

## **CARE FOR POTENTIAL BRAIN- DEAD ORGAN DONORS IN AN ADULT EMERGENCY ROOM: A CONVERGENT CARE PERSPECTIVE**

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### **ABSTRACT**

**Objective:** to investigate situations that interfere with health professionals' performance, in the identification and maintenance of potential brain-dead donors in an Adult Emergency Care Unit, and to indicate actions, from the health team's perception, that can promote care for these patients.

**Method:** this is a qualitative, convergent care research, carried out with health professionals from an adult emergency unit, a large public teaching hospital located in southern Brazil. Data were collected between February 2020 and January 2021 through structured participant observation, semi-structured interview and convergence group. Data analysis was performed according to the stages of gathering, synthesis, theorization and transfer.

**Results:** based on data analysis, the difficulties in caring for brain-dead persons, lack of information, inadequate structure and difficulties in the work process were identified as situations that interfere with health professionals' performance in relation to brain-dead potential donors. Actions were signaled to promote care for these people through continuing education activities on the subject, dissemination of information, construction of technologies/protocols, organization of infrastructure and the work process with support for professionals who assist these people.

**Conclusion:** it was evidenced that professional education, the organization of the donation process and systematized actions to improve the work are fundamental factors for the effective care for brain-dead potential organ donors.

**DESCRIPTORS:** Brain Death. Tissue and Organ Procurement. Nursing. Emergency Medical Services. Health Personnel.

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# ASSISTÊNCIA AO POTENCIAL DOADOR DE ÓRGÃOS EM MORTE ENCEFÁLICA EM PRONTO-SOCORRO ADULTO: PERSPECTIVA CONVERGENTE-ASSISTENCIAL

## RESUMO

**Objetivo:** investigar situações que interferem na atuação dos profissionais da saúde, na identificação e manutenção do potencial doador em morte encefálica em uma unidade de pronto-socorro adulto e sinalizar ações, na percepção da equipe de saúde, que possam promover a assistência a esses pacientes.

**Método:** pesquisa qualitativa, convergente-assistencial, realizada com profissionais de saúde de uma unidade de pronto-socorro adulto, de um hospital-escola público e de grande porte localizado no Sul do Brasil. Os dados foram coletados entre fevereiro de 2020 e janeiro de 2021 por meio de observação estruturada participante, entrevista semiestruturada e grupo de convergência. A análise dos dados foi realizada de acordo com as etapas: apreensão, síntese, teorização e transferência.

**Resultados:** a partir da análise dos dados identificaram-se como situações que interferem na atuação dos profissionais da saúde frente ao potencial doador em morte encefálica as dificuldades na assistência à pessoa em morte encefálica, a falta de informação, estrutura inadequada e as dificuldades no processo de trabalho. Houve sinalização de ações para promover a assistência a essas pessoas por meio de atividades de educação permanente sobre o tema, divulgação de informações, construção de tecnologias/protocolos, organização da infraestrutura e do processo de trabalho com suporte aos profissionais que atendem essas pessoas.

**Conclusão:** evidenciou-se que a educação profissional, a organização do processo de doação e ações sistematizadas para aperfeiçoamento do trabalho são fatores fundamentais para a efetiva assistência ao potencial doador de órgãos em morte encefálica.

**DESCRITORES:** Morte encefálica. Obtenção de tecidos e órgãos. Enfermagem. Serviços médicos de emergência. Pessoal de saúde.

# ASISTENCIA A POTENCIALES DONANTES DE ÓRGANOS EN MUERTE ENCEFÁLICA EN UN SERVICIO DE URGENCIAS DE ADULTOS: UNA PERSPECTIVA DE ASISTENCIA CONVERGENTE

## RESUMEN

**Objetivo:** investigar situaciones que interfieren en la actuación de los profesionales de la salud, en la identificación y mantenimiento de potenciales donantes en muerte encefálica en una unidad de emergencia de adultos y señalar acciones, en la percepción del equipo de salud, que puedan promover el cuidado de estos pacientes.

**Método:** Investigación cualitativa, de asistencia convergente, realizada con profesionales de la salud de una unidad de emergencia de adultos, de un gran hospital público de enseñanza ubicado en el sur de Brasil. Los datos fueron recolectados entre febrero de 2020 y enero de 2021 a través de observación participante estructurada, entrevista semiestructurada y grupo de convergencia. El análisis de los datos se realizó según las etapas: aprehensión, síntesis, teorización y transferencia.

**Resultados:** con base en el análisis de los datos, las dificultades en la asistencia a la persona con muerte encefálica, falta de información, estructura inadecuada y dificultades en el proceso de trabajo fueron identificadas como situaciones que interfieren en la actuación de los profesionales de la salud en relación al potencial donante en cerebro muerte. Se señalaron acciones para promover la asistencia a estas personas a través de actividades de educación continua en el tema, difusión de información, construcción de tecnologías/protocolos, organización de la infraestructura y del proceso de trabajo con apoyo a los profesionales que asisten a estas personas.

**Conclusión:** se evidenció que la educación profesional, la organización del proceso de donación y acciones sistematizadas para mejorar el trabajo son factores fundamentales para la asistencia eficaz al potencial donante de órganos en muerte encefálica.

**DESCRIPTORES:** Muerte Cerebral. Obtención de Tejidos y Órganos. Enfermería. Servicios Médicos de Urgencia. Personal de Salud.

## INTRODUCTION

Donation and transplantation of organs and other tissues constitute an important clinical solution for people suffering from organ failure. In different countries around the world, such as Brazil, public policies and social actions seek to encourage the donation and fundraising process. However, the reduced number of donors in relation to the demand for recipients, in addition to religious dilemmas, social inequalities and misinformation constitute barriers that reflect the complexity of this issue<sup>1</sup>.

Organ donation can occur from brain death (BD) diagnosis, which marks the proof of irreversible damage to the entire brain, including the brainstem. The identification protocols for this diagnosis are formalized based on a rigid set of medical procedures.<sup>2</sup> In Brazil, the opening of protocol for BD diagnosis is defined by clinical criteria and medical procedures that can determine the suspension of artificial therapeutic support<sup>3</sup>.

Organ donation is a complex process that requires the involvement of many health professionals. Once a patient has been diagnosed with BD, they become a potential donor (PD). In Brazil, the process that determines PD can occur in the Intensive Care Unit (ICU) or in other sectors of the hospital, such as emergency services, and it is the responsibility of care teams to maintain artificial therapeutic support in order to preserve viable organs and tissues for a period that allows the family to decide on the donation<sup>4</sup>. Technological advances developed in the health area have enabled diagnoses and care behaviors in the PD care process in BD; however, doubts regarding the clinical and ethical validity of current death determinations (including BD) demonstrate inadequate understanding of the subject, including by health professionals<sup>5</sup>.

In emergency services, PD care has shown failures in the necessary referrals for the donation process<sup>6</sup>, such as weaknesses related to the decision to interrupt artificial therapeutic support and limited knowledge about BD among the medical team<sup>7</sup>. These obstacles have negative repercussions on the PD identification and maintenance process, such as delay in opening the BD diagnostic protocol, non-notification of PD and hemodynamic instability<sup>8</sup>. Team technical unpreparedness in care as well as in providing information about BD diagnosis to family members are factors that favor the refusal to donate<sup>9</sup>.

There is a need to address this issue in Emergency Care Units (ECU) through research and continuing education actions, evidenced by the weaknesses described in the scientific literature regarding the health care provided to brain-dead PD in emergencies<sup>6-7</sup>.

Therefore, the relevance of this qualitative and participatory proposal is justified, which sought, together with health professionals from an Adult Emergency Care Unit (A-ECU), to establish actions that can support clinical practice related to brain-dead PD the identification and maintenance in this sector.

In this regard, this study aimed to investigate situations that interfere with health professionals' performance in identifying and maintaining brain-dead PD at A-ECU and signaling actions, in the health team's perception, that can promote care for these patients.

## METHODS

This study comprises convergent care research (CCR), which encompasses a participatory qualitative method and presupposes conducting an investigative practice in convergence with changes in health practice. The process of research and action on practice, based on the involvement and participation of the care field, makes it possible to achieve innovations and transformations in the context of practice, added to the investigative construction<sup>10</sup>.

It was carried out in an A-ECU of a large public teaching hospital, linked to a federal institution of higher education located in southern Brazil. Eight surgeons, nine clinical doctors, 24 nurses, 50 nursing technicians, two physiotherapists, one nutritionist, one psychologist and two social workers worked in the sector during the data collection period, totaling 93 health professionals. The last three professional categories did not work exclusively in the unit.

Professionals working in the sector for a period equal to or greater than six months, as it is considered to be the minimum period of coexistence and adaptation to the sector, were included. Those who were on vacation or leave of any kind during the data production period were not included. After inviting the 75 eligible professionals, six professionals did not accept to participate (claiming other activities and lack of time) and 43 professionals did not respond to the research invitation.

The research was conducted by a main researcher, a master's student in nursing, a member of the Intra-Hospital Commission for Donation of Organs and Tissues for Transplantation (CIHDOTT - *Comissão Intra-Hospitalar de Doação de Órgãos e Tecidos para Transplante*) at the researched institution and belonging to a research group. Three techniques were used for data production: participant structured observation; semi structured interview; and convergence group.

The observations constituted the initial moment of negotiation with participants and occurred in the morning, afternoon and night shifts, totaling 28 hours, and were recorded in a field diary. A semi-structured script was used as a guide, focused on the situations of involvement of health professionals with people in a possible situation of BD and PD (conducts, conducting the opening of diagnostic protocol, hindering factors and multidisciplinary interaction). The research field observation allowed the researcher to be closer to participants and record the greatest number of elements and impressions about the experiences carried out in the group, whose manifestations took place in a subjective and objective way. This moment aroused the interest of professionals about the difficulties and shortcomings of the organ donation process and to reflect on the behaviors.

For the interview, invitations were sent to all eligible via online message group. Upon acceptance, a time was scheduled according to participants' availability. The script for the semi-structured interview included the following items: socio-occupational characterization (age, education, profession, position held in the institution, time working in the institution and at A-ECU, work regime, option for organ donation, training on identifying and maintaining potential organ donors) and perception about BD and the organ and tissue donation process (What is it like for you to take care of a critically ill patient at A-ECU? What is your perception about BD and the organ donation process? How do you perceive the management of brain-dead patients at A-ECU? How do you act in the management of brain-dead patients? What factors interfere in the identification of BD at A-ECU?)

A pilot interview was carried out to ensure that the interview questions were adequate to explore situations that interfere with health professionals' work in identifying and maintaining brain-dead PD. This interview was not incorporated into the final analysis, being eliminated from the database, and the script, which did not require adjustments, was considered adequate to achieve the objectives.

The interviews began in July 2020, the height of the COVID-19 pandemic, and took place individually and online, through Google Meet (G Suite®), and were recorded after participants' consent. They lasted approximately 35.3 minutes, and the data were transcribed in full after the end of each one. This allowed data organization and analysis, determining its saturation in the 22<sup>nd</sup> interview, when there was no new information and redundancy was achieved<sup>11</sup>, ending data production with a satisfactory level of information. It is noteworthy that, at the end of each interview, the researcher reported a summary of the information and emphasized the invitation to participants to integrate the convergence groups.

The convergence groups took place after a preliminary analysis of the observations and interviews and the intention was to raise awareness of professionals in relation to the theme and carry out an educational action on the process of organ donation. It is a technique that allows the production of data from shared discussions and reflections on research and professional practice, with the intention of seeking group cohesion to propose innovations<sup>10</sup>. An invitation was sent to health professionals via an online message group and publicized through posters in the sector. This step was planned to instigate professionals to reflect on their care practices and build possible action strategies for the practice problems identified by them. It should be noted that some issues highlighted in the preliminary analysis of observations and interviews supported the planning of this stage.

Four meetings were held, with the fixed participation of some professionals present at the interview stage, and conducted by the main researcher, assisted by two previously trained research assistants, at undergraduate and graduate levels. Initially, there was the recognition stage, when participants identified themselves and understood the purpose of that space; revelation, when there was an understanding of the group's common experiences and the identification of problems to be solved; share, in which the exchange of experiences and experiences made it possible to make shared decisions; and rethink, already established professionals' involvement in the application of what was built in the collective space<sup>10</sup>.

The triggering of the problematization space took place from the questions: How is care practice at A-ECU with the possible brain-dead patient and/or PD? How are identification and handling usually done? How do you feel facing this challenge? What has been effective in this practice? What has not been so effective and why? Some group techniques enhanced this construction, such as the debate based on problem situations (fictitious clinical cases inspired by situations observed by the researcher at the data collection site), exhibition of informative and awareness-raising videos on the subject and the holding of a game called "Truth/Taboo", in which professionals were able to reframe truths and myths about BD and organ donation. In all, nine professionals participated in the convergence groups. The meetings lasted approximately 90 minutes. They were audio-recorded with participants' consent and transcribed in full, and this material was incorporated into the study corpus.

It should be noted that, in CCR, the researcher must also be involved in the transformation of care practice based on their relationship with the scenario<sup>10</sup>. Therefore, the researcher leveraged the group construction through discussions supported by legislation and updated scientific evidence on the subject. The convergent care process was achieved through the opening of a space for the construction of improvement plans by the participants, with the formation of agreements between them.

The data produced were recorded on portable file storage equipment and data analysis was performed according to the CCR analysis method, and involved four steps: gathering (characterized by material organization and comprehensive reading and data encoding process); synthesis (triggered from the decomposition of textual content and organization of categories and subcategories); theorization (in which interpretation takes place from the literature); and transfer (process of discussion and application of findings)<sup>10</sup>.

The results contain fragments of empirical material, in which participants are identified with codes referring to human body organs followed by ON ("observation notes"), IN ("interview notes") and GN ("group notes").

The ethical precepts for research with human beings were respected in accordance with Resolution nº 466/2012 and Resolution nº 510/2016 of the Brazilian National Health Council. The research was approved by the Research Ethics Committee of the institution, and the data are kept filed in an institutional room, owned by the research coordinator, thus respecting data confidentiality.

## RESULTS

Data production comprised structured observation with follow-up of three cases of PD. The interviews took place with 22 health professionals from the adult ECU, with the participation of nine (40.9%) nurses, eight (36.4%) nursing technicians, three (13.6%) doctors and two (9.1%) physiotherapists. The average age was 43.4 years, the average time working in the sector was 8.3 years and the majority (61.5%) reported the gender assigned at birth, female. There were six refusals to participate in the interview stage.

With the convergence group, four meetings were held, with the participation of nine health professionals, four (44.5%) nurses, four (44.5%) nursing technicians and one physiotherapist (11%). It should be noted that participants in the convergence group were mostly nursing professionals, and there was no participation of medical professionals in the meetings.

The results of data analysis were organized into categories: *Care challenges in the identification and maintenance of brain-dead potential donors*; *Multidisciplinary action plan for care practice in identifying potential donors and brain death: convergent care process*; and *Expandability of the action plan and the power of the process of transforming care practice*.

### **Care challenges in the identification and maintenance of brain-dead potential donors**

First, health professionals recognized the difficulties in the work process. In their testimonies, they reinforced that, despite the adversities, the team sought to meet these demands in the best possible way: *Our service is permeated by several day-to-day challenges, we work with all clinics, except obstetrics and pediatrics. The mind is always thinking about everything at the same time. [...] the team is wonderful. I think everyone gives as much as they can so that we can overcome the daily work proposals.* (Pancreas – GN)

However, the stages of data production through observation, interview and convergence group notes made it possible to perceive gaps and interferences that challenged professionals and, at times, caused limitations in their care practice. Chart 1 summarizes these findings.

### **Multidisciplinary action plan for care practice in identifying potential donors and brain death: convergent care process**

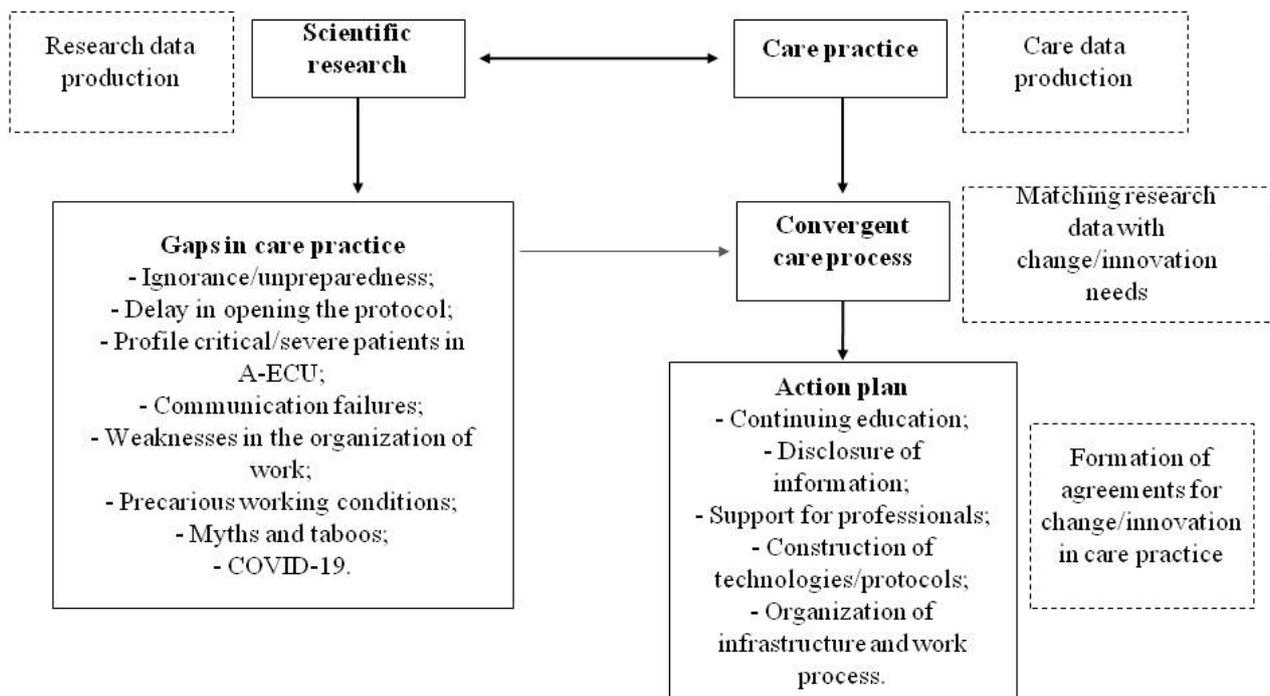
The research data (investigative practice) produced in this study enabled the identification of gaps in care practice. These gaps were identified by the participants, a process of understanding necessary for the meeting between scientific research and care practice to take place, an interface movement that structures the convergent care process.

This meeting made it possible for the convergence group to build an action plan (the result of its process of reflection and criticism on the A-ECU's reality). The main points that constituted the action plan were: professional education; disclosure of information; creation of technologies to facilitate the performance of health professionals; most appropriate location for prospective brain-dead donor at A-ECU; care for A-ECU professionals and to the relatives of the possible brain-dead donor. This process is summarized in Figure 1.

The group members expressed their desire to participate in permanent education actions. Courses on the subject were suggested with a view to clarifying doubts and focusing on professional practice, in dialoguing with the reality experienced at A-ECU: [...] *It could help if we had better preparation, some training. If professionals were more prepared to see this [PD] in critical patients [...]* (Kidney – IN); *Training to demystify the topic, as people are not aware of it. Everyone has to know how it is, how it works [...]* (Bladder – GN).

**Chart 1** - Care challenges in identification and maintenance of potential brain-dead donor by health professionals at A-ECU. Santa Maria/RS, Brazil, 2021.

<b>Challenges and interferences</b>	<b>Empirical material</b>
Teams' lack of knowledge or unpreparedness	<i>[...] many times we do not have enough basis to collect information [...] a very big weakness in relation to these maintenance protocols is lack of knowledge. I fell in love with this part that has weak knowledge regarding PD maintenance and, since people don't know how to identify PD, they also don't know what has to be done for its maintenance. (Lung – IN)</i>
Delay for the opening of BD protocol	<i>There have been situations where it was extended for a week. We saw that the patient had BD, another doctor saw and said no. Because it is an emergency room situation, because there is no specific care, sometimes that potential donor is lost because the procedures took time to occur. (Pancreas – IN)</i>
Critical/severe patients at A-ECU who should be in the ICU	<i>I perceive the fragility in relation to the care given to critical patients. Mainly because, in the Emergency Room, a culture was adopted that the critical patient should be here temporarily, that not all care should be done here. (Lung – IN)</i>
Failures in the communication process	The patient assessment and information recorded in the medical record are carried out by few professionals and, in some cases, there was disagreement between the information, generating doubts. [ON, 03/17/2021, late]
Weaknesses in the organization of the work process	<i>[...]we work, but it is based on the prescription. There is not something that we follow, a script [...]. (Heart valve - IN) [...] there is no protocol from the institution in the emergency. (Spleen – IN)</i>
Lack of uniformity of conduct and little medical availability	<i>[...]despite being a teaching hospital, there is no uniformity of guidance among preceptors [doctors], this changes a lot from one preceptor to another (Spleen – IN) [...] a routine team would be needed to really take care of this patient. Often, they are on-duty staff working in an emergency room, who also have to come and pay attention to this patient (Esophagus – IN)</i>
Lack of clinical rounds	<i>We don't have rounds for the multidisciplinary team to discuss what we found in patient assessment. It depends much more on the good will of the nursing team, the medical team, to meet in the corridors and at the bedside, questioning anything (Lung – IN)</i>
Precarious working conditions	<i>We are always overcrowded. So, the one that would need more care, more intensive care, we can't do that with quality. (Blood vessel – IN)</i>
Myths or taboos about BD or organ donation	<i>[...] there is still a lot of belief, many things that are not true about organ donation in the population, and even in health professionals. They think he didn't die... That story we always hear... I believe that this can greatly influence protocol progress. (Pancreas – IN)</i>
Negative effects of the COVID-19 pandemic	<i>We have a very bad experience of the pandemic. The number of donors has decreased, the difficulty of obtaining funding has increased, it has become slower, everything has taken longer [...] (Pancreas – GN)</i>



**Figure 1** – Convergent care process: formation of action plan based on gaps in professional practice related to identification and maintenance of potential brain-dead donor by health professionals in the Adult Emergency Unit. Santa Maria/Rio Grande do Sul, Brazil.

Participants considered that institutional disclosure on the subject could be useful for health professionals and also for family members, in order to mitigate the gaps in understanding about BD and organ donation. *The hospital lacks this educational process that could be audiovisual. There is television in the waiting room, both in the ICU and in the Emergency Room. Educational videos [...] accessible to the population. From time to time, we would be on duty and also receive that stimulus [...] (Heart – IN).*

Participants in the convergence group also perceived the possibility of making infrastructure adjustments that, in their view, would favor improvements in the care of this patient, even in an overcrowded sector such as the A-ECU. *In the Emergency Room, this patient could be transferred to an isolation bed [...] they would not stay in that hall corridor, because it is full of family members, it is very exposed [...] (Intestine – IN).*

Moreover, professionals suggested that the composition of CIHDOTT should include representatives of A-ECU, considering that there is a recurring presence of ME people in this sector. *This commission, I think it could spread more among people within the unit [...] maybe they would talk more, work with us more, and we would have more clarifications. Multipliers of this idea (Cornea 2 – IN).*

Furthermore, the need for psychological-emotional assistance was mentioned, considering the emotional burden involved in caring for families facing a BD. *[...] I think it messes with our psychology a lot. In my opinion, we lack a bit of that structure, because I can't say that I don't get involved [...] I think that our profession has to have a lot of strength, work a lot psychologically in this area (Marrow – GN).*

Finally, by recognizing the weaknesses linked to care management, professionals highlighted the need to create technologies/protocols in the unit that would support the process of identifying and maintaining brain-dead PD. *[...] a flowchart showing which patients we [need to] stay alert and nursing care for potential donors and care in general, not just nursing. [...] I think the closer to the team, the better (Lung – GN).*

## Expandability of the action plan and the power of the process of transforming care practice

In the convergence group meetings, an opportunity for interaction, integration and demonstration of this group of professionals' interest in debating the research theme was provided. It is believed that this space was a producer of reflections for new conducts in care practice. The convergence group added to the action plan the completion of some products: an explanatory folder on BD and organ donation, flowcharts on BD identification and diagnosis, PD maintenance and the organ donation process.

The materials were disseminated online by management in their virtual groups, through a messaging application. A banner with the flowcharts was made and displayed, as suggested in the groups. Posters with the flowcharts were distributed in the sector, in particular, in the on-call room and the nursing room.

It is important to highlight that the moment created during the convergence group was productive and made sense for participants, as they were aware of and impacted in some way by the dynamics and debates. Furthermore, they recognized themselves as multipliers and identified their role with patients and their families, which shows the power of the process of transforming care practice. *We see that it is quite difficult, but it is not impossible. Before, totally lay people, we [thought]: "He died, he died." for me, it was like that, there was nothing to do. Now, we start to broaden our gaze; he knows that a BD is possible, that it is possible that he is a donor. Now it is known that you have to have the BD protocol (Pancreas – GN); [...] I think we have to be a multiplier, in the sense of caring for the family, caring for this donor, so that more people can receive these organs. I think that in this sense that we must act, for the best of all, especially those who are in a queue, waiting for an organ [...] we who are acting on this front line, that we can do the best for those who are waiting (Intestine – GN).*

It should be noted that this research promoted closer ties between the A-ECU and the CIHDOTT. The commission, which until then was little known by the team, came to be identified as a reference and also a possible space to be occupied. *It is very productive and enlightening, for those who are not part of this committee, to be listening to these explanations. That there is this committee, that it is available within the hospital to monitor these patients, to attract these potential donors. And that we can have more people who can engage in this commission (Uterus – GN).*

As referrals, we mention the participation of one of the authors in the humanization work group of the hospital institution, when research data were presented. This interaction expanded the dissemination of materials produced in the groups. The actions, therefore, may continue after the proposal is linked to the humanization working group and the institution's permanent education nucleus.

## DISCUSSION

The results of this study made it possible to investigate situations that interfere with the identification and maintenance of potential brain-dead donors in an A-ECU, such as difficulties in caring for people with BD, lack of information and inadequate structure. These data are similar to a Spanish study carried out with health professionals<sup>12</sup> and the Brazilian research carried out with nursing assistants and technicians<sup>13</sup> that identified lack of knowledge and unpreparedness regarding the process of diagnosing BD, situations that highlight the need for training and continuing education of health and nursing professionals.

The results also allowed us to propose activities to transform care through educational actions with health professionals that triggered reflections and agreements to better assist BD in the institution. The agreements were related to the promotion of permanent education activities on the subject, dissemination of information, construction of technologies/protocols, organization of infrastructure and work process with support to professionals who assist these people.

Caring for brain-dead PD requires institutional and multidisciplinary team preparation. In this regard, it is mentioned that nurses face difficult and stressful situations in the care of patients in BD, especially when there are repetitive confrontations between teams, capable of interfering with the quality of care provided<sup>14</sup>. Added to this is the difficulty of having to deal with their values, beliefs and myths that are present during their work with the donation process<sup>13</sup>, and the inadequacy of material and human resources to meet PD.

About this, a Brazilian study highlighted that adequate physical structure and health professionals' technical capacity are elements that favored the process of organs and tissues for transplants, with emphasis on the role of nurses in its effectiveness<sup>15</sup>. It is mentioned that emergency rooms are places intended for brief care, with subsequent referral to inpatient units to meet demand, which can make it difficult to provide adequate care for brain-dead PD. Research identified that health professionals who worked in an ICU had better attitudes towards organ donation, when compared to other hospital units, and that younger health professionals had worse attitudes towards the organ donation process<sup>16</sup>.

Team knowledge, interdisciplinary dialogue and maturity can contribute to the best decision. Communication was mentioned by the participants of this research as a determinant in identifying and maintaining PD, an element that drives professional interaction and promotes better performance and results. Moreover, support and cooperation systems among health professionals are needed<sup>17</sup>, introducing the topic of donation in the curriculum and carrying out intervention studies in order to improve attitudes related to the organ donation process<sup>16</sup>.

It is also added that the process of diagnosing BD involves ethical issues, which mobilize feelings in professionals. Professionals' maturity to face the impasses and dilemmas of the profession may be linked to the time of performance, especially when it comes to the process of death and dying<sup>18</sup>, what was perceived in the testimonies of participants, when they verbalized that the professional experience generated a change in behavior in relation to BD and organ donation.

It is important to point out that multidisciplinary work is identified as a potential for organ and tissue donation<sup>12</sup>, and, accordingly, health professionals who work in the organ donation process, such as nurses, nursing technicians, psychologists and doctors, must develop interconnected actions, bearing in mind that this process, which is complex, involves emotional aspects, resources, teamwork and information and security management<sup>19</sup>. When critically ill patients show clinical signs of BD, it is essential that health professionals act quickly for a safe and effective work process<sup>20</sup>.

The relevance of multidisciplinary work and safe conduct was signaled in the interviews and in the convergence groECU, when participants suggested the need for a protocol to guide actions in PD care and standardize conduct, which is similar to suggestions for survey conducted in South Africa<sup>21</sup>. The success of any donation process requires that PD in BR be identified and forwarded early to professionals responsible for their assessment and conversion into effective donors; proposing an approach that includes early identification and assessment of brain-dead PD with the use of checklists, protocol management and training in communication skills can improve the donation process<sup>22</sup>.

There was also a suggestion by the participants to include A-ECU professionals in the CIHDOTT, with an exclusive workload, which could help in the active search and maintenance of brain-dead PD, which converges with a study that identified an unfavorable impact on the PD maintenance process when there are no professionals with exclusive activities in this committee<sup>23</sup>.

The process of identifying and maintaining brain-dead PD is difficult and requires trained professionals, up-to-date on the subject and an active CIHDOTT. Still, it requires health professionals, especially nurses, sensitivity, involvement, empathy, attentive look, keen perception, scientific knowledge and organization of care practices, which include identifying PD's needs, implementing, assessing and monitoring the results of care<sup>24</sup>. In addition, it is important to welcome the team, through psychological support, to help in understanding the feelings involved<sup>25</sup>.

Faced with these weaknesses, strategies must be sought to improve care for PD and the organ and tissue donation process. In this study, participants suggested courses on the subject and dissemination of information through audiovisual resources, which would contribute to the identification and management of brain-dead PD. Data from an Iranian quasi-experimental research showed that the implementation of educational interventions in the process of identifying BD and organ donation significantly raised the level of knowledge and attitude of all professionals involved<sup>26</sup>, because BD is a relatively recent diagnosis that still causes concern and controversy in society, leading to legal questions, and it is also necessary to establish a management plan, avoid futile therapies, reduce health costs and provide clarification to family members<sup>27</sup>.

The educational process is essential for the entire team, regardless of the position held. In the convergence group meetings, there was integration of knowledge and interest in debating the theme. It is mentioned that the institution in question is a teaching hospital and, as such, should be concerned with professionals' training and future health workers' preparation. Brazilian teaching hospitals must guarantee training quality of new health professionals and permanent health education for already active professionals, prioritizing SUS' strategic areas<sup>28</sup>.

The education of health professionals is the fundamental instrument for the development and qualification of a team that works in the process of diagnosing BD and organ donation, and it is recommended to incorporate subjects that deal with the subject in technical, higher and graduate level courses, to provide security to donation processes and awareness of professionals<sup>1,28-29</sup>.

In addition to educational interventions, in order to obtain resolution in PD reporting and effective donors, structural interventions are needed, such as the development of standard operating procedures to conduct the organ donation process based on specific legislation and guidelines that guide BD diagnosis and PD management. From this, the availability of its results in the form of new practices in the care field, research scenario, and the participation of the researcher in support of care actions alongside the local team are cited as advantages of CCR.

It is also considered an important factor, for the health team's best performance, the need for psychological support for health professionals who work in the process of identifying BD and maintaining PD, which was a consensus in the convergence group. It is important to prioritize a strategic line of mental and emotional health for professionals involved in BD care<sup>14</sup> and in transplantation through the implementation of emotional assessment and care plans, aiming to improve training for optimal emotional management in situations of stress and risk to health<sup>30</sup>.

Finally, the results of this study bring aspects that contribute to the construction of knowledge on the subject and can help to mitigate doubts in the assistance, which will have repercussions on the better conduction of the process. Therefore, it will be able to contribute to minimize the gap between demand and supply of organs in the future, being imperative new initiatives and effective research plans on the subject.

As limitations of this study, it is mentioned that it was carried out during the COVID-19 pandemic, with total prioritization of health professionals for the care of people affected by the virus. Therefore, health professionals' restricted availability to participate in the production of data and the remote modality

of partial data production may have limited, at times, to obtain broader dialogues and depth on the subject. Also, as this is qualitative research, the results cannot be generalized, with method limitations, as the participants may not represent the opinion of all health professionals working at A-ECU.

Thus, the challenges of care and multidisciplinary work in the face of PD are translated into topics that point to factors that directly interfere with the identification of a possible donor, BD diagnosis and PD maintenance. Moreover, due to the proposal's complexity, it is understood the need to expand studies on the still incipient theme.

## CONCLUSION

The factors pointed out by participants that interfere with health professionals' performance in identifying and maintaining PD were related to the lack of knowledge on the subject, with the need for professional education, structural inadequacy and human resources that demand organization of the process and systematized actions for improving work. These are issues to be deepened in order to mitigate the fragile points and elucidate measures that can contribute positively to care practice.

The CCR made it possible to expand the knowledge of professionals about brain-dead PD care at A-ECU and allowed interaction between researchers and participants, strengthening care elements and enabling a broader understanding of the care for these people. The dissemination of information about care flows can enable new ways of caring, agility in decision-making and suggest changes in care practice, a convergence with research. The success of this experience will depend on several factors, but it is believed that the research participants, leading actors of care, can be the multipliers of knowledge.

It is recommended to carry out studies with different educational interventions and methodological approaches and the development of the theme in graduation, which may constitute powerful modifiers of reality.

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## NOTES

### ORIGIN OF THE ARTICLE

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### CONFLICT OF INTEREST

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