

## **The Brazilian Ceremony in Honor of Body Donors: An opportunity to express gratitude and reflect on medical education**

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### **ABSTRACT**

**Introduction:** Memorial ceremonies are a way for institutions to show their gratitude for the gesture made by body donors and are an opportunity for students to reflect on the ethical paradigm shift. Therefore, this study aims to describe the memorial ceremony at the Federal University of Health Sciences of Porto Alegre and assess the perception of both students and the donors' relatives regarding the event.

**Material and methods:** In 2016, a questionnaire was applied to donors' relatives with questions regarding structure of the ceremony, ethical training of the students and importance of body donation. Another questionnaire was applied to the first-year students of the medical school, with questions about understanding the use of bodies, and their thoughts on death and relevant ethical issues.

**Results:** Fifty questionnaires were answered by family members and 98% agreed that the ceremony was an opportunity to feel closer to the donors and 100% said that the ceremony is important in the ethical training of students. Among students, 68 questionnaires were answered, and all affirmed that the event had a positive impact on the perception of physician-patient relationship and personal growth, and 86.7% reported enhanced empathy.

**Conclusion:** The memorial ceremony seems to encourage students to reflect on ethical issues, because at the same time that the donors' relatives perceive an attitude of care and respect on the part of the students, the students state a heightened sense of commitment and responsibility regarding their learning and professional formation, which depends on the gesture made by the donors.

**Keywords:** anatomy, empathy, medical education, body donation, memorial ceremony

### **Introduction**

The dissection of human bodies is fundamental to the study of Human Anatomy, because it enables students not only to develop technical skills, but also to learn to work in a team, to be aware of anatomical variations, to understand death and to value human beings, especially when in their most vulnerable state [1-2].

Despite the development of synthetic models, which closely resemble the human body, and complex 3D anatomy programs, such features are no substitute for learning by dissecting a cadaver [3]. Universities that abandoned the use of human bodies for teaching have subsequently reintroduced their use, due to the

detriment caused to the students' learning [4]. Thus, new technologies for teaching anatomy should serve as a complement to the use of corpses, not to replace it [3,5].

Therefore, to maintain the use of cadavers for teaching, voluntary body donation has been adopted by many medical schools in different countries as the only means of obtaining the necessary bodies, always in conformity with local legislation [5-10]. In some countries, however, the absence of well-established body-donation programs and cultural and religious obstacles means the use of unclaimed bodies remains the only viable option [11].

In Brazil, although most universities use unclaimed bodies from the Legal-Medical Departments, number is declining annually [12]. Added to this is the increase in the number of medical schools in the country which has occurred in recent years [13]. Moreover, much of the population is unaware of the possibility of donating one's own body in life. Faced with this situation and the need to obtain bodies to maintain an adequate quality of teaching, in 2008, the Human Anatomy Discipline of the Federal University of Health Sciences of Porto Alegre (UFCSPA) created the Body Donation Program for Teaching and Research in Anatomy (PDC) [14]. This program aims to raise the awareness of the population, through publicity campaigns, regarding the possibility of donating the body and how to do so. For this purpose, the PDC uses documents that ensure the seriousness and legality of the process of donating the body in life and after death.

Thus, in view of the good results obtained by the PDC [5], with the greater availability of materials over the years, other interconnected activities have been developed, which became the Extension Program in Anatomy. The Program is composed of several complementary projects: the Body Donation Program, the Dissection Workshop, the Museum of Anatomy and the Ecumenical Service in Homage to Body Donors.

The Dissection Workshop is a 40-hour extension course, which is offered annually to undergraduate students who have already completed the anatomy discipline. Students attending this discipline can expand their knowledge in anatomy in addition to developing surgical skills. The anatomical pieces produced during the Dissection Workshop are used in the anatomy practical classes and some of those are selected to be exhibited in the Museum of Anatomy. The latter is a temporary exhibition, of variable duration (10 to 20 days), which has taken place annually since 2008, through which the community can see how the bodies donated to anatomy teaching at UFCSPA are used. In addition, at the end of each year, students and teachers have the opportunity to thank the donors' families for their altruistic gesture in making the donation, through the Ceremony in Homage of Body Donors. This ceremony is the cornerstone of all the work, as it serves to endorse the program for teachers, students, and the donors' families.

Thus, the purpose of this study is to describe the ceremony held at the UFCSPA to honor donors as well as to discuss the ethical paradigm shift regarding the use of voluntarily donated bodies. Besides, was analyzed the opinion of the donors' family about the Ceremony and the students' perception of it, evaluating their involvement in the ceremonies in homage of body donors.

## **Methods**

### **The ceremony**

Since 2010, at the end of each year, UFCSPA's undergraduate students (Biomedicine, Nursing, Medicine, among others), together with fellows of the Extension Program in Anatomy and professors of the discipline of Human Anatomy, have been involved in organizing and conducting a thank-you ceremony for body donors. The ceremony marks the end of the PDC's annual activities and is keenly awaited by the first year students, who conclude the discipline of anatomy and see the event as an opportunity to pay their respects.

The students participate in all stages of the ceremony, from its planning and organization, to coordination and conduction, being responsible for decorating the space, inviting and welcoming the guests (the donor's families), selecting and presenting the songs and writing the speeches. They are also responsible for inviting a religious representative to offer words of comfort, based on consensus among the students. The ceremony has been ecumenical since its first edition in 2010, and representatives of various faiths including Buddhism, Catholicism, Protestantism (Lutherans), Spiritism, the Seicho-No-Ie philosophy and theologians have been invited.

The ceremony begins with a song being sung and played by the students to welcome visitors which is followed by brief speeches of thanks from members of the Rectorate, the PDC coordinating committee and representatives of the students involved in organizing and conducting the event. It is an opportunity for the students to freely express their feelings and their thoughts regarding voluntary body donation and its fundamental role in their ethical, humanistic and professional training, as well as reflecting on the finitude of life, death and their meaning.

The ceremony continues with the 'Candle Ceremony' in which each student carries a candle representing each of the bodies received by the PDC in the current year and each year of program's existence. At the same time, the students prepare a video with photos of the donors, provided by their families, while reading a list with the names of all the donors of the bodies received since the beginning of the Program. At the end, the families are presented with flowers delivered by the students, along with a message of thanks for the altruistic gesture of the donation.

Until 2015, the ceremony was held in UFCSPA's Ecumenical Chapel. In 2016, however, it took place at the University Theater, which made it possible to better accommodate the guests because of its greater size, and yet it still reached maximum capacity. About 240 people, among them students, teachers, staff and families, were present.

In the closing moments, when the students are closer to the donor relatives, thanks and farewells are expressed among smiles and tears. Students thank family members for attending the ceremony and having allowed and supported the donation, which is reflected in the enhanced formation of the students involved in organizing and conducting the event, while in turn, the family members have the opportunity to say goodbye to their loved ones and to find comfort in the ceremony in which they can perceive the students' care and gratitude towards both the donors and the relatives' agreement to respect the donor's wishes. Figures 1 and 2 demonstrated some moments the 2016 edition of the event.



**Figure 1.** Ceremony in honor of the Body Donors Photos - 2016. (a) ‘Candle Ceremony’: students carrying candles representing each of the bodies received by the BDP in the year. (b) First-year students from the medical school presenting a rose to the donors’ relatives of them. (c) Invitation sent to donors’ relatives by PDC.



**Figure 2.** Ceremony in honor of the Body Donors – 2016, including students who participated in the organization of the ceremony.

### Data and statistical analysis

The numbers of family members and students that have participated in the ceremonies in the period from 2010 to 2016 were evaluated. In addition, the data obtained from a questionnaire applied to first year medical students involved in the organization and conduction of the ceremony in the year of 2016 were analyzed. The questionnaire consisted of 30 statements with which the respondents could express the degree to which they agreed or disagreed using a Likert scale [15] (Sullivan and Artino, 2013). The areas covered by the questionnaire included the importance of practicing dissection in developing academic knowledge, in developing teamwork, regarding the use of bodies and their thoughts on death. Other questions were related to their knowledge of the processes by which bodies are obtained for the study of Anatomy, about their knowledge of the Program before joining the University and if, following completion of the discipline, there had been any change in their attitude towards donors, as well as the extent to which the Program influenced their ethical and professional training. Further questions focused on the importance of the Ecumenical service: whether participation in the ceremony increased their care for donors, whether it impacted on academic experience, on personal growth and whether the student felt any increase in the level of empathy. In addition, they were asked whether the ceremony influenced their ability to perceive the bodies as individuals. Finally, it asked whether the student would consider donating his/her own body or that of a relative to the teaching of Anatomy.

Data obtained from a questionnaire applied to family members present at the event were also analyzed. The form consisted of 10 questions regarding the organization of the ceremony, such as its

duration, content infrastructure and reception at the venue, as well as questions about the impact of the ceremony, the ethics of the students and the importance of this expression of gratitude.

The study was approved by the Ethics in Research Committee of UFCSPA (no.721/08). The data were collected in via questionnaires using Google Forms and later analyzed using the IBM SPSS v.21 program (IBM Corp., Chicago, Illinois).

## **Results**

From 2010 to 2015, an average of 75 visitors and 60 students participated in each edition. In 2016, with the larger venue, approximately 250 people participated, among visitors and students. These figures indicate a total of 1050 participants, including the donors' relatives, outside visitors, students, teachers, administrative staff and members of the organizing committee.

From a total of 107 students in the 1st year of the medical course, 68 students involved with the organization or conduction of the ceremony answered the questionnaire. It was observed that 91.1% (62) stated that participating in the Ecumenical service increased their feelings of responsibility regarding the corpses used for teaching. Everyone agreed that the Ecumenical service had a positive impact on the academic experience and personal growth. In addition, 73.5% reported a positive impact on the doctor-patient relationship and 86.7% reported a heightened sense of empathy. Of the respondents, 67.6% stated that the ceremony facilitated reflection on death, 55.8% reported that their participation made them think about the possibility of donating their own body for teaching and 83.8% reported that after participating they would agree to donate the body of a family member.

Fifty questionnaires were answered by the relatives of donors and outside visitors attending the 2016 edition. Of these, 21 had participated in previous editions. Of the respondents, 98% (48) agreed that the Ecumenical service was an opportunity to feel closer to the donor and 100% stated that the ceremony is important in the ethical formation of the students and also as a gesture of gratitude to the donors. Of the total, 90% (45) of the respondents said they felt more confident about donating bodies after observing the students' attitude towards donors during the ceremony. In addition, 34% of the respondents said that having attended the ceremony had influenced other relatives to also donate their bodies.

## **Discussion**

Institutions in countries around the world hold ceremonies to express gratitude to body donors and their family members [16-22]. This represents a paradigm shift in the context of medical training by emphasizing the importance of "humanity and compassion" [22]. In this sense, it is important to point out the fact that most ceremonies are conducted by the students [22]. Thus, many donation programs have treated the donated bodies as 'first patients' or as 'teachers' because of their importance for academic growth [2, 21-22].

Around the world, there are slightly different approaches regarding such ceremonies. For example, the annual ceremony held by the Mayo Clinic School of Medicine, entitled 'The Convocation of Thanks', aims to provide students, teachers, professionals and families with an opportunity to comprehend the value of gesture of the donation [16]. In Thailand, two ceremonies are held, one at the beginning of the school

year, involving students, academic staff, family members and Buddhist monks, in which the names of the donors are announced and they are awarded the title of 'Great Teacher', and another at the end of the year, in which students carry their 'teachers' to the cremation site [2, 17]. There are other examples from countries and regions such as South Korea [23], New Zealand [6], Africa [24], Spain [25], China [26] and the Netherlands [20], all of which include forms of appreciation, ranging from the construction of chapels to memorials, all of them focusing on the fact that there is no specific place for the funeral of the loved ones [11]. In addition, it is apparent that such ceremonies have a positive effect on the number of donations [11].

In Brazil, most of the population believes that medical schools use unclaimed corpses for teaching and research purposes and, furthermore, that this is not be a problem since the bodies are abandoned. However, the PDC is working to change this paradigm. Body donation programs are slowly expanding in order to inform the population of the possibility of voluntary body donation in life [5, 14]. In this context, students play an important role, acting as agents, disseminating information and conducting ceremonies in honor of donors. The ceremony as well as the related activities lead students to understand and reflect on the fact that volunteer donors provide their bodies altruistically, believing that by doing so, they will contribute to the development of trained professionals and that, because of this attitude, students should be committed to learning [5]. In addition, ceremonies allow students to acknowledge and express gratitude to the donors and their families for the gesture, which stimulates a greater sense of professional responsibility [27]. It also provides students with an understanding of life and death by encouraging them to reflect on their own mortality [28].

The findings of the surveys conducted in this study suggest not only the importance of the ceremony for the donors' families, who forwent traditional funeral rituals in order to respect the desire of their loved one to be a donor, but also in relation to the perception of the role of the donor in enhancing ethical attitudes among academics, which enables the development of more humane and altruistic interactions in the physician-patient relations of those future professionals. In addition, the attitude demonstrated by the students and observed by family members during the ceremony offers greater confidence for donors' relatives regarding body donation.

Similarly, through the questionnaires answered by the students who organized and participated in the event, one can perceive the considerable value attributed to this ceremony, since everyone agreed that there was a positive impact on their academic experience and personal growth. Moreover, these results show there is greater care and respect for corpses used for teaching, together with a more intense reflection on death and an increase in the feeling of empathy towards others, which may lead to the establishment of more positive doctor-patient relations. Thus, the results suggest an important degree of recognition of the Ecumenical service and the donation of bodies on the part of the students, since the majority stated their participation provided an opportunity to reflect on the possibility of donating their own body and that they would agree to donate the body of a relative for teaching purposes.

In addition, the opportunity to reflect that the ceremony provides the students, predisposes an important paradigm shift, since unlike the case of unclaimed bodies, the donor offers his/her body voluntarily in an act of altruism, believing that his gesture will contribute to training better medical

professionals [5]. Thus, the comprehension of this fact helps the students fully realize the dimension of the commitment and responsibility required for their own learning [27].

Although this ceremony is intended to express gratitude to the donors and their families, the students have always included a religious aspect. Possibly it happens because 92% of the population claims to have some religious belief [29], although Brazil is a secular country. In some oriental cultures, the ceremonies are essentially religious in nature [17, 30]. However, in a study of the solemnities conducted in anatomy programs in the United States [22], the authors reported the use of religious verses, texts or sentences on only 6% of occasions, suggesting that religious discourses are avoided due to the heterogeneity of the population.

Another important aspect is donor confidentiality. In some programs, the identity of the donor is preserved [22]. Nevertheless, there is a tendency to reinforce the identity of donors as individual human beings rather than as anonymous corpses, in the hope of building the students' attitudes toward their future patients [17,22]. In 2013, we began naming the donors during the ceremony to make it more personal, which is intended to strengthen the welcome and gratitude expressed to the donors' families while providing an opportunity to remember and say goodbye to loved ones, as they have forgone traditional and family funeral rituals by respecting the donor's wish to donate the body. In addition, the large number of students present and the respect shown to the donors, conveyed by words and gestures during the ceremony, demonstrate the seriousness of the students and reassure the families regarding the care taken with each donor's body.

Thus, based on our data, the Memorial Ceremony seems to have encouraged greater reflection on ethical issues on the part of the students, because while the families perceive an attitude of care and respect expressed by the students, the students claim it heightens their commitment and responsibility towards their learning and professional training, which is dependent on the donor's actions.

Therefore, the Extension Program as a whole depends on the involvement of the students, both scholarship holders and project volunteers, working in its organization and conduction, as well as those attending the activities and courses. Hence, the students at the end of the first year of the medical course, when finishing the discipline, participate in the organization of the ceremony. While second, third, and fourth year students can participate in the dissection workshop, the Anatomy Museum, and the PDC, and apply for fellowships or participate in the projects as volunteers.

In short, the Ceremony currently functions as the link between all the activities within the Extension Program in Anatomy, providing a sense of accomplishment for these events. Thus, through the Dissection Workshop and the Museum of Anatomy, students are offered the opportunity to improve their technical and scientific abilities while simultaneously increasing their awareness of issues related to the need and importance of donating bodies in life, in order to continue such activities. It also encourages reflection on ethical issues, in an attempt to modify paradigms, starting in the first year of the course, through the Ceremony, raising awareness, and increasing responsibility and dedication to learning. And during the course, by assuming the commitment to transmit the knowledge received to the community in the form of education and art, through the Museum of Anatomy and, finally, with the improved training, ensure a differentiated quality of service to future patients.



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