PERCEPTION OF NURSING ACADEMICS ABOUT BRAIN DEATH AND ORGAN DONATION

PERCEPÇÃO DE ACADÊMICOS DE ENFERMAGEM SOBRE MORTE ENCEFÁLICA E DOAÇÃO DE ÓRGÃOS

PERCEPCIÓN DE LOS ACADÉMICOS DE ENFERMERÍA SOBRE LA MUERTE ENCEFÁLICA Y LA DONACIÓN DE ÓRGANOS

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ABSTRACT
Objective: To know the action of organs of death in the course of. Method: Qualitative Nursing Study, Public Nursing Comments from a university in the south of the country. The interviews took place in 2019, were transcribed and revealed for analysis. Results: Bets participated. Three categories emerged: “Knowledge as a factor of (dis)interest”; which demonstrates the lack of approach to the subject in graduation; “Donation as a sign of empathy with family members and/or the person who will receive the organ” which deals with the interest in being a donor and “Anxieties as a (possible) professional responsible for the cases” which points to insecurity due to lack of knowledge. Conclusion: The answer is given by a positive relationship in relation to organs without respect to a knowledge of reference of acting as nurses, the answer is the donor in the relationship of involvement in reference.
Descriptors: Tissue and Organ Procurement; Brain Death. Nursing Care; Students, Nursing.

RESUMO
Objetivo: Conhecer as percepções de acadêmicos do curso de enfermagem acerca de morte encefálica e doação de órgãos. Método: Estudo descritivo, qualitativo, com acadêmicos de enfermagem de uma universidade pública do sul do país. As entrevistas aconteceram em 2019, foram transcritas e submetidas à análise de conteúdo. Resultados: Participaram trinta acadêmicos. Emergiram-se três categorias: “Conhecimento enquanto fator de (des)interesse”, que demonstra a falta de abordagem do tema na graduação; “Doação como sinal de empatia com familiares e/ou pessoa que receberá o órgão” que versa sobre o interesse em ser doador e “Ansiedades enquanto (possível) profissional responsável pelos casos” que aponta insegurança pela falta de conhecimento. Conclusão: Os acadêmicos apresentam uma visão positiva em relação à doação de órgãos sem ressalvas em relação a ser doador, entretanto, quando colocados no âmbito de atuação como enfermeiros, a resposta é pautada na insegurança relacionada à falta de conhecimento.
Descritores: Obtenção de Tecidos e Órgãos; Morte Encefálica; Cuidados de Enfermagem; Estudantes de Enfermagem.

RESUMEN
Objetivo: Conocer las percepciones de los estudiantes de enfermería sobre la muerte encefálica y la donación de órganos. Método: Estudio cualitativo descriptivo con estudiantes de enfermería de una universidad pública del sur del país. Las entrevistas se realizaron en 2019, fueron transcritas y sometidas a análisis de contenido. Resultados: Participaron 30 académicos. Emergieron tres categorías: “El conocimiento como factor de (des)interés” lo que demuestra la falta de abordaje del tema en la graduación; “La donación como muestra de empatía con los familiares y/o con la persona que va a recibir el órgano” que trata sobre el interés de ser donante y “Angustias como (posible) profesional responsable de los casos” que apunta a la inseguridad por falta de conocimiento. Conclusión: Los académicos tienen una visión positiva de la donación de órganos sin reservas sobre ser donante, sin embargo, cuando se ubican en el ámbito del trabajo como enfermeros, la respuesta se basa en la inseguridad relacionada con la falta de conocimiento.
Descripciones: Obtención de Tejidos y Órganos; Muerte Encefálica; Atención de Enfermería; Estudiantes de Enfermería.
INTRODUCTION

Brain Death (BD) is characterized by the complete and irreversible loss of brain function, defined by the cessation of cortical and brainstem activity. The main features observed in the first description of clinical and pathological findings that characterized BD are: deep coma, absence of breathing and electroencephalogram with an isoelectric pattern. In Brazil, 5,857 cases of BD were registered in 2021 and it is estimated that of this total, only 1,451 become effective donors, an alarming situation given that according to the Ministry of Health, 53,218 people are currently waiting in line for an organ or tissue.

The diagnosis of BD is guided by the protocol of the Federal Council of Medicine (CFM) established by Resolution No. 2,173 of 2017, which determines as a minimum criterion for the diagnosis of BD the performance of clinical examinations by two different and trained professionals, associated with an imaging examination. Among the imaging tests are cerebral angiography, which shows the absence of intracranial flow; electroencephalography, which shows the absence of cerebral electrical activity; transcranial Doppler, which detects the absence of intracranial blood flow; and finally, scintigraphy, which shows the absence of perfusion or brain metabolism. In addition, the apnea test is also included, which helps as a complementary test for diagnosing BD. In some countries, the complementary test is optional, but it is opted for in order to rule out confounding factors or to replace some stage of the test that cannot be carried out.

BD and organ and tissue transplantation are correlated, since in a situation of BD the patient can become a potential multiple organ donor, depending on their general clinical state. Thus, ensuring the functional maintenance of organ systems in the period between diagnosis and family approach becomes the main objective of the healthcare team, in order to prevent organ impairment and thus make donation impossible.

Actions related to reporting the death to the Death Search Organization and hemodynamic maintenance of the potential organ donor are the responsibility of the Intra-Hospital Commission for Organ and Tissue Donation for Transplants (CIHDOTT), associated with the professionals in the Intensive Care Unit (ICU), which includes: nursing assistants, administrative assistants, hospital hygiene assistants, nurses, physiotherapists, nutritionists and intensive care physicians, who are responsible for diagnosing and communicating BD to the family. This highlights the importance of...
interdisciplinarity and teamwork for the process to be effective.

In this context, the nurse stands out for presenting himself as one of the professionals working in CHDOTTs, as well as actively participating in the hemodynamic maintenance of the potential donor in view of his responsibility within the ICU, such as in the management of the pathophysiological repercussions of BD, in hemodynamic monitoring and in the provision of individualized care. To this end, the knowledge and skill of the professional nurse are essential in the care provided to the patient, that is, the theoretical-practical basis related to BD and its signs are extremely relevant in patient care and family approach, which can support the identification of the opportune moment for the interview with the family members of potential donors, as well as guidance regarding possible questions.

Although there is legislation that systematizes the BD diagnostic processes and family approach, family refusal ends up persisting as one of the main obstacles to carrying out the organ donation procedure. Therefore, training professional nurses from their training to discuss the aspects related to ME and organ donation can be considered a way to encourage progress in the discussion of the topic. Faced with this scenario, the guiding question was obtained: “How are brain death and organ donation perceived by nursing students?” And, to answer this question, the objective was to understand the perceptions of nursing students regarding BD and organ donation.

**METHOD**

This is a descriptive-exploratory study, with a qualitative approach, carried out in June 2019, at a public higher education institution, located in Paraná. Among the courses offered by the institution that make up the Health Sciences Center is Nursing, the focus of this investigation. It is noteworthy that the course is offered full-time, annually and lasts four years. From this perspective, nursing students regularly enrolled in the course regardless of the current year and who agreed to answer the interview voluntarily were invited to participate. As an exclusion criterion, students who were not taking leave of any type and who did not have an email address.

Data collection was carried out, firstly, with formal authorization from the Institution, then the nursing course coordination was requested to provide the electronic address of the students enrolled in the 2019 academic year. Contacts were made weekly, with the resending of the invitation letter and convenience approach until theoretical saturation of the speeches is obtained. As this was a qualitative
investigation, which aims to identify meanings and meanings attributed to the phenomenon, the number of participants was determined based on the saturation sampling framework in qualitative research, that is, when reports and concepts were frequently repeated, recruitment was stopped.\textsuperscript{10}

Invitation-type electronic correspondence was sent to all nursing students, together with the free and informed consent form. In the case of formal acceptance, guests were directed to a page with an online questionnaire based on the questions: “What do you understand by brain death?'”, “What are the facilities/difficulties you would face in assisting a patient with brain death in your professional practice?'”. “Was the topic covered during your training? In what way?'”, “Are you an organ donor? What are the factors that led to this decision?'”.

The reports were identified with the letter “E” for “Interviewee”, followed by the Arabic number indicating the order in which the responses were received (1, 2, 3...). The interviews were subjected to thematic content analysis, respecting the stages, namely: (1) Pre-analysis, in which skimming and familiarization with the participants' responses were carried out; (2) Exploration of the material, with identification of meaning cores and categorization of the material, according to similarities in the findings, and (3) Treatment and inference/interpretation of results, in order to answer the guiding research question and the objective of the study. These steps are described by Bardin.\textsuperscript{11} In this investigation, fifteen central ideas were initially identified in the participants' speeches, which generated four cores of meaning and resulted in three thematic categories, presented later in the results.

All ethical precepts were respected and the proposal for this investigation was approved by the ethics committee for research involving human beings at the State University of Paraná, under registration CAAE: 10665019.0.0000.9247 and opinion nº 3.313.140, on May 8, 2019.

\textbf{RESULTS AND DISCUSSION}

Thirty students participated in the study, five of whom were in their first year, four in their second year, ten in their third year and eleven in their fourth year. After a careful analysis of the academics' speeches in their responses to the forms, three thematic categories emerged: “Knowledge as a factor of (dis)interest in the topics of brain death and organ donation”; “Donation as a sign of empathy with family members and/or the person who will receive the organ” and finally, “Anxiety as a (possible) professional responsible for the cases”.

Knowledge as a factor of (dis)interest in the topics of brain death and organ donation

The participants' statements were about the interest factor presented by academics regarding the themes and the absence of content in the undergraduate course.

“So far (3rd year of nursing) the subject has not been addressed in a meaningful way and there is a lack of personal interest in the topic to pursue it individually and independently of the educational institution” E17;

“It’s not a very in-depth topic either in college or in the media in general” E22.

The description that the topic was not approached in a meaningful way to trigger genuine interest in the topic demonstrates the need to rethink pedagogical practices used in undergraduate studies. In this sense, practical learning allowed by the integration of teaching, service and community is established as an essential methodology for the relationship between practice and theory, helping students to develop skills and critical thinking, promoting the search for solutions to problems denoted in their experiences. According to reports from academics, it is assumed that the lack of approach to subjects in higher education becomes one of the main triggers for academic disinterest, and without basic information one is not aware of the importance of acting on issues, themes.

The learning process, regarding the execution of clinical practices, allows for a well-informed team prepared to face complex processes and decision-making, as well as allowing knowledge of the entire procedure in which they are participating. The professional who leaves graduation with a lack of information related to the topic, they experience difficulties in carrying out their role in direct assistance, in disseminating knowledge to the population and in the informative support that the families of potential donors need to receive. This harms not only the people to whom they provide care, but also their own construction as an individual with a caregiver role within the health system.

“I am in favor of organ donation and I am interested in becoming a donor, but I lack information about how to document that I am a donor” E26;

“I would be a donor, but I never tried to find out how the process really works. Perhaps the lack of information on the subject added to it” E16

“I don’t know for sure, I hadn’t stopped to think about this topic” E6.

“I don’t know for sure, I still didn’t have any experience or much information or explanations about cases like this” E9

Even though most academics have a positive response regarding organ donation, most are unaware of the legal procedures for carrying it out. In this sense, the absence of
information during graduation can be an opportunity to include the topic with the use of pedagogical methodologies for the development of ethical, critical, reflective and transformative activities, which go beyond technical training in training, based on the dialectic of action-reflection -action.¹⁴

Many responses show that the interviewees have not yet been exposed to the themes, and thus, the deficit in graduation is explicit, just as in society, since the interviewees, in addition to being academics, are citizens, thus generating doubts and fears regarding organ donation by the lack of information, consequently generating lack of knowledge and misunderstanding regarding the respective topic.

**Donation as a sign of empathy with family members and/or the person who will receive the organ**

The second thematic axis described ME as a factor that can save lives, since the organs will no longer be necessary for the individual, however, they can play an important role in resuming the functionality and complete health of other people.

“(...) Awareness that they will no longer be valid for me, but for other people in need” E1
“(...) Knowing the value of an organ for those who need it and not having superstitions” E2;
“I believe I will have no problem being a donor. The possibility of helping someone,”

when I am no longer able to live and use my organs, is a truly magnificent thing and would give a person more time to live well and enjoy the time they have left” E3;
“(…) Be responsible for saving the lives of those in need” E10.
“Good for others, if I can contribute in some way if one day something were to happen to me” E3.
“Donating an organ is donating life, making someone happy is the least you can do” E19.

Even with the lack of theoretical-scientific knowledge about the processes of ME and organ donation, academics present a very important characteristic for their training and citizenship, the humanized view. When proposing to work in nursing, faced with the communication of bad news and assistance in BD and/or organ donation, students establish the foundations of their future care relationships during their professional practice. Providing them with knowledge about the processes involving the topic can increase the possibility of more prepared professionals reaching the centers of care for these families and patients, which could reflect on the success and acceptance of organ donations.

It is important to highlight that not every family member is able to understand the act of donating organs or tissues. In addition to family refusal, there are factors related to the lack of knowledge of the potential donor and preservation of the integrity of the post-mortem body, fear regarding the time for releasing the body,
non-acceptance of ME as the end of life, religious beliefs and there are situations in which the family does not inform the reason.\textsuperscript{15}

The multidisciplinary team is responsible for clarifying the ethical, moral and legal phases of the process of donation and distribution of organs and tissues, focusing on objectivity and clarity, with respect and serenity, respecting the wishes of family members and the moment of loss and pain they are going through. Bringing family members closer to the patient is advisable and can be a key factor in the decision to donate organs, so that the family understands the diagnosis of BD and the concept of finitude and death.\textsuperscript{16}

The humanized view is one of the most appropriate instruments for establishing a relationship of trust between professional and patient, based on the true intention of caring, it is possible to develop an empathetic relationship, when the other is recognized.\textsuperscript{17} The factor of helping other lives was very recurrent in the answers, it demonstrates the solidarity and altruism of the academics. According to those interviewed, this action can save many lives as the organs are no longer needed by the potential donor. There is also the fact of empowerment of those involved, such as the family of the donor or recipient, since in the future they can replicate this action and consequently contribute to other lives. An effect that may result, among other factors, from the clarity of the professional responsible for transmitting information and maintaining effective communication between the team and family members.

\textbf{Anxieties as a (possible) professional responsible for cases}

The third and final thematic axis highlights the lack of theoretical support, which leads to insecurity in nursing students.

\textit{“It would be difficult[of acting in cases] because it is an extremely specific diagnosis, care for this patient must be humanized, respecting their beliefs, family and choices. Regardless of his condition of consciousness, he is a human being and must be treated with respect. Caring for the family is extremely important for nurses” E7.}

The empathetic look demonstrated by university students generates desire, given that the organ donation process is a complex procedure, surrounded by many risks. A review of recent literature with the aim of searching for studies on the topic of BD in adult patients pointed out that the process of diagnosis and care for patients with BD is thorough, complex and requires training.\textsuperscript{4} In this sense, universities should rethink their practices with the aim of to provide academics with the opportunity, curricular or otherwise, to envision the application of their concepts.
Another study, with the objective of understanding the management of nursing care for patients with brain death from the perspective of nurses working in the organ donation and transplantation process, found difficulties in professional performance related to the physical structure, limited human and material resources, as well as, the lack of qualification of the professionals involved, with a lack of training that makes the integration of multidisciplinary actions difficult.\textsuperscript{18} The professional nurse is responsible for several elements regarding the care of patients with ME and the interaction and reception of the patient's family. According to reports from professionals, training is the main means for excellence in this provision of services and the factors considered as hindering were issues of emotional and physical overload, inadequacy in the sizing of human resources in the ICU, lack of technical and emotional preparation to deal with the ME situation and the duality of being a nurse, as a person and professional.\textsuperscript{19}

"I don’t have enough theoretical and practical support to provide assistance" E15
"I would have difficulties with the knowledge I currently have" E16;
"I would have difficulty helping with the diagnosis, because despite having already seen how the diagnosis is made, I thought the information was very vague" E26.

The interviewees' reflection on the topic is undeniable, which results in the issue of the complexity of organ transplantation and the lack of introduction of the topic during the academic period, causing newly graduated nurses to have many insecurities and fears in their work. It should be noted that this challenge was highlighted in a previous study that aimed to understand the perception of the CIHDOTT team about their work process and highlighted challenges such as doctors' lack of knowledge about the donation process, identification of potential donors and their hemodynamic maintenance\textsuperscript{6}, which suggests that the topic also deserves to be investigated in other undergraduate courses in the health area.

Organ transplantation is divided into stages, starting with the identification and notification of the Potential Donor (PD), followed by the evaluation and maintenance of hemodynamic parameters, confirmation of the diagnosis of BD, family interview, documentation of BD, logistical aspects, removal and distribution of organs and tissues, transplantation and monitoring of results.\textsuperscript{4} Understanding the chain of activities and actions that must be carried out since graduation can contribute to self-confidence in dealing with these situations in the professional's daily life.
After reflective analysis of the interviewees' responses, guidelines related to the need to introduce the theme into the curricular structure of the nursing course are exposed, as the lack of knowledge generates anxiety in the academic/future professional and insecurity in acting, due to the lack of knowledge about the correct execution of auxiliary procedures.

FINAL CONSIDERATIONS

Academics present a positive view regarding organ donation without reservations regarding being a donor, however, when placed in the scope of work as nurses, the response is based on insecurity related to the lack of knowledge and interest regarding the processes that involve organ donation. Brain death.

In the context of ME and organ donation, it is essential for the success of all care that the nursing professional is adequately prepared to welcome family members and resolve all their doubts, which is why it is essential that they have the necessary knowledge about the entire process involving the subject, as it may come across adverse situations of the most varied natures, as well as mystical beliefs rooted in the family structure, which must be clarified with all the necessary scientific basis and in the most empathetic and honest way possible.

REFERENCES

