary care between the ICU staff and the organs and transplants capture service with actions that are linked to each other so that the donation and transplantation process take effect with quality, which requires professional interdependence, cooperation and integration of the multidisciplinary team. Added to this is the experience of caring for that patient, which gives the nurse a change in professional attitude. These results were also observed in the study 03, which highlights the importance of nurses in organ donation and transplantation processes, as well as the multidisciplinary performance to get a quality care.

This importance is related to the need of the nurse, especially intensivist, since it is in the ICU that the ED with potential for donation happens, be prepared to identify this case and be able to perform the care to enable the transplantation process.⁹

Another result that article 02 reports is the need to review the curriculum of undergraduate nursing courses in order to increase knowledge of the ED concept and diagnosis protocol to thereby reduce feelings of uncertainty of professionals.

Article 03 provides the definition of the role of nurses in the transplant, to guide their actions for health education, patient safety and effectiveness of care also addresses the difference between clinical nurse and the nurse transplant coordinator, the first one promoting nursing care and the second one who coordinates the stages of the transplant process. This difference can be understood to know that the work of the National Organization of Spanish transplants, which has the highest number of donors by proportion of inhabitants of the world and follows the successful work of transplant coordinators with training and skills differentials.³

Highlights the legal and ethical aspects of the donation and transplantation process with the regulations of the Federal Council of Nursing (COFEN) for work of nurses, as well as the standardization of care, showing the importance of certification for these professionals in order to qualify it and considers the importance of the registration of the shares.

Another approach of article 03 is related to the research, information and education in transplants, with evidence-based care and the growing participation of Brazilian nurses in conducting research, making visible the importance of their work to improve the care of patients in donation and transplantation process. This observation differs from another study that emphasizes the low production of research in nursing on the various aspects of donation and transplantation.¹³

Article 03 emphasizes the importance of available resources and knowledge for the nurses who work with patients in ED. This knowledge involves three aspects, the education itself, the education of other health care providers and education of the general public through continuing education and in health.

Is highlighted in article 03 the need for training health professionals in the donation and transplantation process to perform actions that enable to reduce the loss of the potential donor, reduce the suffering of people in the queue. Corroborating this result, a study in the state of Ceará also concluded the need to train health professionals who are involved in the transplant process.¹⁶

In this context, the training associated with clinical practice allows nursing professionals to engage effectively in decision-making, since it is undeniable the contribution within the multidisciplinary team, this complex process involving transplants.

Another result that article 03 reports is the small number of Brazilian higher education institutions that

provide training in this field of knowledge because the necessary clinical skills go beyond those acquired during the undergraduate nursing. This observation is in line with article 02 and corroborates data obtained in the Evaluation Report of Organ and Tissue Donation, Capture and Transplantation Program, which considers rare higher education institutions offering specific discipline on ED.¹⁷

CONCLUSION

This study provided the perception that the care provided to patients with brain death and potential organ and tissue donor is of utmost importance for the success of a future transplant and, in this scenario, it is the fundamental role of the nurse in the whole process, maintaining the desirable parameters so that the patient does not evolve to death, especially in the ICU, since it's where most of the ED occur.

It can be noticed that the three articles analyzed present as central axis the knowledge of the nurse to be prepared to act in front of the ED and all the contexts inserted in it.

Thus, the articles discuss the relevance that exists in training through continued education of the professional nurse to work with the patient in brain death and in action towards the donation and transplantation.

Articles emphasized knowledge as the central axis of this action and bring the problem of the limited number of specific courses in the area as well as the need to review the curricula of universities so that future professionals are formed with minimal preparation to deal with patients in encephalic death, whether in the context of clinical, emotional or social care.

Another note found in articles was related to nursing publications in donation and transplantation area that, even increased, is still insufficient to support the routine care of this in the context of the activities of nurses. This justifies the small number of publications on the topic proposed in the databases during the collection for this research, which leaves a gap in the knowledge of the professional nurse in the potential organ donor. The small number of articles found was insufficient to demarcate the actual functions of the professional nurse in the intensive care unit to care for the patient with ED.

It is emphasized here the importance of the nursing staff to perform scientific journals of their experiences as well as explore this subject in undergraduate and graduate nursing as today donation and transplantation of organs and tissues is a growing reality in the area.

Among the limitations of the study is the small number of publications found considering the period of publication and the proposed inclusion criteria, making it necessary to further study in the area to then provide growth and foundation of active nursing against encephalic death and, consequently, in the donation process and transplants.

REFERENCES

1. Pestana AL, Santos JLG, Erdmann RH, Silva EL, Erdmann AL. Pensamento *Lean* e cuidado do paciente em morte encefálica no processo de doação de órgãos. *Rev Esc Enferm USP* [internet]. 2013 [acesso em 12 out 2013]; 47(1):258-64. Disponível em: <http://www.scielo.br/pdf/reeusp/v47n1/a33v47n1.pdf>.
2. Ministério da Saúde (BR) [homepage na Internet]. Produção de transplantes de 2001 a 2006 [atualizado em 2007; acesso em 15 fev 2013]. Disponível em: <http://www.saude.gov.br>.
3. Lima AAF. Doação de órgãos para transplante: conflitos éticos na percepção do profissional. *Mundo saúde* [internet]. São Paulo (SP). 2012 [acesso em 15 nov 2013]; 36(1):27-33. Disponível em: http://www.saocamilo-sp.br/pdf/mundo_saude/90/02.pdf.
4. Guetti NR, Marques IR. Assistência de enfermagem ao potencial doador de órgãos em morte encefálica. *Rev Bras Enferm* [periódico na internet]. Brasília (DF). 2008 jan-fev [acesso em 12 fev 2013]; 61(1):91-7. Disponível em: <http://www.scielo.br/pdf/reben/v61n1/14.pdf>.
5. Ministério da Saúde (BR). Sistema Nacional de Transplantes [homepage na internet]. Informações sobre o SNT. [data desconhecida; acesso em 22 out 2013]. Disponível em: <http://dtr2001.saude.gov.br/sas/dsra/integram.htm>.
6. Ministério da Saúde (BR). Portal da Saúde SUS [homepage na internet]. O Sistema Nacional de Transplantes. [criado em 16 out 2013; acesso em 22 out 2013]. Disponível em: <http://portalsaude.saude.gov.br/index.php/o-ministerio/principal/transplantes-old>.
7. Conselho Federal de Enfermagem [homepage na Internet]. Resolução COFEN 292, de 7 de junho de 2004. Normatiza a Atuação do Enfermeiro na Captação e Transplante de Órgãos e Tecidos. [acesso em 10 out 2013]. Disponível em: http://www.cofen.gov.br/resoluco-cofen-2922004_4328.html.
8. Mendes KDS, Roza BA, Barbosa SFF, Schirmer J, Galvão CM. Transplante de órgãos e tecidos: responsabilidades do enfermeiro. *Texto & contexto enferm* [internet]. Florianópolis (SC). 2012 out-dez [acesso em 25 jul 2013]; 21(4):945-53. Disponível em: <http://www.scielo.br/pdf/tce/v21n4/27.pdf>.
9. Maia BO, Amorim JS. Morte Encefálica: conhecimento de acadêmicos de enfermagem e medicina. In: *Jornal Brasileiro de Transplantes* [internet]. São Paulo (SP). 2009 abr-jun [acesso em 23 mai 2013]; 12(2):1088-91. Disponível em: <http://www.abto.org.br/abtov03/Upload/file/JBT/2009/2.pdf#page=8>.
10. Deslandes SF, Gomes R, Minayo MCS, organizadora. *Pesquisa social: teoria, método e criatividade*. 31ª ed. Petrópolis (RJ): Vozes; 2012. 108p.
11. Mendes KDS, Silveira RCCP, Galvão CM. Revisão integrativa: Método de pesquisa para a incorporação de evidências na saúde e na enfermagem. *Texto & contexto enferm* [internet]. Florianópolis (SC). 2008 out-dez [acesso em 25 mai 2013]; 17(4):758-64. Disponível em: <http://www.scielo.br/pdf/tce/v17n4/18.pdf>.
12. Scientific Electronic Library Online [internet]. São Paulo (SP). Disponível em: <http://www.scielo.org/php/index.php>.
13. Cicolo EA, Roza BA, Schirmer J. Doação e transplante de órgãos: produção científica da enfermagem brasileira. *Rev Bras Enferm* [internet]. Brasília (DF). 2010 mar-abr [acesso em 12 fev 2013]; 63(2):274-8. Disponível em: <http://www.scielo.br/pdf/reben/v63n2/16.pdf>.
14. Lemes MMDD, Bastos MAR. Os cuidados de manutenção dos potenciais doadores de órgãos: estudo etnográfico sobre a vivência da equipe de enfermagem. *Rev latinoam enferm* [internet]. 2007 set-out [acesso em 22 mar 2013]; 15(5). Disponível em: http://www.scielo.br/pdf/rlae/v15n5/pt_v15n5a15.pdf.
15. Lima AAF, Silva MJP, Pereira LL. Sofrimento e contradição: o significado da morte e do morrer para enfermeiros que trabalham no processo de doação de órgãos para transplante. *Enfermeria Global* [internet]. 2009 fev [acesso em 13 nov 2012]; (15):1-17. Disponível em: http://scielo.isciii.es/pdf/eg/n15/pt_clinica1.pdf.
16. Aguiar MIF, Araújo TOM, Cavalcante MMS, Chaves ES, Rolim ILTP. Perfil de doadores efetivos de órgãos e tecidos no estado do Ceará. *REME rev min enferm* [internet]. 2010 jul-set [acesso em 12 nov 2012]; 14(3):353-60. Disponível em: file:///D:/_Arquivos/Downloads/v14n3a09.pdf.
17. Tribunal de Contas da União (BR). Relatório de avaliação de programa doação, captação e transplante de órgãos e tecidos. Relator Ministro Marcos Vinicius Vilaça, Brasília (DF): TCU, Secretaria de Fiscalização e Avaliação de Programas de Governo; 2006. 134p. Disponível em: <http://portal2.tcu.gov.br/portal/pls/portal/docs/2058972.PDF>.

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Author responsible for correspondence:

Kauana Flores da Silva

Rua Atílio Munari, 68

Bairro João Goulart. Santa Maria/RS

E-mail: uanaflores@yahoo.com.br

ZIP-code: 97090-090