

The Importance of Teaching Anatomy in Cadavers in Medical Courses - A Vision of Humanization

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ABSTRACT

Introduction: the study of human anatomy is essential for all courses in the health area and fits as a subject of the basic cycle. Through their study, students learn the location of human body structures and their shapes, correlating them with their functions. The traditional way of teaching human anatomy is carried out using cadaveric parts, but there has been a reduction in the number of cadavers due to bureaucratic, ethical and moral issues. The modification of the medical curriculum using non-cadaveric teaching approaches significantly affects the teaching of human anatomy, as it influences the domain of anatomical knowledge to practice medicine safely. At the same time, the theme “humanization” has been increasingly recurrent in health services and medical school curricula.

Review: This work aims to demonstrate the influence of cadaveric anatomy in undergraduate courses in medicine and its relevance to the humanized training of health professionals.

Conclusion: The conclusion and unanimous opinion among the authors of the analyzed works were that cadaveric human anatomy is an essential discipline in medical training, providing medical students with knowledge of the architecture of the human body, an understanding of disease processes and an unparalleled view of the three-dimensional organization of the human body, which is indispensable for surgical procedures. Furthermore, contact with cadavers is fundamental in humanizing care since these “silent teachers” offer and expose students to situations of professionalism, ethics, morals, empathy and confidentiality.

Keywords: Anatomy; Humanization; Teaching; Cadavers.

Introduction

The study of human anatomy is essential for all courses in the health area and fits as a subject of the basic cycle. Through their study, students learn the location of human body structures and their shapes, correlating them with their functions. Their knowledge favors the performance of the physical examination, the elaboration of the clinical history and, consequently, the diagnosis of the patient (SCHULTE *et al.*, 2022; RAMOS *et al.*, 2020; VOLANEK, RISSI, 2019; REIS *et al.*, 2013; COSTA, COSTA, LINS, 2012).

Anatomy is an essential discipline in medical training that endows undergraduate medical students with knowledge of the architecture of the body that later enables the understanding of disease processes (BASAVANNA *et al.*, 2022; BARASH *et al.*, 2021), providing an insight into the three-dimensional (3D) organization of the human body and preparing them for future surgical procedures (BASAVANNA *et al.*, 2022; RAVI, 2020).

The traditional way of teaching human anatomy is carried out using cadaveric parts. Notably, cadavers are often considered silent teachers, offering and exposing situations of professionalism, ethics, empathy and confidentiality (BASAVANNA *et al.*, 2022;

DSOUZA *et al.*, 2020; BOND, FRANCHI, 2021; CHANG *et al.*, 2018; CUNHA *et al.*, 2017). However, the number of cadavers for medical training has been reduced due to bureaucratic, ethical and moral issues. Consequently, anatomical teaching is being complemented with software and/or synthetic anatomical pieces, and there is an emerging debate about the best way to teach anatomy (BASAVANNA *et al.*, 2022; OLIVEIRA *et al.*, 2020; VAN, RENNIE, 2015).

According to the Brazilian Society of Anatomy-SBA (2020), the teaching of anatomy with human cadavers is carried out through the bodies of individuals who died and were not claimed by their relatives who, under Law no. 8.501, November 30, 1992, can be used for teaching and research. However, with the increase in the number of faculties using this teaching method and the decrease in unclaimed cadavers, there is a shortage of anatomical pieces. Consequently, we risk losing this resource for training our future professionals. Some countries have encouraged body donation to combat this problem (CORDEIRO MENEZES, 2019; DEMBOGURSKI *et al.*, 2011).

Medicine is directly associated with human relationships, and skills in this area are increasingly required by society. Knowledge must go beyond the

technical aspects and towards understanding the expressions of human suffering and the sociocultural manifestations of illness, in addition to knowledge about the life cycle, valuing the sociocultural context of individuals, and incorporating the social reality and individual experience of each. The Federal Council of Medicine requires that medical professionals and students present knowledge about thanatology and the principles of beneficence, non-maleficence, justice and patient autonomy in medical care, teaching or research (MOURA *et al.*, 2020; GUO *et al.*, 2020; FILHO, 2012).

Respect for cadavers is essential, considering their entire life trajectory, the meaning for those who were part of their life and the fact that they legally lost their citizen status. Today, a much-discussed topic in bioethics is the emotional impact on family members who lose their loved ones, and this discussion should be frequently stimulated in undergraduate and graduate medical courses (FILHO, 2012).

The present study considered that physicians must master anatomical knowledge to practice medicine safely. Thus, medical school curriculum modifications regarding cadavers could significantly affect Anatomy teaching. However, it is unclear to what degree the different teaching approaches have on humanization in medical education.

Method

This research is a narrative literature review, which according to Gil (2008), addresses research based on previously published material and is designed to provide theoretical foundations for the work and identify the current state of knowledge regarding

the topic. The Scientific Electronic Library Online (SCIELO), Latin American and Caribbean Literature on Health Sciences (LILACS) and National Library of Medicine (Pubmed) databases were searched using the descriptors: anatomy, humanization, teaching and cadavers. Moreover, the articles had to have been published in Portuguese or English between 2010 and 2020.

For the selection of studies and eligibility, those original and complete works that addressed the practical anatomy class with cadavers in medical courses were considered for inclusion. Sources that did not address the topic in question, literature review studies, incomplete articles and articles that did not address the medical course, and studies that do not have access and duplicated studies were excluded.

The selected articles are presented in Table 1 in descending chronological order (newest to oldest). Additional information, including the following items: DOI, the title of the work, year of publication, authors, journal/journal, study methodology, results and conclusion, are also provided.

Result

The search initially identified 1,930 potentially relevant studies. Of these, duplicates (n=842), conflicting titles (n=990), containing only abstracts (n=55), outside the stipulated year window (n=33) were excluded. As shown in Figure 1, after evaluating the studies regarding the inclusion and exclusion criteria, ten studies were chosen (n=10) (Table 1).

In the study by Galic, Drvendzija and Strkalj (2016),

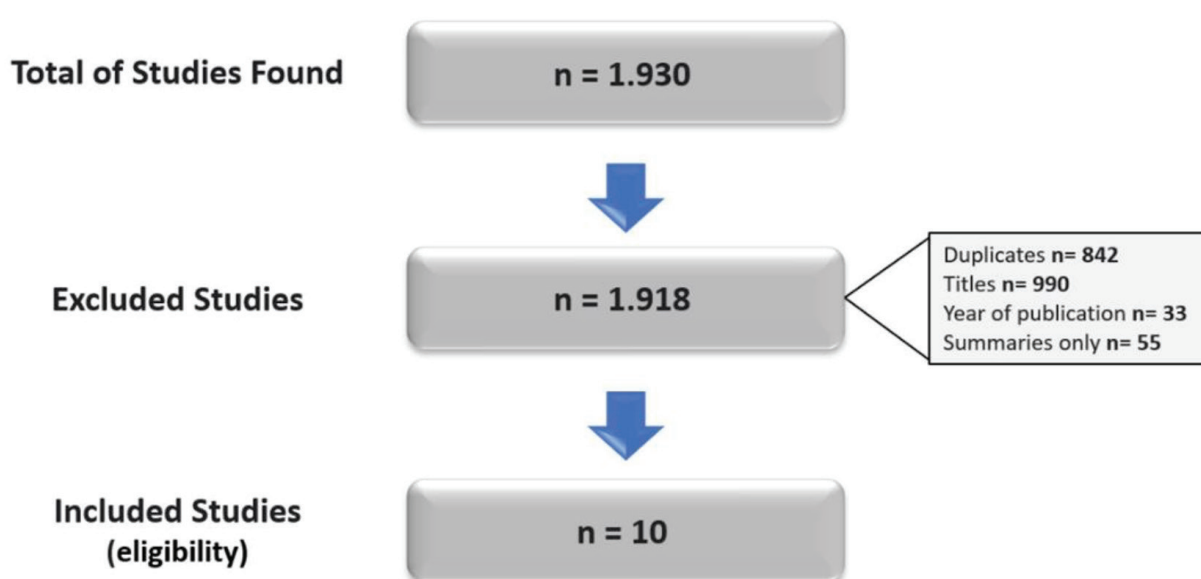


Figure.1. Study eligibility flowchart.

Table 1. Studies used after evaluating the inclusion and exclusion criteria.

	DOI	Title	Year	Author(s)r	Journal	Methodology	Results	Conclusion
1	0.1590/1981-52712 015v43n4RB- 20180184ingles	Retrieval-Based Learning in Neuroanatomy Classes	2019	SANDERS, L. L. O. <i>et al.</i>	Revista Brasileira de Educação Médica	A cross-sectional study carried out from Nov/2016 to Apr/2017 in a private higher education institution. Two methods were used: Traditional, cadaveric material was used. Recovery-based learning applied to recovery practice in neuroanatomy classes. Two tests were performed. Each test contained 12 short answer questions randomly selected from the list of anatomical structures taught. Tests 1 and 2 were the same but could not be directly compared since Test 2 had more brain structures.	Seven hundred twenty students were included in the study. One week after the practical class, students' performance was better in the group submitted to the traditional teaching method than in the evocation-based learning group (p < 0.0001, effect size = 0.60). However, four weeks after the intervention, students who learned using an evocation-based approach performed better than those passively exposed to the learning material (p < 0.0001, effect size = 0.75).	The results confirm previous evidence showing that retrieval practice improves learning and long-term memory. Strategies that lead students to recover learning are more effective than passive exposure to classroom material.
2	https://doi.org/10.24220/2318-0897v28n2a4566	Perspective of voluntary body donation for use in anatomy teaching: social awareness, disposition and associated factors	2019	VOLANEK, A.F., RISSI, F.	Revista de Ciências Médicas	An observational, cross-sectional and prospective study, with an inductive approach and extensive direct documentation through an individual questionnaire applied to 100 individuals. The questionnaire, adapted from previous studies, consisting of objective and subjective questions related to sociodemographic profile, sociocultural characteristics, knowledge and perspectives on voluntary body donation for teaching and research purposes, was prepared and applied randomly.	65% of the interviewees were aware of the possibility of donating the cadaveric body; however, 95% did not know the necessary procedures. Furthermore, 25% of respondents answered that they were willing to donate, observing a statistical association between the level of education (higher education) and the availability of donation (p=0.003).	The interviewed volunteers have a low aptitude to donate their own cadaveric bodies. In addition, it was evidenced that volunteers do not know what procedures are required for a possible donation. Additionally, it is concluded that the level of education is directly related to the availability of donations.
3	10.4025/actasci-biolsci.v39i1.33860	Use of human cadavers in teaching human anatomy in Brazilian medical faculties	2017	LOPES, I.S.L. <i>et al.</i>	Acta Scientiarum. Biological Sciences	A study with a descriptive character and quantitative approach was conducted in Jan/Dec 2015 by professors responsible for the Human Anatomy sector of Brazilian medical faculties. It was addressed to all 242 medical schools, public and private, in Brazil. Data were collected using a standardized questionnaire sent by e-mail. A total of 81 responses were obtained. The questionnaire consisted of questions about utilizing cadavers in practical anatomy classes, methods of preserving human cadavers, difficulties in obtaining cadavers, and using artificial parts and other technologies.	Eighty-one responses were obtained. 96% of respondents reported using human cadavers in their practical anatomy classes. It was observed that 42% of the medical schools surveyed only use formaldehyde; 81% of faculties reported experiencing difficulties in obtaining human cadavers; 84% of medical schools make use of artificial models; 46% of faculties make use of diagnostic images.	Human bodies are widely used in practical anatomy classes at Brazilian medical schools. Currently, there is great difficulty in obtaining human cadavers. Because of this, artificial models are widely used in anatomy teaching, as well as new technologies such as simulators and software.

4	<p>https://doi.org/10.14393/BJ-v32n1a206-34414</p>	<p>Attitudes of medical and allied medical students from Serbia toward whole body donation.</p>	2016	<p>GALIĆ, B.S, DRVENDŽIJA, Z, ŠTRKALJ, G.</p>	<p>Bioscience Journal.</p>	<p>The survey was conducted with all 1st, and 3rd-year students enrolled in all courses and the 6th year of Medicine at the University of Novi Sad. The students were invited to this research anonymously and voluntarily. All of them went through the anatomy course, except for 1st-year students attending. A questionnaire was used, with two groups of questions: basic demographic data and attitudes related to the donation of bodies. They were also asked about their emotions in the anatomy laboratory and the importance of the cadaver for teaching.</p>	<p>87.38% recognize the importance of cadavers in teaching anatomy. 51.26% would support the donation of a stranger's body, while a much smaller proportion of respondents became donors 19.51% or supported their family members in donating their bodies 21.67%. There were differences in attitudes towards body donation related to years of study, ethnicity and religion of respondents.</p>	<p>Students see the significance of cadavers and body donation for anatomy, but while they seem interested in supporting a stranger's donation, they are more reluctant to become a donor or support a family member. The study also reaffirms the importance of culturally sensitive preparation of students for study in the anatomy laboratory and the respectful treatment of dead bodies, including the organization of memorial ceremonies. Organizing and implementing organ donation programs encompassing and addressing different social strata and cultural groups is also necessary.</p>
5	<p>http://dx.doi.org/10.4067/S0717-95022015000100015</p>	<p>Learning Anatomy Through Dissection: Perceptions of a Diverse Medical Student Cohort</p>	2015	<p>Van Wyk, J., Rennie, C.O.</p>	<p>International Journal of Morphology.</p>	<p>A qualitative study in which quantitative data and qualitative data were collected through a questionnaire. Two hundred twenty-seven consisted of students who entered the program as first-time school leavers or adult learners. The second-year cohort was introduced, exposed, and introduced to concepts in anatomy in their first year and completed a semester of hands-on anatomical dissection during their second year. The questionnaire consisted of five sections that, in addition to biographical details, also explored their experiences in PBL, small and large teaching groups, and the dissection program.</p>	<p>Most respondents (70%) reported a positive experience during anatomic dissection in terms of visual and clinical application while also gaining understanding and skill in anatomy. Students with previous educational qualifications and those who dropped out of school for the first time expressed similar complaints. Student responses differed qualitatively on how they benefited from dissection.</p>	<p>Reported the value of the dissection program for second-year medical students. The majority of the cohort reported positive perceptions and experiences. This study confirmed that PBL students continue to learn from cadavers and that their value in teaching and learning anatomy remains.</p>
6	<p>https://doi.org/10.1590/S0100-550220130001300007</p>	<p>Avaliação da percepção de discentes do curso médico acerca do estudo anatômico</p>	2013	<p>REIS.C. et al.</p>	<p>Revista Brasileira de Educação Médica</p>	<p>Cross-sectional study with a quantitative approach and descriptive analysis. Data were collected through a semi-structured questionnaire applied to students in the first, second, third, fifth and sixth periods of the medical course.</p>	<p>Two hundred one responses from a total of 225 questionnaires.. 87.06% use textbooks, 80.60% use artificial pieces and 37.81% use internet sites. Factors that facilitate learning, 43.88% and 35.71% respond, respectively, to lectures and the use of anatomical parts, with 19.07% stating that it is vital to use these methods, emphasizing the clinical approach. Factors that make it challenging to learn Anatomy, 49.74% of students attribute the difficulty to the many terms to memorize.</p>	<p>Insecurity on the part of students regarding their knowledge in Anatomy. Although the majority affirmed that the lectures are essential for learning the discipline, it is observed that the number of classes taught was considered insufficient. Given all the analysis, it is necessary to examine the evolution of the medical course curriculum to observe how Anatomy is inserted into this process.</p>

7	DOI: 10.4034/RBCS.2013.17.03.06	Dissecação e Capacitação de Habilidades e Competências Gerais na Formação Médica	2013	MEDEIROS, A. C. et al.	Revista Brasileira de Ciências da Saúde.	A cross-sectional study was carried out with medical students at the Federal University of Paraíba in João Pessoa. Fifty-four undergraduates were included who answered a structured questionnaire.	There was a predominance of males (55.6%), and the mean age was 22.3 years. Of the 54 undergraduates, there was a report that “frequently or very often”, there was the development of the ability to make decisions in 53.7%, leadership in 48.2%; administration and management in 70.4%, communication in 74.1%, continuing education in 72.2% and health care in 38.9%.	Dissection is important in the training of general skills in the teaching of Topographic Anatomy and, therefore, can contribute to the formation of the profile of the medical professional recommended by the National Curriculum Guidelines for Medicine Courses.
8	https://doi.org/10.1590/S0100-55022012000500011	O Cadáver no Ensino da Anatomia Humana: uma Visão Metodológica e Bioética	2012	COSTA. G.B.F., COSTA. G.B.F., LINS. C.C.S.A.	Revista Brasileira de Educação Médica	A descriptive study was carried out based on data collection through the application of questionnaires that contained exclusively objective questions related to the methodologies applied in the teaching of human anatomy.. was carried out with 542 students who were studying human anatomy at the Federal University of Pernambuco, from the Health Sciences Center courses (Medicine, Dentistry, Physiotherapy, Speech Therapy, Physical Education, Pharmacy, Occupational Therapy and Nutrition), from the second semester. They were asked about: whether cadavers were used in their practical classes for study; whether their use was essential and whether they could be replaced by computer programs, synthetic material or animals, as well as whether they should be used only for research; what were the teaching aids they used and if their teachers used any technology in the classroom.. Regarding bioethics, questions were asked about: if they had received any information about the importance of respect when handling a cadaver; whether having the courage and emotional maturity was necessary to manipulate it, as well as a religious influence; whether human anatomy classes prepare the future professional to have emotional balance.	Five hundred forty-two students responded to the questionnaire, all of whom claimed to use cadavers for study in their practical classes. 482, 88.9% considered its use indispensable in anatomy classes.. When asked if the human cadaver should be used only in scientific research and not in undergraduate classes, 517 (95.7%) students did not agree. by computer programs and synthetic materials, 443 (81.9%) of the students responded negatively. When asked if the use of cadavers could be substituted and when asked about substitution by animals, 530 (98.1%) responded that they were not in favor. In addressing bioethical issues, 434 students (80.7%) claimed to have received some information about the importance of respect when handling a cadaver or part of it, not treating it as a simple study material. Emotional maturity was considered an essential condition for adopting an adequate posture in front of a cadaver by 519 students (96.3%). Already 366 (68%) of them stated that to pursue a career in the area of Health Sciences, the individual must have the courage to see a cadaver or manipulate it. Respondents (74.6%) also consider that human anatomy classes prepare the future professional to have emotional balance and be more human.	The use of human cadavers, even if only for the demonstration of anatomical structures, was considered indispensable to the teaching-learning process in the study of human anatomy. The handling of the cadaver by the student was seen as a way to strengthen the humanization of future health professionals, reflected in their behavior with patients.

9	<p>https://doi.org/10.1590/S0100-55022010000200018</p>	<p>Procedimentos legais e protocolos para utilização de cadáveres no ensino de anatomia em Pernambuco</p>	2010	<p>MELO, E.N., PINHEIRO, J.T.</p>	<p>Revista Brasileira de Educação Médica.</p>	<p>The methodology used consisted of discussion meetings and presentation of protocols for the reception of cadavers based mainly on Federal Law 8501 and Provision/CG nº 16/97 of the State of São Paulo. These meetings took place, in mid-2007, at the Epidemiology auditorium of the Pernambuco State Health Department, with the participation of representatives of the Vital Events Monitoring and Surveillance Management/SES; the Mortality Information System (Municipal Health Department – Recife); the necropolis service of the Urban Maintenance and Cleaning Company; from the Federal University of Pernambuco; from the University of Pernambuco; from the Federal University of Vale do São Francisco; from the Faculty of Boa Viagem - Maternal-Infant Institute (Imip); and the Academic Center of Vitória de Santo Antão (PE). The meetings resulted in a protocol of intentions presented to the Corregedoria Geral de Justiça do Estado de Pernambuco for evaluation and pronouncement.</p>	<p>Publication of Provision 28/2008 of the Internal Affairs Department of the Court of Justice of the State of Pernambuco, which provides for the registration of the death of cadavers destined for medical schools for teaching and research purposes; creation of protocols for the use of cadavers in the State of Pernambuco.</p>	<p>It was possible to create functional organizational charts for the reception of cadavers by medical schools. These organizational charts guide the procedures from the origin of the cadaver and its legal procedures to the burial of the cadaveric remains for each institution involved. The regularization of procedures for receiving bodies legally obtained and registered in a reputable manner resulted in trust on the part of individuals in society, encouraging spontaneous donation.</p>
10	<p>http://dx.doi.org/10.4067/S0717-95022010000100039</p>	<p>The Practice of Dissection as Teaching Methodology in Anatomy Applied to Medical Education</p>	2010	<p>FERREIRA, T. A. A. <i>et al.</i></p>	<p>International Journal of Morphology.</p>	<p>The study was carried out at the Faculty of Arts of the UFG in 2007. 86 students from the 3rd to 10th periods of medicine participated, who answered a questionnaire developed with the help of psychologists specialized in education. The questionnaire was answered by 10 students who underwent dissection in the discipline of human anatomy (Group 1 - G1) and 76 students who did not (Group 2 - G2).</p>	<p>They indicate the improvement of learning using dissection. In percentage, it represents 100% of G1 responses and 88.16% of G2 responses with $r = 0.98$ and $t = 8.53$. For question 3, G1 presented 3 modes in general, but answer 5 represented 30% for items 2 and 3, representing 60% of the positive answers for the general idea "helps to learn". G2 has the same general "helps to learn" mode with 55.27%, and alternatives 2 and 3 represented 22.33% of the total. The r value for the correlation between the groups was 0.69 and $t = 1.91$. For question 4, answered only by G1, it should be emphasized that items 4 and 5 had 0% and that all other items showed relevant factors associated with the graduates' learning and future perspectives, including item 6, which received 30% for items 1, 2, 3 and 4 altogether.</p>	<p>The use of dissection in anatomy is an essential tool for the consolidation of modern paradigms for medical education, a teaching methodology to encourage critical, investigative and integrative thinking of basic and clinical knowledge. Students who took part in the discussion of curricular changes considered that the lack of dissection in anatomy is disadvantageous for their training and medical practice in both groups, and, finally, the hypothesis assumed that dissection in practical anatomy classes improves the students' attention and learning, as indicated by the data.</p>

students reported the importance of cadavers in anatomy classes and medical training. They also pointed to the need for more campaigns to donate bodies for studies. However, when approaching the donation of the bodies of their loved ones or their own bodies, they were reluctant. The study also reaffirmed the importance of preparing students to respect cadavers, further strengthening the importance of organ/body donation programs reaching different social strata and cultural groups.

In the study by Voanek *et al.* (2019), it was shown that volunteers for body donation do not know the procedures required for a possible donation of bodies, reinforcing the study by Galic, Drvendzija, Strkalj (2016), which exposes the relevance of donations of bodies between different levels of education and social groups.

Melo and Pinheiro (2010) reported that the regularization of procedures for receiving cadavers obtained legally and reputedly registered resulted in trust on the part of individuals in society, encouraging spontaneous donation for teaching and research purposes.

According to Costa, Costa and Lins (2012), using human cadavers, even if only to demonstrate anatomical structures, is considered essential to the teaching-learning process in studying human anatomy. Indeed, the cadaver is an excellent resource for learning about humanization and improving clinical practices with your future patients.

The studies by Van and Rennie (2015), Medeiros *et al.* (2013), and Ferreira *et al.* (2010) highlighted and corroborated the importance of cadaveric dissection in the practice of learning in human anatomy, strengthening anatomical skills, clinical correlations and general humanistic training of the doctor.

Notably, each study is based on a form of learning. Reis *et al.* (2013) exposed the challenge of examining the evolution of the medical course curriculum, observing the insertion of anatomy in this process since it is known that it is necessary to seek a balance between anatomical details and the safety of procedures, assimilation of theories and anatomical applicability. Not surprisingly, cadaveric teaching is an excellent ally in this process.

Finally, Ferreira *et al.* (2010) argue that dissection in anatomy is an essential tool for the consolidation of modern paradigms for medical education. They describe it as a teaching methodology encouraging critical, investigative and integrative thinking of basic and clinical knowledge. The students who took part in the discussion about curricular changes considered that the lack of dissection in anatomy is disadvantageous for their training and medical practice.

Furthermore, the authors' hypothesis assumed that dissection in practical anatomy classes improves the attention and learning of students, placing them in front of the ethical, moral and professional aspects of

the medical profession.

Discussion

Using human cadavers for medical education is an old and common practice worldwide. A set of factors is necessary to learn anatomy, including understanding, memorization and visualization of body structures. Safe medical practice demands more than technical knowledge (i.e., skills and appropriate applications of the technique to promote health to the patient), so anatomy is a fundamental and indispensable prerequisite in the construction of knowledge and clinical language, presenting content necessary to be correlated with clinical practices (MOURA *et al.*, 2020; FONSECA *et al.*, 2020; PONTINHA, SOEIRO, 2014).

According to Pontinha and Soeiro (2014), the number of human cadavers for teaching and research has been reduced, which is a constant problem since anatomy is the basis of medical training. Marsal (2013) warns that with the difficulty of obtaining cadavers, it became necessary to use alternative methods, such as synthetic materials and digital programs (MORANO *et al.*, 2020; VOLANEK and RISSI, 2019). Nevertheless, no matter how high the quality, this teaching material will not replace the reality of a cadaver (BASAVANNA *et al.*, 2022; OLIVEIRA *et al.*, 2020). According to the SBA (Brazilian Anatomy Society), even with different ways of studying anatomy, nothing superior to the real human body has yet to be invented, which consolidates the results obtained in the articles of the present study.

According to Volanek and Rissi (2019), in Brazil, the ratio of cadaveric bodies and higher education institutions is inversely proportional, such that there is an increase in teaching institutions and a shortage of human cadavers for teaching and research. This result is probably due to the excess bureaucracy to acquire these bodies and improve the country's socioeconomic conditions by reducing the number of indigents. Interestingly, several countries encourage donating bodies for teaching and research to solve this problem.

The study by Ferreira *et al.* (2010) is strengthened by the study by Pontinha and Soeiro (2014), where they ensure that cadaveric dissection improves the anatomical learning of the student, not only learning details but also morphological variations. The cadaveric dissection classes also transmit ethical and humanist values, helping future doctors, restoring and reinforcing the values of humanization when dealing with death, and respecting their patients (COSTA, COSTA and LINS, 2012).

Finally, among all the studies analyzed, the common sense demonstrated among the researchers was that cadaveric dissection provides students with technical skills, opportunities to find anatomical variations, work as a team and reflect on death, something that will be present in the daily activities of a doctor, reflecting directly on the perception of medical humanization.

Interestingly, reinforcing this context, the study by Rocha *et al.* (2019) evaluated the impact of a ceremony honoring the bodies donated for anatomical studies among medical students and concluded that the students who participated in this ceremony showed more outstanding commitment to their studies, a greater reflection on death and perception with their empathy for the next when compared to those who did not attend this ceremony.

Conclusion

Since human anatomy is fundamental for all courses in the health area, contact with cadavers in human anatomy classes becomes essential. In the process of learning about the health-disease relationship, in the cadaver, one not only learns about organs and systems but also stimulates the humanization of care, offering

and exposing students to situations of professionalism, ethics, morals, empathy and confidentiality. It is worth emphasizing that the closest thing to a living human body is the human body of a cadaver. Therefore, as exposed by Onigbinde *et al.* (2020), no virtual platform can replace the experience of dissecting and witnessing the real structures of an actual human body. This study stimulates and reinforces the importance and humanistic relevance of the study of cadaveric human anatomy, where the student has the opportunity to contact his 'first patient' with his 'silent teacher', the one in his infinite nobility when teaching, the called cadaver.

As very well pointed in Iwanaga *et al.* (2021), out here follows our Special thanks and acknowledgment to the cadavers from all anatomy laboratories, because without them no advance on the human body would be possible until now.

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