

# Knowledge of Health Students About the Organ Donation Process in Brazil

Conhecimento de Acadêmicos da Área da Saúde Sobre o Processo de Doação de Órgãos no Brasil  
Conocimiento de Estudiantes de Salud Sobre el Proceso de Donación de Órganos en Brasil

## RESUMO

**Objetivo:** analisar o conhecimento de acadêmicos da área da saúde sobre o processo de doação de órgãos. **Método:** estudo observacional, transversal e analítico, aprovado por Comitê de Ética, realizado por formulário online em março de 2025. **Resultados:** participaram 99 acadêmicos, majoritariamente jovens (18–30 anos). A amostra incluiu estudantes do 3º ano dos cursos de medicina, enfermagem e psicologia, públicos e privados. A maioria nunca estudou e nem participou de eventos sobre o tema. Quase todos foram favoráveis à doação e mais da metade comunicou a família. A maioria reconheceu a proibição do comércio de órgãos no Brasil, a necessidade de informar familiares e que os transplantes ocorrem pelo Sistema Único de Saúde. Houve associação significativa entre ser doador e comunicar a família ( $p=0,0017$ ). **Conclusão:** o conhecimento se mostrou presente, entretanto, o tema é pouco abordado na graduação, evidenciando necessidade de fortalecimento curricular. **DESCRIPTORIOS:** Conhecimento; Estudantes de Ciências da Saúde; Obtenção de Tecidos e Órgãos; Transplante.

## ABSTRACT

**Objective:** To analyze the knowledge of medical, nursing, and psychology students regarding the organ donation process. **Method:** Observational, cross-sectional, and analytical study approved by an Ethics Committee and conducted through an online questionnaire in March 2025. **Results:** 99 students participated, predominantly young (18–30 years). The sample included students from the medicine, nursing, and psychology programs, from both public and private institutions, mostly in the 3<sup>rd</sup> year. Most had never studied the topic or attended related events. Nevertheless, almost all were in favor of organ donation, and more than half had informed their families. Most recognized the prohibition of organ trade in Brazil, the need to inform family members, and that transplants are performed through the Unified Health System. A significant association was observed between being a donor and informing the family ( $p=0.0017$ ). **Conclusion:** Knowledge was identified; however, the topic is seldom addressed during undergraduate studies, highlighting the need for curricular strengthening. **DESCRIPTORS:** Knowledge; Students, Health Occupations; Procurement of Tissue and Organ Transplantation

## RESUMEN

**Objetivos:** Analizar el conocimiento de estudiantes de Medicina, Enfermería y Psicología sobre el proceso de donación de órganos. **Método:** Estudio observacional, transversal y analítico, aprobado por un Comité de Ética y realizado mediante cuestionario en línea en marzo de 2025. **Resultados:** Participaron 99 estudiantes, predominantemente jóvenes (18–30 años). La muestra incluyó estudiantes de los tres cursos, de instituciones públicas y privadas, con predominio del 3º año. La mayoría nunca había estudiado el tema ni participado en eventos relacionados. A pesar de ello, casi todos se mostraron favorables a la donación y más de la mitad informó a su familia. La mayoría reconoció la prohibición del comercio de órganos en Brasil, la necesidad de avisar a los familiares y que los trasplantes se realizan a través del Sistema Único de Salud. Se observó asociación significativa entre ser donante e informar a la familia ( $p=0,0017$ ). **Conclusión:** Se identificó conocimiento; sin embargo, el tema es poco abordado en el grado, lo que evidencia la necesidad de un fortalecimiento curricular. **DESCRIPTORIOS:** Conocimiento; Estudiantes de Ciencias de la Salud; Obtención de Tejidos y Órganos; Trasplante.

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# Original Article

Mendes HKF, Silva LGB, Silva PCS, Costa GL, Lopes IMDAS, Suzuki K, Barreto JCS, Barreto RASS  
Knowledge of Health Students About the Organ Donation Process in Brazil

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## INTRODUCTION

Brazil, through public health policies, has established regulations such as the National Transplant System and the Hospital Donation Team for Transplants (e-DOT), with the aim of increasing the number of donors and encouraging a practice capable of saving lives<sup>1</sup>. The efficiency of this process is fundamental to increasing the number of transplants and reducing the discrepancy between the waiting list and available organs<sup>2</sup>.

The success of transplantation depends not only on the organization of the system but also on ethical and emotional factors that often result in family refusal, one of the main obstacles to donation. The prior expression of the desire to be a donor, through dialogue with family members, can facilitate authorization, since the final decision rests with the deceased person's family<sup>3</sup>.

Another relevant factor is the training of healthcare professionals in the identification and notification of brain death (BD), as well as the appropriate approach to the family—aspects that directly influence the increase in donors in the country<sup>4</sup>. Studies indicate that medical students understand the

diagnosis of BD but have gaps in their knowledge regarding procedures following confirmation. Although the physician does not act fully in the donation process, it is essential that they fully understand the method used<sup>5</sup>. Furthermore, nursing and psychology play an important role in obtaining family consent for donation.

It is essential that education on transplants be offered to various health care disciplines, encompassing the role of the multidisciplinary team to prepare future professionals to handle organ and tissue transplantation. However, university curricula still offer little content addressing this topic, such as its relevance, system organization, family engagement, and professional practice<sup>6</sup>.

Understanding the level of knowledge among medical, psychology, and nursing students regarding this topic, thereby enabling the identification of gaps in the training of future healthcare professionals, is essential.

## OBJECTIVE

To analyze the knowledge of health science students regarding the organ donation process in the Brazilian context.

## METHODOLOGY

An observational, cross-sectional, and analytical study conducted via social media among medical, nursing, and psychology students, carried out in March 2025 using an online questionnaire.

Inclusion criteria were individuals over 18 years of age, students in one of the three aforementioned programs, residing in the metropolitan region of Goiânia, Goiás. All participants previously signed the Informed Consent Form (ICF), available at the beginning of the questionnaire. The study was approved by the Research Ethics Committee (CAAE: 6704XXXX-5.XXX.0035).

The data were analyzed using descriptive and inferential statistics. In the descriptive analysis, the following were calculated: absolute frequencies ( $n$ ) and relative percentages [ $f(\%)$ ]. For the statistical calculations, IBM®SPSS® (*Statistical Package for the Social Sciences*) software was used, adopting a significance level of 5% ( $p$ -value < 0.05), and the variables were compared using the chi-square test.

## RESULTS

Of the 99 participating students, the majority were young people aged 18 to 30 (94.9%), female (81%), Catholic (41.4%), and self-identified as white (55.56%). Regarding distribution by major, 31.3% were in Nursing, 37.3% in Medicine, and 31.3% in Psychology. The nature of the institution was 49.49% private and 50.51% public. The majority of students (58.5% and 67.7%) had never studied or participated in a scientific event on the topic; however, 96.0% are in favor of organ donation (Table 1).

Regarding sociodemographic characteristics, no statistically significant associations were observed between having considered becoming a donor and the variables age ( $p=0.2734$ ), gender ( $p=0.0716$ ), race ( $p=1$ ), religion ( $p=0.3652$ ), and marital status ( $p=0.4051$ ).

Similarly, variables related to academic background, such as field of study ( $p=0.8715$ ), year of study ( $p=1$ ), and type of educational institution ( $p=1$ ), did not show a significant association with the outcome.

No association was observed between having considered becoming a donor and prior study of transplants ( $p=0.4782$ ), participation in events on organ donation ( $p=0.1729$ ), opinion on donation ( $p=0.2244$ ), knowledge about donation ( $p=1$ ), knowledge about transplants through the SUS ( $p=1$ ), professionals responsible for the donation process ( $p=1$ ), and the concept of ME ( $p=0.6875$ ).

However, a statistically significant association was identified between having talked with family members about the desire to be a donor and having already considered becoming a donor ( $p=0.0017$ ). Among participants who reported having thought about becoming donors, 67.74% stated they had already discussed the topic with their family members, while among those who had not thought about becoming donors, 100% reported not having had this conversation.

**Tabela 1. Associação sociodemográfica e desejo de doar de órgãos. Goiânia-GO, 2025.**

Sociodemographic data	Willingness to donate		p-value
	Yes n (%)	No n (%)	
Age group			
18 to 30 years	89 (95,70)	5 (83,33)	0.2734
31 to 50 years	4 (4,30)	1 (16,67)	
Gender			
Female	78 (83,87)	3 (50,00)	0.0716
Male	15 (16,13)	3 (50,00)	
Breed			
Yellow	2 (2,15)	0 (0,00)	1.0
White	51 (54,84)	4 (66,67)	
Brown	33 (35,48)	2 (33,33)	
Black	7 (7,53)	0 (0,00)	
Religion			
Agnostic	20 (21,51)	0 (0,0)	0.3652
Catholic	38 (40,86)	3 (50,00)	
Spiritist	9 (9,68)	0 (0,00)	
Evangelical	22 (23,66)	2 (33,33)	
Umbanda	4 (4,30)	1 (16,67)	
Marital status			
Married or in a domestic partnership	6 (6,45)	1 (16,67)	0.405
Divorced	1 (1,08)	0 (0,00)	
Single	86 (92,47)	5 (83,33)	
Course			
Nursing	29 (31,18)	2 (33,33)	0.8715
Medicine	34 (36,56)	3 (50,00)	
Psychology	30 (32,26)	1 (16,67)	
Year of study			
Fourth	29 (31,18)	2 (33,33)	1.0
Fifth	11 (11,83)	1 (16,67)	
Sixth	8 (8,60)	0 (0,00)	
Third	45 (48,39)	3 (50,00)	
Type of institution			
Private	46 (49,46)	3 (50,00)	1.0
Public	47 (50,54)	3 (50,00)	

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Study on the topic			
I studied on my own	14 (15,05)	0 (0,00)	0.4782
No	55 (59,14)	3 (50,00)	
Yes	24 (25,81)	3 (50,00)	
Participation in an event on the topic			
No	61 (65,59)	6 (100,00)	0.1729
Yes	32 (34,41)	0 (0,00)	
Opinion on the topic			
I don't have	3 (3,23)	1 (16,67)	0.2244
I am in favor	90 (96,77)	5 (83,33)	
Opinion on organ trafficking			
It is prohibited	81 (87,1)	6 (100,0)	1.0
I don't know	12 (12,9)	0 (0,0)	
What does it take to be a donor?			
Notify my family	64 (68,82)	3 (50,00)	0.46
Add "Organ donor" to my ID	14 (15,05)	2 (33,33)	
Register at the registry office	15 (16,13)	1 (16,67)	
Talk with the family about donation			
No	30 (32,26)	6 (100,00)	0.0017
Yes	63 (67,74)	0 (0,00)	

## DISCUSSION

The results of this study demonstrate that the majority of students considered the possibility of becoming a donor, indicating a predominantly favorable attitude. Sociodemographic variables (age, gender, race, religion, and marital status) did not show a statistically significant association with the intention to be a donor, suggesting that these factors may not exert a relevant influence in this population.

Variables related to academic background (field of study, stage of undergraduate education, and type of educational institution) also showed no significant association. This result may indicate that, regardless of the specific area within the health sciences or the stage of academic training,

students hold similar perceptions regarding organ donation.

Another relevant finding was the absence of an association between having studied transplants or participated in events related to the topic and having considered becoming a donor. This result suggests that formal knowledge about transplants may not be the sole determining factor in forming the intention to donate, indicating the possible influence of social, cultural, or family factors.

On the other hand, a statistically significant association was observed between talking with family members about the desire to be a donor and having considered becoming a donor. This finding reinforces the importance of family dialogue in the decision-making process regarding donation, since, in Brazil, authorization

for post-mortem donation depends on family consent<sup>7</sup>.

A survey conducted with medical and nursing students in Pernambuco demonstrated that although the majority of medical and nursing students considered the possibility of becoming a donor, more than half (51.9%) believed that donation could cause some harmful effect, highlighting gaps in knowledge about the topic among future doctors and nurses<sup>8</sup>.

Law No. 14,722, dated November 8, 2023, known as the Tatiane Law, established the National Policy for Awareness and Promotion of Organ and Tissue Donation and Transplantation<sup>9</sup>. Among the law's objectives are the dissemination of content that promotes student awareness and the inclusion of theoretical and practical content on organ donation and transplantation in health-related courses.

Regarding knowledge of the requirements to be a donor in Brazil, most students correctly answered that it is necessary to inform the family of the desire to donate; more than 30% believe it is necessary to register at a notary's office or in official documents, as in a Brazilian study of the general population<sup>10</sup>.

Surveys of primary care professionals have shown that, although the majority are in favor of organ donation, 39.5% believe that wealthier people have a better chance of receiving an organ<sup>11</sup>. In the present study, 12.9% of students were unaware that organ trafficking is prohibited in Brazil, a provision of Law No. 9,434/1997 and a frequent target of misinformation<sup>7</sup>.

According to the consensus guidelines on brain death, this diagnosis corresponds to the permanent loss of all brain functions, including the brainstem<sup>12</sup>. Law No. 9,434/1997 establishes that organ donation must be preceded by a diagnosis of brain death<sup>7</sup>. Research shows that health students still have difficulty correctly understanding this definition<sup>8</sup>. A

study conducted with health students in Pernambuco also identified gaps in theoretical knowledge, especially regarding the distinction between living and post-mortem donations<sup>13</sup>.

Similar results were observed in a multicenter study with nursing students in Italy, in which knowledge about organ donation and transplantation was classified as suboptimal<sup>14</sup>. These findings reinforce the need for investment in the training of health professionals, especially regarding the technical and ethical criteria involved

in organ donation.

It is important to note that the study has limitations, such as the low number of responses obtained. Furthermore, as this is a cross-sectional study, the results represent a snapshot in time, making it impossible to assess changes in knowledge over the course of training. Another relevant factor is that the self-administered online questionnaire may have introduced response bias, with participants selecting socially desirable answers.

## CONCLUSION

The study demonstrated knowledge gaps in the process of organ and tissue donation and transplantation. Misinformation was observed mainly in basic aspects, such as the legal requirements for donation and the professionals responsible for the family interview. The need for institutional and curricular interventions to strengthen the training of health students on the topic is highlighted.

## REFERENCES

1. MoreiraDLS, et al. Política pública de transplante de órgãos no Brasil. *Rev Eletrônica Acervo Saúde*. 2020;12:e5062:2-7.
2. Westphal GA, et al. Diretrizes brasileiras para o manejo de potenciais doadores de órgãos em morte encefálica. *Rev Bras Ter Intensiva*. 2021;33(1):1-11.
3. Salas P, et al. Características pessoais e familiares associadas à doação de órgãos em adultos chilenos. *Rev Med Chile*. 2021;149(3):385-392. Disponível em: [http://www.scielo.cl/scielo.php?script=sci\\_arttext&pid=S0034-98872021000300385](http://www.scielo.cl/scielo.php?script=sci_arttext&pid=S0034-98872021000300385)
4. Souza DH, et al. Determinação de morte encefálica, captação e doação de órgãos e tecidos em um hospital de ensino. *CuidArte Enferm*. 2021;15(1):53-60.
5. Antonucci AT, et al. Morte encefálica como problema bioético na formação médica. *Rev Bioet*. 2022;30(2):272-283.
6. Souza DM, et al. Opiniões de estudantes de saúde sobre a doação de órgãos e tecidos para transplante. *Rev Bras Enferm*. 2022;75(3):e20210001.
7. Brasil, LEI N° 9.434, de 4 de fevereiro de 1997. Brasília; 1997. Disponível em: [https://www.planalto.gov.br/ccivil\\_03/leis/19434.htm](https://www.planalto.gov.br/ccivil_03/leis/19434.htm).
8. Miranda LEC, et al. Knowledge, attitudes and willingness to donate organs among medical and nursing students. *Rev Bras Educ Med*. 2024;48(2). doi:10.1590/1981-5271v48.2-2023-0214.
9. Brasil, LEI N° 14.722, de 8 de novembro de 2023. Brasília; 2023. Disponível em: [https://www.planalto.gov.br/ccivil\\_03/\\_ato2023-2026/2023/lei/114722.htm](https://www.planalto.gov.br/ccivil_03/_ato2023-2026/2023/lei/114722.htm).
10. Souza CC, et al. Conhecimento da população brasileira acerca da doação de órgãos e tecidos para transplantes. *Rev Eletrônica Acervo Saúde*. 2020;56:e4471.
11. Rocha JPS, et al. Conhecimento e posicionamento dos profissionais da Atenção Primária sobre o processo de doação de órgãos e tecidos. *Physis (Rio J)*. 2025;35(1).
12. Greer DM, et al. Pediatric and adult brain death/death by neurologic criteria consensus guideline. *Neurology*. 2023;101(24):1112-1132.
13. Silva JA, et al. Conhecimento, desejo e atitude de estudantes de medicina e enfermagem sobre doação de órgãos. *Rev Bras Educ Med*. 2022;46(2):223-232.
14. Bertocchi L, et al. Knowledge and attitudes toward organ donation and transplantation among nursing students: a multicentre cross-sectional study. *Nurs Rep*. 2025;15(6):181.a1, mas também uma necessidade urgente de saúde pública.