PERCEPTIONS AND EXPERIENCES OF NURSING WORKERS ABOUT PATIENT CARE IN BRAIN DEATH

PERCEPÇÕES E EXPERIÊNCIAS DE TRABALHADORES DE ENFERMAGEM SOBRE O CUIDADO AO PACIENTE EM MORTE ENCEFÁLICA

LAS PERCEPCIONES Y EXPERIENCIAS DE LOS TRABAJADORES DE ENFERMERÍA SOBRE EL CUIDADO DEL PACIENTE EN MUERTE ENCEFÁLICA

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Objective: to know the perceptions and experiences of nurse practitioners working in intensive care about the care of patients with known or suspected diagnosis of brain death. Method: qualitative, exploratory-descriptive study, performed with 19 nursing professionals from a University Hospital in the countryside of the state of Rio Grande do Sul, Brazil, by means of interviews and sociodemographic questionnaire. Results: the care with the patient in brain death is permeated by problems relating to the emotional distress and complexity. Furthermore, the difficulties to approach the potential donor’s family stand out, as well as the lack of qualification and training required for the care. Conclusion: the nursing care with the patient in brain death is permeated by numerous difficulties and coping, resulting in the need for professional qualification and psychological support for workers.


Objetivo: conhecer as percepções e experiências dos trabalhadores de enfermagem atuantes em terapia intensiva acerca do cuidado de pacientes com suspeita ou diagnóstico de morte encefálica. Método: pesquisa de abordagem qualitativa, de caráter exploratório-descritivo, realizada com 19 profissionais de enfermagem de um Hospital Universitário no interior do estado do Rio Grande do Sul, Brasil, por meio de entrevista semiestruturada e questionário sociodemográfico. Resultados: o cuidado com paciente em morte encefálica está permeado por problemáticas relativas ao desgaste emocional e por complexidade. Além disso, destacam-se as dificuldades na abordagem da família do potencial doador, bem como a falta de qualificação e preparo requeridos para o cuidado. Conclusão: o cuidado de enfermagem para com o paciente em morte encefálica está permeado por inúmeras dificuldades e enfrentamentos, resultando na necessidade de qualificação profissional e apoio psicológico para os trabalhadores.

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Introduction

The concept of death has evolved over time. Initially, it was defined as termination of heartbeats, however, with technological advance, the definition of death changed, verifying that a deceased individual could keep some vital signs when connected to devices and deprived of brain function. Thus, these advances allowed for the redefinition of a new concept: the brain death\(^{(1,2)}\).

The evolution of the concept of brain death was essential for the donation of organs from a deceased patient to occur, because it allows for maintaining vital functions until the organs are removed from the donor. For this reason, the brain death must be diagnosed by means of legal and pre-defined criteria\(^{(1,3)}\). When timely diagnosed, it enables the procurement of organs, favoring the transplant, which constitutes the only therapeutic alternative against various diseases that cause failure or insufficiency of organs or tissues\(^{(2)}\).

In Brazil, the brain death is regulated by Resolution n. 2.173/17, of the Federal Medical Association (FMA)\(^{(4)}\), and should be diagnosed through clinical and complementary tests in variable time intervals. Brain death may be defined by apnea, absence of brainstem reflexes (midbrain,pons and medulla oblongata), appetitive coma and irreversible loss of the brain functions (encephalon and brainstem)\(^{(2-4)}\). For this purpose, the diagnosis requires evaluation and correct and thorough identification. All health professionals have a fundamental role in this process, which, if well played, can substantially increase the donations of organs and tissues for transplant\(^{(5)}\).

In the context of Intensive Care Unit (ICU), the work of the nursing team with patients with brain death is more intense. In this environment, the patient usually has the confirmation of diagnosis and undergoes rigorous evaluation of clinical criteria, making him/her a potential organ donor\(^{(5,6)}\).

In this sector, there stands out the importance of the role of the nursing team, mainly in the strict maintenance of vital functions of the potential donor. To this end, this team needs to have qualified scientific and technical knowledge about the whole process of care with the patient in brain death, because the appropriate conservation directly influences the viability of organs and tissues for donation\(^{(1,6,8)}\). The complexity of care to this patient, however, goes beyond the need for strict monitoring of the biological aspects, also involving the potential donor’s family and the possible donation\(^{(8)}\).

In the year 2018, the rate of effective donors increased only 2.4% compared to the previous year, being 5.5% below the expected rate. Moreover, the growth rate of transplant of organs with deceased donor was only 0.7%, which shows an increase in the rate of non-utilization
of the organs of deceased donors. In relation to the rate of non-donation by deceased donors, 25% of cases occur by family refusal\(^9\). Therefore, there is need for professional improvement on the subject, in order to improve the national panorama of organ transplants, the early recognition and appropriate maintenance of potential organ donors.

The nursing workers who work in intensive therapy need to know the process of suspicion and diagnosis of brain death and its impact for future donations. Nevertheless, the studies on brain death are more focused on the process of brain death itself, not addressing specifically the aspects related to the work of the nursing professional that is continuously performing the care\(^6\). Once this theme is recent and still little explored, including during the academic training\(^10\), many workers may have difficulties conducting the care process, especially because it is a theme that involves emotional issues.

Researches\(^6,11\) indicate that the different perceptions of nurses regarding the care with the patient in suspected or diagnosed brain death may end up affecting the care process and interfere with the possibilities for the patient to become an effective donor. The objective of this study was to know the perceptions and experiences of nurse practitioners working in intensive care about the care with patients with known or suspected diagnosis of brain death.

**Method**

This is a qualitative, exploratory-descriptive research. The study was developed at an adult ICU of a University Hospital (UH) in Southern Brazil, which has 10 beds and meets clinical and surgical patients, with different pathological conditions and aged over 18 years.

The study participants were nursing workers (nurses and nursing technicians). The inclusion criterion was having at least one year of activity in the unit. The exclusion criterion was being on vacation or any type of leave in the period of data production. The participants were selected by means of a draw based on a list provided by the institution, in order to prevent bias in the research and to ensure the randomness of selected professionals. The proportionality between the different professional categories (nurse and nursing technicians) and the work shifts was considered. The researcher had a prior bond with the team, once her graduation internship occurred in the unit.

Data production was performed by means of a semi-structured interview, based on previously constructed guide, containing questions related to the study object and based on the literature. Ten open questions were prepared, in order to enable the professional to enunciate his/her perceptions and experiences in the care with patients with known or suspected diagnosis of brain death, such as: Have you already taken care of patients with known or suspected diagnosis of brain death? What did it mean to you? How do you feel when caring for a patient with suspected or diagnosed brain death? How do you perceive the care with the patient with suspected or diagnosed brain death in the ICU?

A form to collect sociodemographic and professional data was also used. Before the collection period, three interviews were conducted to assess the data collection instrument and to familiarize the interviewer, a nursing graduate student previously qualified. Nineteen nurse practitioners were interviewed during July and August 2016. There was no refusal to participate in the study. The final number of participants was determined by the need for information and quality of the produced data, after reaching the recurrence and complementarity of information about the study object\(^12\).

The participants were personally approached, after draws, with informal invitation to participate in the study. The interviews were carried out after the draftee's acceptance, during the work shift, in a meeting room of the sector, by reading and signing the Informed Consent Form (ICF). In order to preserve the participants' privacy, only the researcher and the interviewee remained in the room. The interviews lasted an average of 20 minutes.
The interviews were recorded with a digital device (MP4 player) and later transcribed by the researcher and identified by sequential cardinal numbers, according to the order of execution and the professional category of each participant (N1, N2, N3, NT1, NT2, NT3...). The data were not returned to the interviewees before the completion of the analysis.

The analysis of results followed the process and the steps of the content analysis proposed by Laurence Bardin. This type of analysis is composed of three stages: pre-analysis, which is the reading of the material, knowing its structure, followed by the establishment of the Corpus, considering the comprehensiveness, representativeness, homogeneity and relevance; the second stage consists of the in-depth reading of the analyzed material, in order to find categories for subsequent classification and aggregation of data; the third stage is the treatment of the results and data interpretation.

The present study complied with the provisions of Resolution n. 466 of 12 December 2012, of the National Health Council. It was submitted to the Research Ethics Committee of the Federal University of Santa Maria, obtaining approval n. 1.670.591. The study followed the Guidelines of the Consolidated Criteria for Reports of Qualitative Research (COREQ).

Results

Nineteen 19 nursing workers were interviewed, among them, 6 nurses (31.6%) and 13 nursing technicians (68.4%). Of the total, 14 (73.7%) participants were female and 5 (26.3%), male. The ages ranged between 25 and 56 years. The time working in the institution varied from 1 to 22 years, and the time of work in the unit ranged from 1 to 21 years.

After analysis of the results, the following category emerged: “The care with patient with suspected or diagnosed brain death: implications for nurse practitioners”, which is subdivided into three subcategories, as described below.

Difficulties providing care to patients with suspected or diagnosed brain death

When talking about their experiences working with patients with diagnosed or suspected brain death, the participants reported the difficulties they face regarding death. In their discourses, expressions such as “uselessness” and “helplessness” emerged to describe the care with the patient in brain death, since this care is provided to a patient without possibility of life.

I don't feel comfortable because dealing with the disease, dealing with death is difficult for us [...]. In nursing, we graduate to care for people to stay alive, not to die. (N6).

Uselessness, I don't know, but it is strange to care for a patient that can wake up at any moment, leave, but not this type. (N7).

[...] it is tricky, because you know there is nothing to do. Your only job is to provide basic care, but that patient will not leave, his condition will not get better. Then, it is a situation of helplessness. (NT7).

The workers reported that most patients in brain death were young, which often resulted in a commotion among the professionals. On the other hand, some participants reported seeking an emotional distancing, to be able to deal with the emotional aspects involving this care, after the confirmation of brain death, as can be observed in the following statements:

I think of the situation of the person there, even more when that person is young, which is usually trauma, something like that. I personally get more emotive, I keep questioning life, everything, you know? [...] I keep thinking you could be in his place. (NT8).

We have to be very reasonable, we can't let emotion carry us away. (NT12).

For me, it is normal, because we tend to acquire this barrier to deal a bit with the feelings, not to become too much attached to them. It's not like you are insensitive, but you learn to create this barrier, and you will learn to work this issue, which is a person, of whom you will take care normally, the only difference is that you know that there is no longer life. (NT6).

Some statements demonstrated that workers still had difficulties to understand and/or accept the diagnosis of brain death. This doubt ended up mobilizing feelings, given the contradiction of permanent death condition in a body that showed signs of life: respiratory movements
(even if artificially), blood pressure, pulse, heat, among others. In relation to this aspect, the following statements appeared:

Well, when I speak of brain death, I think: “My God, is it really the entire brain? Is it really dead?” Because we know the encephalon is dead, but we have the mechanical ventilation that is running, the heart is beating, everything is feasible[,] but the medicine shows us there is no more movement of synapses, there is nothing. It is a dead brain, which won't speak anymore, which is only waiting to die. I feel sad, I think it's all very sad. (N6).

It is strange to take care of a body that you know is dead, but, at the same time, you see the person there, who seems to be sleeping. (NT13).

The participants' statements indicated that, many times, there was a great concern with the care with patients in brain death due to likely organ donation. This can be noticed in the following report, in which the professional's focus changes from a patient with possible diagnosis of death to another patient awaiting organ transplant, to preserve the organs, in case the donation is confirmed. Furthermore, the possibility to provide normal life to those who are vulnerable, awaiting organ transplants, can be identified as a motivating factor for professionals who understand the importance of organ donation in the care provided to the patient.

I am fussier, more careful, more present, especially depending on the preservation, if he is a donor. If not, he is already dead. (NT12).

That desire to donate the organs[,] so we provide the best care, with respect, that another patient will leave better quality of life or not. We provide the same care. (NT9).

As well as the assistance to the patient is essential, the interviewees also highlighted the importance of the family assistance. They also perceived this relation as a difficulty in the care in the ICU.

Difficulties caring for the family of the potential organ donor

For the participants, the nursing care with the patient hospitalized in the ICU was also focused on the family. Nonetheless, the professionals presented difficulties to deal with this family, due to the emotional impact caused by this possible diagnosis.

It also depends on how we get involved with the family, on how the family is opened [...] some [family members] break down and need us, and we even cry together. (N1).

I don’t mind taking care of a patient in brain death. I have problems taking care of the patient's family. So, I think they are different things [...] I realize there is a barrier between the family and the nursing [...] So, I miss this a lot... I miss being hospitable and welcoming. (N6).

Some reports indicate the need for a sensitive approach of the nursing team with the family, to assist the acceptance of brain death and the understanding of the possibility and the benefits of organ donation.

It’s often unexpected, it’s not a case of a patient who was already sick [...] So, it’s a traumatic thing not only for the… obviously, for the patient, but also for the family. And that expectation of a confirmed brain death, how it will be accepted and if it will be part of the protocol of donation. If the person is able to donate, how family members will accept. And the experiences I have are all sad. Most family members do not understand and do not accept organ donation, when it is confirmed. (NT4).

What really marked me was a patient who was hospitalized here[,] the wife wanted to donate and his relatives did not. So, she managed, she was careful to convince the family to donate the organs [...] but it is a wonderful job, the way you approach people, I think is the most difficult there[,] you have to be very, very firmly in what you say not to hurt the people at that moment. (NT8).

On the other hand, the refusal of the family for donation and, consequently, the withdrawal of devices can also be an emotionally impactful moment for the nursing team, as seen in the following report:

There was a time a very young boy, and the family refused to donate. Hence, the family came there and the doctor said he was going to turn it off. Everything was right, then he turned off the ventilator, the family was also there. Of course seeing the mother crying was awful [...] only that picture remained. (NT11).

Qualification and training for the care with the patient in brain death

The need for qualification for the nursing work, in this context, manifests through the speech of an interviewee. The improvement of skills needs to cover both conceptual as clinical aspects related to brain death, such as organ donation, according to the following statements:

I think we have to seek qualification for the brain death, as well as for organ donation, for talking to the family, teamwork [...] I think the mourning should also be discussed, coping with brain death should be discussed; we should be prepared to make a better and qualified reception with the families, strengthen, because we know…

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there is [...] So, for this reason, we need to study, qualify ourselves, motivation and leadership. If we do not have such a team within an ICU, people will accommodate and will not make the necessary change. (N6).

[...] I see some colleagues saying “oh, I wonder he will come back? Won’t he come back?” (N5).

I miss knowledge [...] because there is a life that can save many others. (N7).

The nursing care with the patient in suspected or confirmed brain death requires cognitive and emotional skills, as well as scientific knowledge and a thorough understanding of the pathophysiology of this condition. Therefore, the care and the support for the family and the patient with suspected or diagnosed brain death are of extreme relevance, but constitute a source of emotional exhaustion for the team.

The expectation in relation to organ donation often becomes the focus that gives meaning to the care provided to the patient in brain death. The study participants reported that they tried to channel their feelings for the positive aspects, such as the lives that could be saved, and not for the lost life.

I think that brain death has two sides... thinking positively, we think of the potential donor. Then, at the same time, I think that I, at least, focus on the part of the potential donor, that will help other people in need. (N2).

But I think it’s exactly like this. One patient dies, but you know another is about to be born, as they say. (NT1).

To contribute to another life. Thinking that, if it wasn’t possible for that one, that it’s over for him, for another life, it can be a new start, a possibility. (N5).

For these professionals, this intensive care with the potential organ donor can become rewarding facing the possibility of organ donation. The work focuses on facilitating and ensuring the quality of organs for transplantation to those in need, to ensure life continuity.

If he is an organ donor, and we are doing everything we can, caring for, I think it’s very important, I feel very well. Oh, it means he will be helping other lives! (NT11).

When you have the possibility of organ donation, you do your job thinking of it. That person is there with possibility to donate organs and save others’ lives. (N4).

However, according to the participants, several factors interfere negatively in patient care. The process of organ donation, sometimes consuming, eventually leads to the family refusal, frustrating and demotivating some professionals, as shown by the following statements:

I think of that organ donation thing, which will help other people. But the process is still very outdated. There is too much bureaucracy in it. Of course I know it’s the procedure. (NT11).

Oh, sometimes it delays. If it is raining they [the team of organ removal] will not come; if it’s late in the evening, the airplane will not land. Everything has already happened. The problem is outside here, which is complicated... (NT11).

Most families give up because of the process. (N2).

The workers end up creating the hope of organ donation, thinking of the people awaiting, who need a new organ to recover their life expectancy and quality of life. Nevertheless, they face frustrations, as shown in the following statements:

That desire to donate the organs, and we have many expectations, but often frustrated, because, in the very end, the family decides not to donate. So, you keep caring for the organs, with those solutions to keep them in good condition, and, in the end, the family refuses. Then, it is quite frustrating. (NT9).

It is very frustrating when it doesn’t happen or when the family gives up, or when the family already refuses. And this patient dies. They usually are young patients. (N2).

In this way, the care with the patient in brain death is complex and can awaken ambiguous reactions in workers, whether frustration for the lost life, or hope for the possibility to save other lives through organ donation. The results showed that the nursing professionals saw this process beyond death and dying, but as a way of renewing other lives.

Discussion

The analysis of the statements allowed for realizing that the issues involving death, especially subjective issues, are among the greatest difficulties experienced by nursing workers, because their training has been geared to save lives and prevent death based on scientific and technical knowledge. Nonetheless, when facing life terminality, there appears the feeling of helplessness and becomes evident the
lack of training of these professionals to deal with the losses\(^{(2,16)}\).

A study\(^{(6)}\) identified that the difficulty in caring for the patient in brain death results from the understanding that a demonstrably deceased patient requires a high complexity of care from health professionals. The workers, when asked about their experience in the process, reported “mixed feelings” and stated that the emotions appeared implicit throughout the care process.

A suspected or diagnosed brain death leads to a mobilization of emotions, feelings, and beliefs of all involved. This occurs with friends, family and even with the professionals who work in the health care process. These professionals, who live everyday with such a situation, must receive a specific qualification, since this clinical condition is becoming increasingly common, due to the increased morbidity and mortality from external causes (car accidents, victims of aggression, among others)\(^{(17)}\). The emotion and the difficulty to accept this process were perceived in the statements of the nursing professionals during the development of this study.

A research\(^{(20)}\) reveals that health professionals report feeling of sadness from the loss of a young patient, by the fact of being an unexpected death, a barrier that breaks a long life ahead. Epidemiological data\(^{(18)}\) show that the profile of patients that die from external causes is mostly of young adults, which corroborates the statements of the professionals interviewed.

A conflicting issue for the nurses interviewed in three other studies\(^{(6,17,19)}\) related to understanding and accepting the diagnosis of brain death. The results of this study indicate that the participants also demonstrated this feeling of ambiguity when dealing with the prospect of death. When it comes to a patient with stable vital signs, it also refers to a living body. Even if there is a diagnosis of death, the care needs to be as effective as with an alive patient.

The literature corroborates the importance of specific qualification on brain death to the nursing team of intensive therapy, evidenced in the interviewees’ statements. The role of nursing regarding a patient in brain death in the ICU is of great importance, and the nursing team must have scientific knowledge in relation to the pathophysiology of brain death, considering its important role in monitoring the patient, making the process of donation of organs possible\(^{(18,20)}\). There also stands out the need for the nursing staff’s knowledge on the steps that permeate this process, so that strategies can be built to help it happen more efficiently\(^{(20)}\).

Some authors describe the lack of knowledge of professionals as one of the reasons not to donate organs. The lack of knowledge about the pathophysiology of brain death causes many professionals not to feel safe to deal with family members. Researches\(^{(2,21)}\) indicate that there are a few trainings on the topic. In addition, the educational institutions do not offer this type of deepening during graduation. Professional education is the key to the possibility of success in the process of donations and transplants, thus reaffirming the importance of training, lectures and courses as fundamental to maximize the care\(^{(6)}\).

Besides the professional qualification, the nurse must be prepared for the proper reception of the family of patients who are in the process of death and dying. For some authors\(^{(6,21)}\), nurses should be aware that providing care to the family requires knowledge beyond technical knowledge. This care implies the sharing of knowledge, needs, possibilities, anguish and inventions, especially the care with the family facing pain and suffering.

Even facing the disease and on the verge of death, family members of patients are never, in fact, prepared for the loss. Therefore, health professionals become pillars for the family, and are considered fundamental in this process\(^{(22)}\). This indicates the need for strengthening the reception of family members of patients hospitalized in the ICU, especially for those who under suspected or diagnosed brain death.

Nursing is a professional field whose professionals work in the direct care with the patient, within the 24 hours of the day. For this reason, these professionals are more present...
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and feel connected to the family of the potential donor. This proximity can make this team more involved with the emotional aspects of family members during the process of loss of a relative. Thus, the team needs knowledge in order to generate safety for the family that suffers and, at the same time, has doubts because regarding what the process of brain death really is\(^2\),\(^{21}\).

Similarly to what was observed in this study, a research\(^23\) performed with nursing professionals showed that they believed that the refusal of the family ended up hindering the accomplishment of organ donation. Data from the Brazilian Association of Organ Transplant\(^9\) show that 42% of the donations that did not occur resulted from family refusal, confirming the importance of this aspect in the viability of donation in Brazil. Therefore, there is need to provide information regarding the donation of organs to society.

The transplant process has two essential factors: the first is the qualification of the health team; and the second, the community education. Permanent education is fundamental, as it contributes to improving the quality of the care provided to potential donors; professionals act nimbly in the process of necessary tests for the diagnosis of brain death and can improve the approach to the family, directly influencing the effectuation of donation\(^23\).

According to Resolution n. 292/2004 of the Federal Nursing Council\(^24\), the role of the intensivist nurse practitioner, who has a legal basis for the care, is to be responsible for planning, coordinating, implementing and evaluating the actions of the nursing team performed with the patient under suspected or diagnosed brain death, who can be potential donor of organs and tissues. Besides the clarification for society, health professionals need to have greater knowledge about the theme, since they are one of the links crucial for the success or failure of programs of transplants.

The process of loss of the patient causes suffering, but the prospect of organ donation provides comfort, because, although a life is lost, those organs may save other people. When the care with the potential donor is perceived as a means to save other lives, it becomes rewarding. Thus, the process of organ donation, despite being a stressful job, and sometimes bureaucratic and time-consuming, constitutes a positive aspect when related to brain death\(^2,6,17\).

The study presents limitations due to the qualitative approach of the local reality, which does not allow for the generalization of the results. However, the study contributes to the knowledge about the perception of nurses in the care with patients with known or suspected diagnosis of brain death in the ICU.

Conclusion

The results show that the care of the nursing staff with the patient in brain death is permeated by implications related to difficulties, bearing in mind that it is psychologically exhausting, in addition to being a patient that requires continuous monitoring and constant attention. Furthermore, it is possible to highlight the concern, the effort and care of nursing workers to make the organs of the patient with suspected or diagnosed brain death viable, who may become a future donor.

The workers’ reports show the existence of contradictions of a relation of care that involves coping with death, but, on the other hand, the possibility of promoting life through organ donation. Moreover, the family refusal was highlighted as an important factor in the inability to donate organs. In addition, the need of trained professionals to perform this bond stands out, since the care with the family can also be used to improve the knowledge of the population about the theme.

Therefore, the nursing team has a fundamental role in the provision of care for a patient with suspected or diagnosed brain death, in the approach to the family member, and in health education, which may facilitate and increase the number of organ donations in Brazil. Furthermore, educational activities should be implemented for these professionals about the theme and the possibility of insertion of psychological support.
to the worker regarding the ambiguity of the process of care with this type of patient. The theme should also be addressed in academic training, aiming to prepare professionals to implement activities related to it. Moreover, there stands out the importance of developing other similar studies in different realities to deepen the knowledge in the area. Finally, there were no conflicts of interest to execute this work.

Collaborations:

1 – conception, design, analysis and interpretation of data: Mariana Pellegrini Cesar and Quezia Boeira da Cunha;

2 – writing of the article and relevant critical review of the intellectual content: Mariana Pellegrini Cesar, Quezia Boeira da Cunha, Camila Pinno, Nara Marilene Oliveira Girardon-Perlini, Cíntia Lovato Flores and Silviamar Camponogara;

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References


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