

Knowledge of teachers and students of a Dentistry course about the legal aspects that involve the use of extracted human teeth

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ABSTRACT

This study assessed the level of knowledge of teachers and students of a Dentistry Course about the ethical and legal aspects involved in the acquisition and handling of extracted human dental elements. We applied a semistructured questionnaire to the teachers and students from the 2nd period, since they constitute the users of human teeth in preclinical teaching and research activities. Data were analyzed using the descriptive statistics for the closed questions, in addition to the Collective Subject Speech for the open questions. We interviewed 51 teachers from the total of 55 and 201 students from the total of 288, of which 72.55% and 72.60%, respectively, recognized the dental element as an organ. As for the way to obtain the teeth, 39.49% of the students reported that they acquired teeth in dental offices and 33.76% in health units, where 91.04% of the students and 80.39% of the teachers are unaware of any commercialization. Regarding biosafety, both students (78.61%) and teachers (90.20%) recognize the biological risk in the handling of these elements and perform some type of disinfection. When considering the legal aspects, 68.63% of the teachers and 20.10% of the students stated that they were aware of the existence of a regulation, although this statement was not explicitly reflected in the obtained responses. From the textual material generated by the open questions, we raised three categories (way to obtain the used teeth, commercialization of teeth and biological risk), which were interpreted in the light of speeches added by the interviewed segments (teachers and students). We can conclude that both teachers and students have shown little knowledge about the legal aspects involved in the acquisition and handling of extracted human dental elements.

Descriptors: Bioethics. Legislation. Tooth. Biological agents.

1 INTRODUCTION

Dental education involves theoretical approaches that are essential to the cognitive

mastery of the applied techniques and practical approaches, which are indispensable to the motor training of undergraduate students for procedural

actions related to this profession. Accordingly, the teaching of Dentistry requires, before direct interventions with patients, motor training that instrumentalizes the academics to perform the procedures in the individuals to whom they will provide care. The knowledge about dental anatomy, the training in restorative procedures, the training to perform endodontic treatments, among other procedures performed in the Dentistry course, occasionally, requires the use of natural dental elements. The use of human teeth for the study of anatomy and preclinical training has been practiced in dentistry since ancient times, being essential for professional training^{1,2,3}.

The dental market provides prefabricated teeth, made with different types of materials. Nevertheless, they have high cost and their texture often does not faithfully reproduce human teeth, making their use unfavorable in preclinical subjects³. There is also the need for the use of teeth in scientific research. According to Nassif *et al.*⁴, the use of human teeth for research purposes or to accomplishment of laboratory and clinical procedures should respect ethical and legal aspects, besides being a concern of researchers, teachers, students and the general population.

Accordingly, the way the acquisition of these dental elements takes place has been the object of scientific investigations^{1,5}, thereby signaling the need for a regulation and systematization of this practice. Despite advances in legislation, the illegal acquisition of human teeth still persists in our country, since teeth of unknown origin are commercialized without proven consent from donors. Freitas *et al.*¹ consider that the commercialization of human teeth reinforces the need for the organization of a Human Tooth Bank (HTB), in order to help us to obtain the necessary material in preclinical practice and to ensure biosafety in the handling of these materials considered as high biological risk.

In the current context and considering the

legislation in force, the terms biobank, biorepository and tooth bank should be distinguished. Biobank is an entity designed to store and to distribute biological samples of certain species of microorganisms, blood, umbilical cord, tumor and normal tissues, cells and genetic material, and can contribute towards clinical care activities. In turn, biorepository is a place where human biological material is collected and stored for a short period of time, usually during the development of a specific research project⁶. Finally, human tooth bank is the space intended to collect, to prepare, to disinfect, to handle, to select, to preserve, to catalog, to stock, to grant, to lend, to manage, to store and to distribute human dental elements for teaching and research purposes, providing security and legality in this use and considering the ethical and legal aspects involved⁶.

According to Gomes *et al.*⁷, exodontia is still common in public and private dental clinical environments, without, in most cases, an appropriate destination for the extracted element. Accordingly, dentists, teachers and students should be aware of the obligations, ethical principles and legal aspects that regulate the disposal of teeth, thereby seeking, through processes of awareness, the ethical and scientific maturity for forwarding these dental elements to a Tooth Bank.

Despite the requirement of current legislation, which regulates the use of any human organ, teachers request natural teeth from students and are not always attentive to their origin. Thus, indirectly, they contribute to illegal commerce. As a result, there is a need for the institutionalization of actions focused on this topic, favoring the appreciation of the dental element and the development of preclinical experiments and/or research that comply with the bioethical criteria linked to this issue, either by teachers or by students⁸⁻¹⁰.

This study investigated the knowledge of teachers and students of a Dentistry course about

the ethical and legal aspects that involve the acquisition, use and disposal of human dental elements applied in teaching and research practices, with a view to supporting institutional decision-making processes related to this topic.

2 METHODOLOGY

This study is characterized as being of the observational, cross-sectional and descriptive

type. We used a semistructured questionnaire (figures 1 and 2) with objective and subjective questions as a data collection tool, which was applied to teachers and students from the 2nd period of the Dentistry course. The population of students was thus defined due to the fact that, only from the 2nd period of the course onward, they make use of extracted dental elements for preclinical study and training.

<p>1. For you, the dental element before the legislation is recognized or identified as: <input type="checkbox"/> Appendix <input type="checkbox"/> Tissue <input type="checkbox"/> Organ <input type="checkbox"/> Unaware <input type="checkbox"/> There is no law dealing with this</p> <p>2. For you, what would be the order of importance of these structures of the human body? List, according to their importance, with 1 being the most important and 5 being the least important. <input type="checkbox"/> Nail <input type="checkbox"/> Finger <input type="checkbox"/> Heart <input type="checkbox"/> Skin (as a whole) <input type="checkbox"/> Tooth</p> <p>3. In what area of your academic training did you need human teeth extracted for the development of laboratory activities? <input type="checkbox"/> Anatomy and dental sculpture <input type="checkbox"/> Cosmetic Dentistry <input type="checkbox"/> Endodontics <input type="checkbox"/> Research <input type="checkbox"/> None <input type="checkbox"/> Others _____</p> <p>4. If yes, how did you obtain these dental elements? <input type="checkbox"/> Through purchase <input type="checkbox"/> Dental Offices <input type="checkbox"/> Health Units <input type="checkbox"/> Other _____</p> <p>5. Are you aware of any regulation regarding the acquisition of extracted human teeth? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>6. Still on this topic, are you aware of any way of commercialization of extracted dental elements? <input type="checkbox"/> No <input type="checkbox"/> Yes; Which are? _____</p> <p>7. In your teaching practice, do you use human dental elements for research and/or teaching? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>8. Even if you do not use it, are you aware of how these dental elements are obtained? <input type="checkbox"/> Surgery subjects <input type="checkbox"/> Health units and/or private dental offices <input type="checkbox"/> Third party purchases <input type="checkbox"/> Unaware <input type="checkbox"/> Other _____</p> <p>9. Do you consider that there is a biological risk involved in the handling of extracted dental elements? <input type="checkbox"/> No <input type="checkbox"/> Yes; Which are? _____</p> <p>10. If you use human dental elements extracted in teaching practice, do you recommend any prior cleaning / disinfection method? <input type="checkbox"/> No <input type="checkbox"/> Yes; Which are? _____ <input type="checkbox"/> I do not use extracted human teeth</p> <p>11. Are you aware of the ideal destination given to extracted teeth in dental practice? <input type="checkbox"/> Common waste <input type="checkbox"/> Hospital waste <input type="checkbox"/> Unaware <input type="checkbox"/> Others: _____</p>
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Figure 1. Questionnaire applied to teachers

Term: () 2nd () 3rd () 4th () 5th () 6th () 7th () 8th () 9th

1. For you, the dental element before the legislation is recognized or identified as:
 Appendix Tissue Organ Unaware There is no law dealing with this
2. For you, what would be the order of importance of these structures of the human body? List, according to their importance, with 1 being the most important and 5 being the least important.
 Nail Finger Heart Skin (as a whole) Tooth
3. In what area of your academic training did you need human teeth extracted for the development of laboratory activities?
 Anatomy and dental sculpture Cosmetic Dentistry Endodontics Research None
 Others _____
4. If yes, how did you obtain these dental elements?
 Through purchase Dental Offices Health Units
 Other _____
5. Are you aware of any regulation regarding the acquisition of extracted human teeth?
 Yes No
6. Still on this topic, are you aware of any way of commercialization of extracted dental elements?
 No Yes; Which are? _____
7. In your opinion, what is the ideal way for the legal acquisition of dental elements?
 Surgery subjects Health units and/or private dental offices
 Third party purchases Other _____
8. Do you consider that there is a biological risk involved in the handling of extracted dental elements?
 No Yes; Which are? _____
9. Did you perform any previous cleaning of the teeth used in teaching activities?
 No Yes; Which are? _____
 I have never used extracted human teeth
11. Are you aware of the ideal destination given to extracted teeth in dental practice?
 Common waste Hospital waste Unaware Others: _____

Figure 2. Questionnaire applied to students

Before the application, the research goals were explained and the signature of the Free and Informed Consent Form (FICF) was obtained. This study was conducted after the issuance of a favorable opinion on the part of the Institutional Research Ethics Committee, under nº 2.453.24/2018. The data related to the objective responses were processed in spreadsheets and displayed as descriptive statistics (absolute and percentage distributions).

The data regarding the open questions were categorized and interpreted in a descriptive way. From the textual material generated by the responses

to the open questions, we raised three categories, as can be seen in the analysis plan (figure 3). Initially, we performed a fluctuating reading of the textual material produced by the responses to the open questions of the questionnaire, in order to reach a full approximation with the transcribed statements. Following that operation, we carried out a careful analysis by identifying the contents with equal or very similar meanings, generating a common term representative of its semantic content (category), thereby constituting the categorization process. The categorization consists in grouping textual elements that have semantic similarity or meanings that keep

the same essence among themselves. In turn, the category consists of selecting word or expression that alone represents the essence of the grouping of words or lines. From the categories, we abstracted

the core idea of the lines and prepared a collective speech, written in the first person of the singular, so that the thought of a group or collectivity appears as if it were an individual speech^{11,12}.

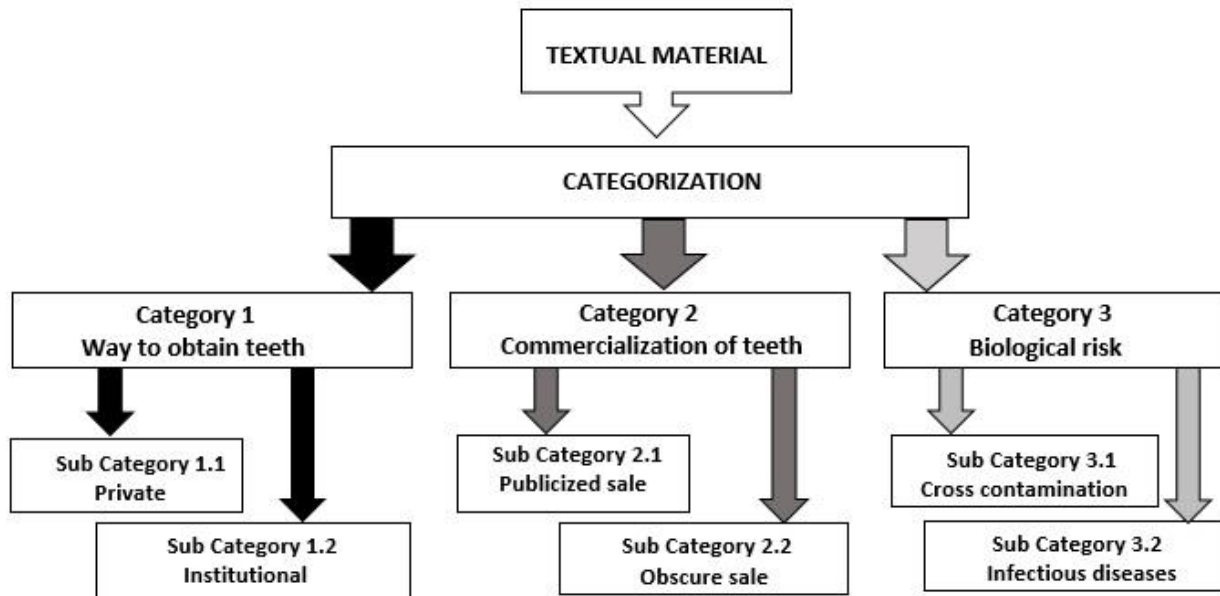


Figure 3. Analysis plan for the categories derived from the textual material generated from the open questions

Accordingly, we raised three categories from the textual material transcribed from the questionnaires of teachers and students: category 1 – way to obtain the used teeth (generated two subcategories: private and institutional), category 2 – commercialization of teeth (originated two subcategories: publicized sale and obscure sale) and category 3 – biological risk (raising two subcategories: cross contamination and infectious diseases). The description and interpretation of these categories was carried out in accordance with the criteria of the Collective Subject Speech (CSS)¹².

CSS is a technique of collective thought construction that reveals what people think, how they attribute meaning to their thoughts and at the same time give their opinions about a given theme, thereby revealing from individual opinions a

peculiar construction of a socially shared speech expressed in the first person of singular, although it represents the collective¹³.

3 RESULTS

Of the total of 55 teachers, 51 responded to the questionnaire, equivalent to 92.72%. Regarding the students, of the total of 288, 201 took part in the survey, totaling 74.3%, distributed from the 2nd to the 9th periods as follows: 15.92% from the 2nd; 14.43 from the 3rd; 17.41% from the 4th; 6.97 from the 5th; 16.92 from the 6th; 10.45 from the 7th; 10.45% from the 8th; and 7.46% from the 9th.

Table 1 displays the verbalizations of teachers and students regarding the open questions and the question related to the commercialization of teeth, which led to the elaboration of shared narratives.

Concerning the understanding of the dental teachers and 72.60% of the students considered it as element before the legislation, 72.55% of the an organ (table 1). The area of training that most

Table 1. Verbalizations of interviewees in open questions according to the raised categories, core idea and Collective Subject Speech

CATEGORY	CORE IDEIA	COLLECTIVE SUBJECT SPEECH	
<p>Way to obtain the teeth</p> <p>“Voluntary donation (2) ... at the time of graduation there were no regulations for this ... health units ... dental offices ... the ideal way is with the authorization of the patient or legal responsible, regardless of the place of acquisition ... the Code of Dental Ethics prohibits the commercialization of human tissues and organs ... with the authorization of the patient ... donation by the patient ... with the authorization of the patient duly documented ... tooth bank of in the university”.</p>	<p>Voluntary donation</p>	<p>At the time of my graduation, there was no regulation for that matter. So, we got the teeth in the health units and dental offices of friends. Due to the fact that the Code of Dental Ethics prohibits the commercialization of human tissues and organs, the ideal way to obtain extracted teeth is with the authorization of the patient or legal responsible, regardless of the place of acquisition.</p>	
<p>Commercialization of teeth</p> <p>“Dental equipment stores... health units (3)... hidden purchases in cemeteries (2)... students undertake illegal commercialization... through the Internet... sales for research ... sales in dental offices ... everyone knows of the existence sales webpages” ... the right thing is to get teeth with extraction recommended by endodontic treatment ... an alternative is to get donations”.</p>		<p>Sale of teeth</p>	<p>Although commercialization is prohibited, students get teeth for their activities by donation, both in college subjects and in health units and private dental offices. They also get them in cemeteries and through purchases on the Internet at the sales webpages.</p>
<p>Biological risk</p> <p>“Contamination and cross infection (18) ... infectious diseases ... diseases that are transmitted via blood and body secretions, if the handler has some entrance door ... if the ‘DO’ (Dental Office) is not protected, you may be contaminated with HIV, hepatitis, among others ... dissemination of bacteria, if a correct asepsis is not performed ... there are legal and biological risks because it is against the Law, i.e., the commercialization of human organs”.</p>		<p>Cross infection</p>	<p>There are two types of risk: biological risk, cross contamination and transmission of infectious diseases. There is also the legal risk, because the commerce of human organs is against the law. There is a risk of contamination by microorganisms and blood, besides the transmission of infectious diseases, especially those transmitted through blood and body secretions. Accordingly, if the dentist is not protected, he/she may become contaminated with HIV, hepatitis and other diseases.</p>

Uses human teeth in laboratory activities is Endodontics (49.35%), followed by Anatomy and Dental Sculpture (9.09%) and Cosmetic Dentistry (3.46%).

As for the way to obtain the elements, 39.49% of the students acquired the teeth in dental offices and clinics and 33.76% in health units, while 3.82% reported the acquisition by means of purchases. Of

the 22.93% who opted for other ways of acquisition, 63.14% achieved them through some particular

origin and the others through institutional origin, but not regulated.

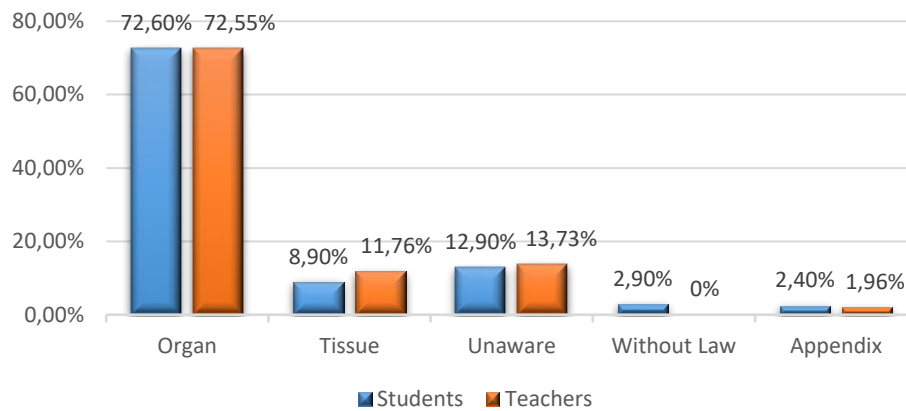


Chart 1. Understanding of teachers and students of the investigated course about the recognition of extracted dental elements before the law.

The collective speeches of teachers and students expressed below illustrate the question related to the way to obtain teeth.

“At the time of my graduation, there was no regulation for such matter. So, we got the teeth in the Health Units and dental offices of friends” (Teachers).

“As the Code of Dental Ethics prohibits the commercialization of human tissues and organs, the ideal way to obtain extracted teeth is with the authorization of the patient or legal responsible, regardless of the place of acquisition” (Students).

As for the ideal way for acquisition of teeth, illustrated by the few speeches at stake, the students responded: subject of surgery (58.72%), in health units (31.06%) and pointed out other ways of acquisition (8.51%). Of these, 28.57% highlighted the tooth bank as the ideal way (chart 2).

“The ideal/right way is mainly through donations of those teeth with extraction recommended by orthodontic treatment, besides the acquisition from tooth banks” (Teachers).

“The acquisition must be from the voluntary

donation by the patient, with this donation/authorization duly documented. Another alternative is to acquire them in a tooth banks at the University” (Students).

Considering the legal aspects, 68.63% of the teachers and 20.10% of the students claimed that they were aware of the existence of a regulation about the acquisition of extracted human teeth. When asked if they knew about any way of commercialization, 19.61% of the teachers and 7.96% of the students, respectively, recognized the existence of the commerce of dental elements, although in the justification for the knowledge of these sources, only students showed their opinions.

“Although the commercialization is prohibited, students get teeth for their activities in health units, private dental offices, cemeteries and through purchases on the Internet in sales webpages” (Students).

When asked about the existence of some biological risk in the handling of dental elements and care prior to their use, 78.61% of the students are aware that there is a biological risk and 86.18% perform some type of prior cleaning of these elements, where disinfection with sodium

hypochlorite appeared as the most used method (43.40%), followed by immersion in hypochlorite associated with subsequent sterilization (10.38%), autoclave (5.66%), 70% alcohol (3.77%) and chlorhexidine (3.77%). As for the teachers, 90.20% consider that there is a biological risk and 100% of those who use dental elements in their teaching practice recommend some type of prior cleaning/disinfection, where thymol appeared as the most cited method (15%), followed by autoclave sterilization (10%). The following lines, translated from the collective speech of the interviewed segments, illustrate these thoughts.

“Yes, there are two types of risk: biological risk, cross contamination and transmission of infectious diseases. There is also the legal risk, because the commerce of human organs is against the law” (Teachers).

“There is a risk of contamination by microorganisms and blood, as well as transmission of infectious diseases, especially those transmitted via blood and body secretions. Thus, if the dentist is not protected, he may become infected with HIV, hepatitis and others” (Students).

“Previously, there should be washing with

enzymatic detergent, immersion in sodium hypochlorite and sterilization in autoclave” (Students).

“Other forms of prior disinfection of extracted teeth are: immersion in 0.12% chlorhexidine solutions and sterilization; sodium hypochlorite plus 70% alcohol and 70% alcohol under friction” (Students).

When asked about the ideal destination for extracted teeth, 40.3% of the students do not know how the teeth are discarded, 39.30% believe it is in hospital waste and 17.90% in common waste. Only 0.49% of the students cited “tooth bank” as the destination given to these elements. As for the teachers, 55.56% responded “hospital waste”, 11.11% did not know what to respond and 33.33% cited another form of disposal. Of these, 83.33% pointed out “tooth bank” as the ideal destination for disposal (chart 3). Few reports illustrate this aspect. Depending on the level of knowledge demonstrated by the students, there was no allusion to this aspect.

“Ideally, we would donate the extracted dental elements to a Tooth Bank, but in the absence of one, I can’t say anything about the ideal destination” (Teachers).

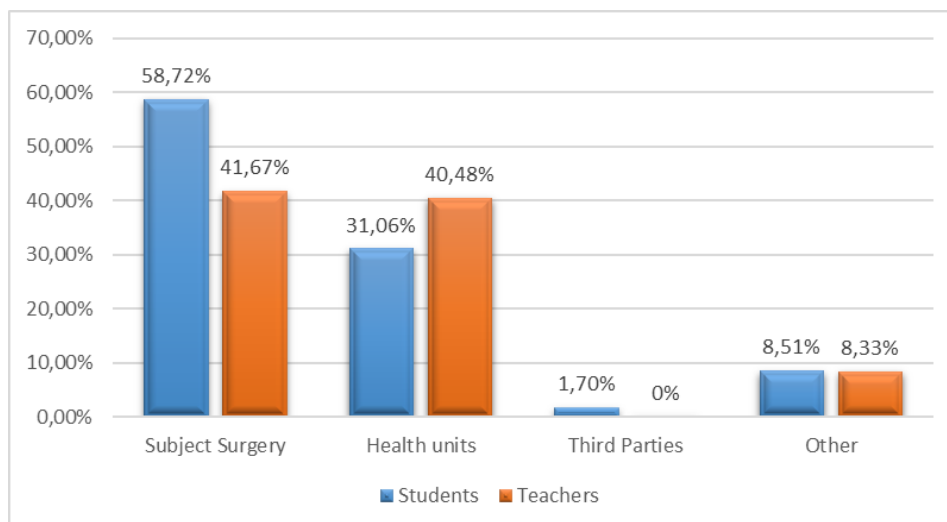


Chart 2. Ideal way to obtain the extracted dental elements according to students and teachers

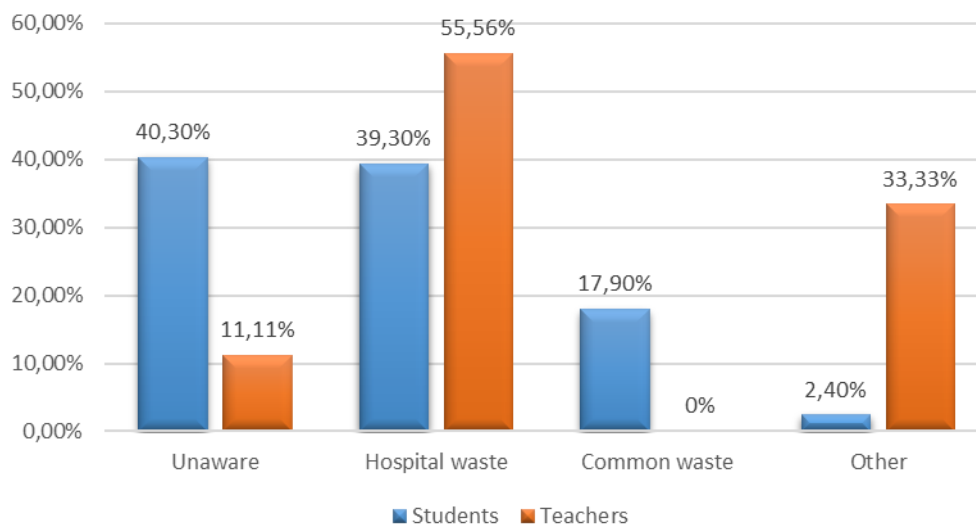


Chart 3. Ideal destination given to dental elements extracted in dental practice according to students and teachers

4 DISCUSSION

The data obtained highlighted the existence of a similar understanding between students and teachers of the investigated Dentistry course, when the two categories showed to have the same understanding of the dental element as an organ, which is in line with the current legislation. These results are in accordance with the findings of Pinto *et al.*⁸, who found a similar proportion of knowledge (90%) among the surveyed teachers and students. The understanding of the tooth as an organ is based on the fact that it is consisted of variable proportions of different tissues, has a defined shape and plays specific functions⁹. This fact is legitimated by the Transplantation Law of 1997, when teeth started to be recognized as organs, making it necessary for the donor to authorize their use, through the signature of FICF¹⁰.

Although the results of this study signalize that there is an understanding, even if dispersed, of the legal value of the tooth as an organ by teachers and students, this condition has not been confirmed in the other formulated questions,

thereby showing that the knowledge is not yet consolidated.

Moreover, we found that, of the subjects that used extracted human dental elements, Endodontics was the most cited, with 49.35% of the responses. A similar result (87.70%) was observed by Freitas *et al.*¹ in a study on the use of human teeth in Dentistry Courses in Brazil. However, in most cases, students are instructed to seek human teeth for academic use without due clarification regarding the ethical and legal aspects involved in this acquisition¹⁴⁻¹⁶.

Approaches on this theme are made in the investigated course only in the subject of Legal Dentistry, offered in the 8th period, when all the curricular components of preclinical training, especially Endodontics, have already been paid up. Due to lack of knowledge, this leads the students to commit ethical infractions and to disobey the Brazilian legislation. This is emphasized in the responses regarding the knowledge of a regulation about the acquisition of human teeth, when 79.90% claimed that they were unaware of any regulation for that matter.

In contrast, 68.63% of the teachers recognize the existence of a regulation, leading to the belief that such knowledge is not being shared with the student body at the appropriate time or during the process of teaching the curricular components offered in the earlier periods of the course.

Regarding the acquisition of dental elements by students, dental offices and clinics (39.49%) and health units (33.76%) were the main sources of acquisition, which is corroborated by the findings of Leite *et al.*¹⁴. We can note a disagreement between the reality of this acquisition and the knowledge that teachers have about this process, since 41.67% of the teachers believe that the subject of Surgery is the main source of acquisition of these dental elements. Curiously, this perspective was verified in the response of the students about the ideal way to obtain the teeth, since 58.72% of the students highlight the subject of Surgery as the main source of acquisition, thereby revealing ignorance of what the Brazilian legislation advocates regarding the requirement of a Human Tooth Bank (HTB)^{16,17}.

The commercialization of human teeth in higher education institutions has still been a common practice¹⁸⁻²⁰. Nevertheless, only 7.96% of the students and 19.61% of the teachers recognized the existence of a commerce of dental elements. These findings are corroborated by what was observed by Felipe *et al.*¹⁶, when 11% of the interviewed students reported the existence of some kind of commerce of teeth. Costa *et al.*¹⁰ pointed out the existence of the sale of dental organs among academics, with decreasing rates over time. Moreover, they stated that, despite the low response rate concerning the commercialization of dental elements, the illegal commerce of teeth is not only characterized by the act of buying and selling, but in its irregular acquisition, which was observed in the present study, since most teeth were acquired in health

units and private dental offices through donation, but without the knowledge and/or consent of the patient or legal responsible.

Because it is a human organ, protected by Article 5 of Law nº 9.434/97 (Transplantation Law), the failure to comply with legislations that regulate organ transplantations is regarded as a crime. Article 6 asserts that it is a contravention to remove, *post-mortem*, organs, tissues and parts of the human body from unidentified persons. In its Article 15, the commerce of organs envisages a custodial penalty of 3 to 8 years of reclusion and a fine. In addition, the Code of Dental Ethics, in its Chapter XVII, warns that it constitutes an ethical infraction, and may determine penalties ranging from a simple confidential caveat to the very termination of professional practice¹⁷.

Regarding biosafety, most students (78.61%) and teachers (90.20%) are aware of the existence of biological risk during the handling of extracted human teeth and the mentions were represented as “contamination”, “infection” and “disease”. Additionally, 86.18% of the students and 100% of the teachers undertake some type of cleaning, disinfection or prior sterilization of these elements. However, there was a great variability in the responses regarding the used methods and products, especially among students, where sodium hypochlorite was the most used product (43.40%). This fact shows the lack of a well defined protocol for disinfection/sterilization, which is reinforced by the lack of harmony with the response of teachers who highlight thymol as the main method for disinfection. Similar results regarding this lack of consensus were observed by Pimentel *et al.*¹⁸. The lack of standardization may entail a risk of contamination by pathogens, since the presence of these elements was confirmed by Pantera and Shuster¹⁹. According to these authors, in addition to the presence of pathogens, the preparation of extracted teeth generates a microbial aerosol

capable of causing numerous infectious diseases. According to Nassif *et al.*⁴, moist heat without a drying process is the best means of sterilization of extracted teeth, not significantly altering their physical-chemical properties.

Concerning the ideal destination given to extracted teeth, 55.56% of the teachers and 39.30% of the students believe it is hospital waste. Surprisingly, 40.3% of the students state that they do not know about this topic. Only 0.49% of the students and 24.84% of the teachers highlighted a Human Tooth Bank as the ideal destination for disposal. This result reveals that both students and teachers have little knowledge about the role of a tooth bank and its activities, as well as its importance as the main receiver of dental elements. Moggioni *et al.*³, in a study conducted at the Fluminense College, observed that more than 76.8% of those surveyed were unaware of the operation of a tooth bank.

It is clear to us that there is a need to institutionalize actions focused on the acquisition and management of human dental elements for teaching and research purposes, appropriate to the legislation in force in our country, through the implementation of a Human Tooth Bank.

A tooth bank is an instance that has the functions of capturing, sterilizing, storing, lending and providing dental elements to both students and researchers, through request and commitment letters of citation, in order to hold a control of its final destination^{19,20}. Therefore, we should emphasize the need for the legal order of the institutionalization of a tooth bank in the educational units that routinely use the dental elements in teaching and research activities, with a view to avoiding that the institution disregards the legal assumptions that regulate these activities.

Accordingly, we understand the need for an adequacy of the contents related to this theme, in order to introduce them in curricular

components of the earlier periods of the curricular structure, which should be resumed in a cross-sectional way throughout the course. The appreciation of the area of training in Legal Dentistry and the strengthening of Human Tooth Banks comprise the best way to adapt the use of dental elements necessary for professional training, within the ethical and legal requirements, besides providing the biologically safer use of teeth¹⁷. Therefore, the strength of this study is grounded on its contribution to the improvement of teaching, dissemination of the concepts of ethics in research and the current Brazilian legislation. The implementation of a HTB is an effective way to combat irregularities in the use of dental elements for teaching and research in Dentistry, thereby provoking a positive impact on the ethical and citizen education.

5 CONCLUSIONS

There is little knowledge among teachers and students of the investigated course about the acquisition, handling and disposal of extracted human teeth, which leads us to suggest that this theme should be discussed in the context of the Brazilian institutions of dental education, taking into account the use of dental elements in their teaching and research practices.

Biosafety aspects, handling, use and biological risk are situations that need to be part of the contents of curricular components in a cross-sectional way, besides the incentive to the culture of donation, thereby naturally preserving the identity of the donor. These contents should be worked from the earlier periods, in such a way as to ensure the consolidation of attitudes that appreciate the dental element as an organ, protect the student and the teacher, users of these elements in their daily lives, so that they know and comply with the Brazilian legislation on biobanks, biorepositories and human tooth

banks.

RESUMO

Conhecimento de docentes e discentes de um curso de Odontologia sobre os aspectos legais que envolvem a utilização de dentes humanos extraídos

O estudo verificou o nível de conhecimento do corpo docente e discente de um curso de Odontologia acerca dos aspectos éticos e legais envolvidos na obtenção e manipulação de elementos dentários humanos extraídos. Foi aplicado um questionário semiestruturado aos docentes e discentes a partir do 2º período, por se constituírem os usuários de dentes humanos nas atividades de ensino pré-clínico e de pesquisa. Os dados foram analisados utilizando-se a estatística descritiva para as perguntas fechadas, além do Discurso do Sujeito Coletivo para as perguntas abertas. Participaram 51 docentes de um total de 55 e 201 discentes do total de 288, dos quais 72,55% e 72,60%, respectivamente, reconheceram o elemento dentário como um órgão. Quanto à forma de obtenção, 39,49% dos discentes relataram obter os dentes em consultórios odontológicos e 33,76% em unidades de saúde, sendo que 91,04% destes e 80,39% dos docentes desconhecem qualquer tipo de comercialização. Em relação à biossegurança, tanto os discentes (78,61%) quanto os docentes (90,20%) reconhecem o risco biológico na manipulação desses elementos e realizam algum tipo de desinfecção. Considerando-se os aspectos legais, 68,63% dos docentes e 20,10% dos discentes afirmaram ter conhecimento da existência de uma regulamentação, o que não se refletiu de forma explícita nas respostas obtidas. Do material textual gerado pelas perguntas abertas emergiram três categorias (forma de obtenção dos dentes utilizados, comercialização de dentes e risco biológico), interpretadas à luz de discursos agregados dos segmentos (docentes e discentes) entrevistados. Pode-se concluir que tanto docentes quanto discentes apresentaram conhecimento incipiente sobre os aspectos legais que envolvem a obtenção e manipulação de elementos dentários humanos extraídos.

Descritores: Bioética. Legislação. Dente. Agentes Biológicos.

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