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Nursing care given to potential organ donor in brain death: an integrative review

ABSTRACT | OBJETIVO: Conhecer os cuidados de enfermagem dispensadas ao potencial doador de órgãos em morte encefálica. MÉTODO: Revisão integrativa que se dividiu em seis etapas. Os critérios de inclusão foram os artigos disponíveis completos e gratuitos, em qualquer idioma visto a grande escassez de estudos na área, publicados entre os anos de 2010 a 2016. RESULTADOS: Foram encontrados 179 artigos dos quais 17 cumpriram aos critérios estabelecidos e foram incluídos na presente revisão. O conhecimento é essencial para a realização das condutas normalmente realizadas. A abordagem familiar dos potenciais doadores também faz parte das condutas de enfermagem, visto ser uma abordagem multiprofissional. Esse ponto é um dos mais críticos do processo de doação, visto o grande obstáculo interposto pelos familiares. CONCLUSÃO: É de grande importância que o profissional de enfermagem tenha sistematizada as ações que adotará frente a um caso de morte encefálica, principalmente relacionado a conduta com familiares.

Keywords: Obtaining Tissues and Organs; Nursing; Brain death.

RESUMEN | OBJETIVO: Conocer la atención de enfermería proporcionada al potencial donante de órganos en la muerte cerebral. METODO: Revisión integrativa que se dividió en seis etapas. Los criterios de inclusión fueron los artículos disponibles completos y gratuitos, en cualquier idioma visto por la gran escasez de estudios en la zona, publicados entre los años 2010 y 2016. RESULTADOS: Encontramos 179 artículos, 17 de los cuales cumplieron con los criterios establecidos y fueron incluidos en esta revisión. El conocimiento es esencial para realizar las conductas que normalmente se realizan. El enfoque familiar de los donantes potenciales también forma parte de las conductas de enfermería, ya que es un enfoque multiprofesional. Este punto es uno de los más críticos del proceso de donación, dado el gran obstáculo que traen los miembros de la familia. CONCLUSION: Es de gran importancia que el profesional de enfermería haya sistematizado las acciones que adoptará ante un caso de muerte cerebral, principalmente relacionadas con la conducta con los miembros de la familia.

Palabras claves: Obtención de tejidos y órganos; Enfermería; Muerte cerebral.

RESUMO | OBJETIVO: Conhecer os cuidados de enfermagem dispensadas ao potencial doador de órgãos em morte encefálica. MÉTODO: Revisão integrativa que se dividiu em seis etapas. Os critérios de inclusão foram os artigos disponíveis completos e gratuitos, em qualquer idioma visto a grande escassez de estudos na área, publicados entre os anos de 2010 a 2016. RESULTADOS: Foram encontrados 179 artigos dos quais 17 cumpriram aos critérios estabelecidos e foram incluídos na presente revisão. O conhecimento é essencial para a realização das condutas normalmente realizadas. A abordagem familiar dos potenciais doadores também faz parte das condutas de enfermagem, visto ser uma abordagem multiprofissional. Esse ponto é um dos mais críticos do processo de doação, visto o grande obstáculo interposto pelos familiares. CONCLUSÃO: É de grande importância que o profissional de enfermagem tenha sistematizada as ações que adotará frente a um caso de morte encefálica, principalmente relacionado a conduta com familiares.

Palavras-chaves: Obtenção de Tecidos e Órgãos; Enfermagem; Morte encefálica.

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INTRODUCTION

It is of great importance that the nursing professional has systematized the actions that he will take in the event of a brain death case, mainly related to the conduct related to families, due to the fact that the decision to donate or not be made by family members. Other more technical conducts are also performed and must be learned and carried out in the best possible way to obtain maximum effectiveness of the actions implemented and desired by the health service and on those who depend on the transplanted organ.⁽¹⁾

The Federal Council of Medicine, through CFM Resolution No. 1480/97, establishes the criteria for brain death, being characterized by the irreversible interruption of respiratory and circulatory functions or the cessation of all brain functions including the brain stem, resulting from an irreversible process with the establishment of known cause and, indisputably verified, its clinical signs are irreversible, creative and apprehensive coma, with absence of supraspinatus motor activity and apnea, being confirmed by complementary clinical exams within intervals of time for each age group.⁽²⁾

Brain death is a process that begins with cerebral ischemia, presents initial clinical signs evidenced by systemic arterial hypertension, bradycardia and bradypnea, present in 25% of patients, indicating systemic failure resulting from poor cerebral perfusion, when the lesion increases vagal activity is interrupted, resulting in a short-lived adrenergic discharge, tachycardia, hypertension, hyperthermia and increased cardiac output, the intracranial pressure rises to the point that there may be herniation of the brain stem, completely blocking the arterial circulation which determines the clinical picture brain death.⁽³⁾

Among the main underlying diseases that can evolve to brain death are traumatic causes prevalent in men, cardiovascular, congenital or acquired diseases that lead to a rapid hospitalization leaving fa-

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The initial clinical changes in the brain death process can cause irreversible damage to the heart such as myocardial ischemic necrosis and arrhythmias, caused by vasoconstriction and increased blood pressure, after brain death there are changes in these parameters, vasodilation, drop in systemic blood pressure, hypovolaemia relative, being extremely harmful to the patient, if not treated correctly it can depress cardiac function with evolution to asystole.⁽⁴⁾

Every critical patient presents risks of infections, being no different in the potential donor, so measures must be taken to minimize such adverse events. Simple procedures such as hand washing and the use of personal protective equipment are recommended, since certain infections can make donation unfeasible. Therefore, the nurse needs to register and identify the initial signs of infection, inform the transplant team, follow a clinical protocol according to the institution, aiming at a quick intervention so that the donation process is not interrupted and does not cause damage to the recipients.⁽⁵⁾

Body temperature is one of the most important parameters in the potential donor, and it needs to be strictly controlled, since the brain-dead patient loses his hemodynamic abilities to control the temperature due to injury in the regulatory center. The patient becomes susceptible to losing heat to the environment, becomes unable to shiver to produce heat, this when associated with large infusions of unheated liquids, the temperature tends to drop sharply, and the nursing team needs to take measures that can minimize this situation, with the use of thermal blankets, heat the environment and the fan gases, infuse heated liquids, monitor the temperature to prevent damage resulting from hypothermia.⁽⁶⁾

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mily members facing a sudden situation where they are fragile to make decisions at that moment to the fate of your relative's organs. For this reason, psychological support and qualified listening by health professionals is essential.⁽¹⁾

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Patients who have chronic diseases or other comorbidities that compromise their quality of life have a chance to receive an organ and be cured. Transplants since their inception have helped to save thousands of patients, considering that a single potential donor can donate multiple organs benefiting several patients. Due to advances in new technologies, the organ acceptance index has increased, as well as the survival of transplant patients. But it is necessary to consider the conduct of the professionals who provide assistance to the patient as well as the family. From this perspective, the role of nursing comes in, which develops so many technical actions with patients as well as acquiring a fundamental role in the family context.⁽⁷⁾

In this study, the following questions were raised: were nurses prepared to provide assistance to potential organ donors? Does the assistance provided by nurses contribute significantly to the effectiveness of organ donation? Based on the assumption that good assistance increases the effectiveness of donations, this work is justified in knowing the role of the nurse professional in managing with the potential donor, previously identifying the clinical signs of brain death and which actions are appropriate in view of their hemodynamic changes.⁽⁸⁾

Thus, the relevance of this study in knowing the nursing conduct in maintaining the potential donor stands out, since this professional is directly responsible for the care of the critical patient for the continuous surveillance of the potential donor, acting so that no hemodynamic changes occur, nor cardiac arrest before the removal of the organs, so crucial in the viability of organs donated organs and in the quality of life of the recipient.

The theoretical knowledge and practical application that the professional has is essential for the feasibility of a good implementation of assistance. The level of preparation, whether acquired at the gym or even during healthcare practice, is de-

cisive in the objectivity and assertiveness of the actions. This fact is even more essential when it comes to organ donation, since the assistance is not only provided with the patient, but mainly with family members, a key part in the process.



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More than 40% of families refuse to donate a family member's organs. This finding may be linked to several factors, but the psychological approach associated with the professional's knowledge of the situation and the best approach method can be decisive. Responding to possible questions clearly is a strategic management and necessary for the family to make the most consistent decision possible.⁽⁹⁾

In this way, the objective of the study was to know the nursing conduct given to the potential organ donor in brain death in the scientific literature.

METHOD

This is a study carried out using the integrative literature review method. The

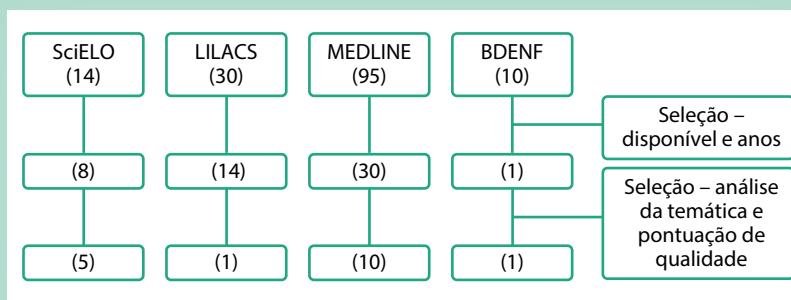
study now proposed used the model described by Mendes, Silveira and Galvão (10), which was divided into six stages: a) First stage: identification of the theme and selection of the hypothesis for the elaboration of the integrative review; b) Second stage: establishment of criteria for inclusion and exclusion of studies/sampling and literature search; c) Third stage: definition of the information to be extracted from the selected studies/categorization of the studies; d) Fourth stage: evaluation of the studies included in the integrative review; e) Fifth stage: interpretation of results; f) Sixth stage: presentation of the knowledge review/synthesis.

The first stage was constituted in the selection of the hypothesis through the following guiding questions: would nurses be prepared to assist the potential organ donor? Does the assistance provided by nurses contribute significantly to the effectiveness of organ donation?

The second stage took place through the establishment of inclusion and exclusion criteria in order to guide the search and selection of articles. The inclusion criteria were the full and free articles available, in any language, given the great scarcity of studies in the area, published between the years 2010 to 2016. The temporal choice was due to the fact that in 2010 there was the launch of specific guidelines for organ donors, which increased the number of studies and attention to the theme since, before the publication of these guidelines, the publication on the topic was scarce. Exclusion criteria were those with low methodological classification.

The databases chosen to search for the articles were: Medical Literature Analysis and Retrieval System Online (MEDLINE), Latin American and Caribbean Literature in Health Sciences (LILACS), Scientific Electronic Library Online (SciELO) and Data Base Nursing (BDENF). The health descriptors used: Obtenção de Tecidos e Órgãos; Enfermagem and Morte encefálica using the Boolean AND operator.

The third stage consisted of extracting

Figure I: Study search flowchart

Source: Prepared by the author

Table I: Electronic distribution and location of studies

Característica do estudo	Número encontrado	%
Inglês	12	70,5
Português	5	29,5
MEDLINE	10	58,7
SCIELO	5	29,5
LILACS	1	5,9
BDENF	1	5,9
TOTAL	17	100

Source: Prepared by the author

author and year information, objective, outcome, nursing conduct, methodological quality of the study using the article analysis tool proposed by Keynes (11) and level of evidence. The fourth stage took place through the classification of the evidence level of the articles, proposed by Pompeo, Rossi and Galvão (12), level of better quality of evidence. The fifth stage, occurred through the interpretations of the articles and synthesis of the results, and the sixth stage, an article was prepared with the purpose of disseminating the results obtained.

RESULTS

149 articles were found, of which 17 met the established criteria and were included in this review. The figure below illustrates the methodological steps to arrive at the articles that were inserted.

The following table contains the quantitative information for the studies included in the review.

The following table contains some

Chart I: study characteristics

Artigo	Objetivo	Desfecho	Condutas de enfermagem	Qualidade metodológica	Nível de evidência
13	Analisar os fatores relacionados à estrutura, ao processo e resultados da doação de órgãos e tecidos para transplantes	Possivelmente, a estrutura e o processo determinaram o resultado de que 72,3% dos potenciais doadores não efetivaram a doação	Registros adequados	8	VI
14	Avaliar o nível de conhecimento, consciência e atitudes de direito, teologia, enfermagem e estudantes de comunicação médicas, que estarão envolvidos nesta questão no futuro, em relação à morte cerebral e doação de órgãos	Uma melhor compreensão da doação de órgãos e conceitos pelos profissionais médicos, enfermeiros, legisladores, funcionários religiosos e de comunicação	Obter mais conhecimento da temática	8	VI
1	Verificar o conhecimento do enfermeiro no processo de doação de órgãos e tecidos para transplantes	Os enfermeiros apresentaram considerável conhecimento em relação ao processo de doação	Obter mais conhecimento da temática	6	VI
9	Verificar a influência da estrutura e processo na efetividade da doação de órgãos e tecidos	A adequação dos fatores relacionados à estrutura e processo está associada à efetividade da doação	Melhorar estrutura organizacional e humano	8	VI
4	Estudar as atitudes dos funcionários do hospital no sentido de doação e transplante de órgãos	A atual perda de confiança em doação e transplante de órgãos também afeta a atitude do pessoal médico	Efetivar uma atitude positiva	8	VI

15	Conhecer o significado da ação de enfermeiros no processo de doação para viabilizar órgãos e tecidos para transplante	O conhecimento da vivência dos enfermeiros nesse processo oferece subsídios aos profissionais de saúde	Mudar paradigmas, humanizar o processo de doação	10	VI
5	Identificar as necessidades educacionais no processo de doador de órgãos	O treinamento fornecido por colegas experientes e uma cultura que incentiva a discussão sobre aspectos do processo de doador pode desenvolver a competência profissional dos enfermeiros	Ter vasta experiência ou competência e formação em doação de órgãos	8	VI
16	Estudar as percepções de suas experiências de responsabilidades profissionais e aspectos organizacionais	A ambiguidade e várias percepções de diagnóstico de morte encefálica parece ser um aspecto crucial ao cuidar de um paciente com morte cerebral	A percepção das enfermeiras da UTI de (1) a sua responsabilidade profissional, (2) o papel da organização sobre doação de órgãos	8	VI
6	Analizar as dificuldades com o processo de doação de órgãos	Os principais resultados mostram que um terço desses hospitais de pequeno porte já teve dificuldades de comunicação com os parentes em luto sobre a doação	Obter uma comunicação eficiente	8	VI
17	Analizar a opinião dos enfermeiros sobre os cuidados de enfermagem ao paciente em morte encefálica e potencial doador de órgãos.	O cuidado de enfermagem ao potencial doador de órgãos configura-se como um processo complexo e que requer melhor qualificação e maturidade emocional, nem sempre presente.	Conduta assistencial	8	VI
18	Analizar as responsabilidades do enfermeiro no transplante de órgãos	O enfermeiro deve ter conhecimento dos princípios de boas práticas e ter recursos disponíveis para avaliar o mérito, riscos e questões sociais relacionadas aos transplantes.	Controle de qualidade do cuidado ministrado, colaboração entre os profissionais envolvidos, implementação de estratégias voltadas para a educação em saúde, realização de pesquisas oriundas de problemas vivenciados na prática clínica, e a organização e registro relacionados ao cuidado prestado	8	VI
8	Compreender as experiências e expectativas dos enfermeiros de unidades de terapia intensiva no cuidado ao doador de órgãos para transplantes e à sua família.	O cotidiano dos enfermeiros de terapia intensiva no cuidado às famílias e aos doadores de órgãos é permeado por obstáculos que interferem no processo de doação	Estabelecer empatia e a comunicação	10	VI
2	Apresentar um modelo teórico de organização do cuidado ao paciente em morte encefálica e o processo de doação de órgãos	O modelo apresentado configura-se como um referencial disponível para validação e aplicação pelos profissionais	Produção a partir de ciclos de planejamentos e criação de um ambiente propício para o sucesso da sua implementação	6	VI
3	Descrever a atuação do enfermeiro na assistência para manutenção fisiológica de um potencial doador de órgãos	É essencial que o enfermeiro tenha conhecimentos sobre as possíveis alterações fisiopatológicas resultantes da morte encefálica	Manutenção fisiológica do potencial doador de órgãos	8	VI
19	Analizar diretrizes para manutenção de múltiplos órgãos no potencial doador adulto falecido	A avaliação da função hepática, assim como o controle metabólico e a realização de sorologias virais são fundamentais para a orientação das equipes transplantadoras	Manutenção fisiológica do potencial doador de órgãos	8	VI

20	Identificar experiências e sentimentos sobre o processo de doação de órgãos, a partir da perspectiva de um parente de um doador de órgão em uma unidade de transplante	O estudo identificou a necessidade de prestar apoio social e emocional para as famílias que enfrentam a experiência do processo de doação de órgãos	Sensibilidade e apoio sócio-emocional	8	VI
7	Desvelar a percepção dos profissionais que atuam em Organizações de Procura de Órgãos sobre os fatores que facilitam e dificultam a entrevista familiar no processo de doação de órgãos e tecidos para transplante.	Os fatores que facilitam e dificultam a entrevista familiar estão relacionados ao local da entrevista, à assistência prestada ao potencial doador e aos familiares, aos esclarecimentos fornecidos à família e a manifestação do potencial doador em vida sobre a decisão quanto à doação de órgãos.	Assistência eficaz a família	10	VI

Source: elaborated by the author

information extracted from the studies included in this review.

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DISCUSSION

Nursing needs to maintain hemodynamic monitoring, with normal pressure, being preferably controlled in an invasive way, the infusion of heated crystalloids would be one of the measures for control, checking for signs of hypoflow and central venous pressure (CVP) measurements. Arrhythmias will be controlled by correcting other hemodynamic parameters.⁽¹⁹⁾

Knowledge and skill are essential for conducting the conduct normally implemented. It encompasses the assistance provided to the patient in the sector where intensive care is usually found, meeting physiological needs, in addition to participating and managing, executing and coordinating the nursing procedure. In this sense, the Systematization of Nursing Assistance must be applied for greater security of conducts that make donation possible.⁽³⁾

In addition, the theoretical-practical basis on brain death and its signs are of great importance not only in the integral care of the patient, but can better guide a frank conversation with family members in questions that may arise. An insecurity perceived by the family member can de-

De acordo com os efeitos fisiológicos que podem ocorrer em uma morte encefálica, é essencial que o profissional de enfermagem reconheça sinais de complicações de determinados órgãos.

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termine the acceptance or rejection of a potential donation.⁽⁸⁾

It can be noted that the professional's domain of the situation can be decisive in several aspects that can significantly influence the donation decision. The repercussions of the various approaches, whether in the physiological aspect with the patient or in the psychological and enlightening aspect that the professional adopts, is revealed in the percentage of success in an organ donation.⁽¹⁸⁾

According to the physiological effects that can occur in brain death, it is essential that the nursing professional recognizes signs of complications of certain organs. This fact makes it possible to adopt early management to correct and preserve the organ. For the nursing team, it is essential to recognize hemodynamic changes, an aspect that should not be subjugated.⁽¹⁷⁾

The family approach of potential donors is also part of the nursing conduct, as it is a multiprofessional approach. This point is one of the most critical aspects of the donation process, given the great obstacle posed by family members. Working with the family, respecting their limits, is essential for a successful transplantation.⁽⁶⁾

In most places, there is a specific management protocol for patients with brain death and potential donors. These

protocols, in addition to providing information about the tissue donation process itself, can also address routines related to families involving interviews, refusals and clarification about the processes.⁽⁴⁾

A more assertive approach depends on knowledge and professional or personal experiences. The more approach the professional has taken, the more he will be able to recognize early possible family difficulties that are normally evident, which can be overcome, tenuously, and enhance the possible donation.⁽¹³⁾

In this process, the behaviors adopted must be based on the principle of humanization of care, considering the various factors that involve the subjects and a dignified care. This process acquires even more importance with regard to

the family approach in which bioethical aspects can emerge.⁽¹⁵⁾

CONCLUSION

The nurse deals with feelings such as insecurity, fear, anguish, anger and the grieving process faced by family members, at this moment he needs practical experience to provide welcoming family members involved in the donation process, realizing feelings.

In many situations, professionals are completely unaware of the performance of these practices, which is seen as a major problem given the importance of conduct effectiveness. In this sense, it is essential that professionals are better oriented, which can be accomplished with more per-

manent health education actions for these professionals. This will allow better professional strategies in the face of this situation to be implemented as well as obtaining the best possible results.

It is of great importance that the nursing professional has systematized the actions that he will take in the event of a brain death case, mainly related to the conduct related to families, due to the fact that the decision to donate or not be made by family members. Other more technical conducts are also performed and must be learned and carried out in the best possible way to obtain maximum effectiveness of the actions implemented and desired by the health service and on those who depend on the transplanted organ. 

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