Monique Cavalcante Borges Leal<sup>1</sup>, Francisca Sandra Cardoso Barreto<sup>2</sup>, Evellyn Batista da Silva Flizikowski<sup>3</sup>, Wanessa Rodrigues Nascimento<sup>4</sup>

## Abstract

The global diffusion of technologies, used by people today, including professionals and students in health institutions, makes it easy to capture and reproduce patient images, often without the prior obtaining of an informed consent. It was intended to obtain an expanded assessment of students' knowledge about patient image rights. This was an observational study, with a quantitative approach performed with 263 students from dentistry and medical courses. Among the interviewees, 115 (43.7%) students reported having photographed or filmed a patient examination or medical record at some point and 192 (73%) participants reported that they did not know about any legislation regarding inappropriate use of images. It could be concluded that there is a gap in the training of these students in the use of patient images since the capture of images is present during the entire graduation course and, most of the time, the consent of the patient was obtained in an unusual way. **Keywords:** Medical ethics. Bioethics. Image. Informed consent.

### Resumo

### O conhecimento dos estudantes sobre direito de imagem do paciente

A difusão global das tecnologias, utilizadas inclusive por profissionais e estudantes em instituições de saúde, facilita a captura e reprodução de imagens do paciente, muitas vezes sem prévio consentimento informado. Esta pesquisa pretendeu avaliar de forma ampla o conhecimento de estudantes sobre direitos de imagem do paciente. Trata-se de estudo observacional e com abordagem quantitativa, realizado com 263 estudantes dos cursos de odontologia e medicina. Entre os entrevistados, 115 (44%) declararam ter fotografado ou gravado em vídeo algum paciente, exame ou prontuário em determinado momento, e 192 (73%) relataram desconhecer a legislação a respeito do uso de imagens. Conclui-se que há lacuna na formação desses estudantes quanto a essa questão, já que esse procedimento está presente em toda a graduação e, na maioria das vezes, o consentimento do paciente é obtido de maneira não usual.

Palavras-chave: Ética médica. Bioética. Fotografia-Paciente. Consentimento informado.

#### Resumen

#### Conocimiento de los estudiantes sobre derecho de imagen del paciente

La difusión global de las tecnologías, utilizadas incluso por los profesionales y estudiantes en las instituciones de salud, hace que la captura y reproducción de imágenes del paciente tenga lugar fácilmente, muchas veces sin la previa obtención del consentimiento informado. Se pretendió obtener una evaluación ampliada del conocimiento de los estudiantes sobre los derechos de imagen del paciente. Se trató de un estudio observacional, con un abordaje cuantitativo realizado con 263 estudiantes de las carreras de odontología y medicina. Entre los entrevistados, 115 (43,7%) estudiantes declararon haber fotografiado o filmado algún paciente, examen o historial en algún momento, y 192 (73%) participantes relataron no conocer ninguna legislación acerca del uso inadecuado de imágenes. Se puede concluir que hay una laguna en la formación de estos estudiantes frente al uso de imágenes del paciente ya que la captura de imágenes está presente durante toda la carrera de grado y, la mayoría de las veces, el consentimiento del paciente fue obtenido de manera no frecuente. **Palabras clave:** Ética médica. Bioética. Imagen. Consentimiento informado.

#### Aprovação CEP-FACID 55619616.0.0000.5211

1. Graduanda moniquecavalcante9@gmail.com – Faculdade Integral Diferencial (Facid DeVry) 2. Mestre fsandracbarreto@hotmail.com – Facid DeVry 3. Graduanda draevellynflizikowski@gmail.com – Facid Devry, Teresina/PI 4. Graduanda wanessa\_yo@hotmail.com – Universidade Estadual do Piauí (Uespi), Teresina/PI, Brasil.

#### Correspondência

Monique Cavalcante Borges Leal – Av. José dos Santos e Silva, 2.095, Centro CEP 64001-300. Teresina/PI, Brasil.

Declaram não haver conflito de interesse.

Digital technology evolves with great speed, and its rapid insertion in the daily life makes it very simple to capture, store and share images. It is a routine practice for health professionals, trainees, interns and students to store their care work or important cases in cameras or cell phones, without any embarrassment and, for the most part, without the consent of the patient. According to Carreiro<sup>1</sup>, this has harmed both patients and those responsible for capturing and disseminating such images, especially due to the lack of standardisation and institutional supervision.

New technologies, constantly used by students in health institutions, engender a new ethical confrontation in daily practice. Given the ease of registering and reproducing images or situations experienced by patients during their care, the need to obtain prior consent from patients or their caregivers is almost never remembered<sup>2</sup>.

Although the Federal Constitution<sup>3</sup> and the councils of some professions prohibit the use of unauthorised images of patients in a hospital environment, it is observed that the practice is common among some students. Currently, most of them have camera devices, which makes it easy to get and reproduce images from patients.

In this context, it is necessary to reflect, from the ethical-legal point of view, about the capture of images within health care units where patients are frequently exposed, sedated or unconscious. The scientific interest should be balanced with the principles of autonomy and beneficence of the individual, since recording or disseminating images without the patient's prior consent may constitute a legal and ethical violation.

The research was based on the following question: "what is the knowledge of medical and dental students about patient's image rights?" It was assumed that a large part of the interviewees, even with ethical-humanist knowledge about the subject, when sharing images exclude only the names of patients and disclose only a few characteristics, while still violating the patient's privacy laws.

The general objective of this study was to evaluate students' knowledge about patient's image rights. From this, the following specific objectives were sought: 1) to identify the classes and moments of the course in which these practices become routine; 2) to relate sociodemographic characteristics of students to the practice of capturing and reproducing image; 3) to associate the knowledge of the students of the biomedical area with the preservation of the image and its legal implications according to the period of the course; and 4) to correlate the theme with principles of bioethics and laws regulating the right of image.

# **Materials and methods**

The research was developed in accordance with the Resolution 466/2012 of the Conselho Nacional de Saúde (National Health Council), which deliberates on guidelines regulating research involving human beings<sup>4</sup>, and started after the approval of the Comitê de Ética em Pesquisa - CEP (Research Ethics Committee). It was an observational and transversal study of an applied nature and with a quantitative approach, since it aimed to discover and observe phenomena, classifying and interpreting the phenomena from statistical data in order to elucidate situations.

This research was carried out in classes at a private teaching institution in Teresina, Piauí, chosen by criterion of convenience. Among the randomly selected participants were medical and dental students enrolled in the first, second, fourth, seventh and eighth periods, all of them regularly registered in the medical and dental schools. All those who agreed to collaborate with the research signed an informed consent form. Students who were not associated with the institution and those who were absent from academic activities during the period of data collection were excluded from the study.

Participants were selected by cluster sampling. Based on a population sample of 500 students, a formula was found that would require 218 volunteers, with a confidence level of 95% and a sampling error of 5%. However, 263 were interviewed.

Data collection occurred between August and September 2016, through self-administered questionnaires with 12 objective and subjective questions. The instrument had been pre-elaborated by the researchers and contemplated sociodemographic aspects, as well as questions related to the students' knowledge about image capture and reproduction in hospital practice and its relationship with ethical and bioethical knowledge. The questionnaires were applied after explanation about their content, together with the informed consent form, followed by clarification of the risks and benefits.

The data obtained through the questionnaire were submitted to descriptive statistics and analysed

by the Statistical Package for the Social Sciences (SPSS), version 20.0. As for the quantitative data, they were represented in tables and graphs using Word and Excel software.

# **Results and discussion**

The results of the study were classified according to: average age and gender of the students; their knowledge about image capture and reproduction in a hospital environment; frequency of students who have already photographed or recorded on video any patient, exam, medical report, etc., observing at what point in time these practices increase, as well as the reason and type of consent used; student's perception of the individual's image; and knowledge about the code of professional ethics and legal provisions applied to the topic.

Medical and dental students from the first, second, fourth, seventh and eighth periods were randomly selected, making for a total of 263 questionnaires evaluated. The minimum age of the students was 16 years old and the maximum, 31, with a mean of 23.5 (SD = 4.76) (Table 1). There was a predominance of females, 60% (n = 159), against 39% (n = 104) males.

Emphasis is placed on the significant participation of women in the group of health professionals. They are already prevalent among younger doctors. In addition, the growth of the medical population has been undergoing changes with the advancement of feminising and rejuvenation in Brazil<sup>5</sup>.

Women's insertion in dentistry occurred slowly, accompanying the development of society. From the 1970s onwards, women's interest in this field gradually increased, concomitantly with the awareness and transformation of women's social role in the search for better living conditions. The intensification of the feminist movement in that decade and the greater feminine participation in the public spaces collaborated for this, stimulating more and more this search for insertion in the job market instead of staying home and doing house work<sup>6</sup>.

**Table 1.** Age distribution of the evaluated students(Teresina, 2016)

to attract on	Age (years)						
Institution	М	SD	Max	Mín	Total		
Private IES	23.5	4.76	31	16	263		

M: mean; SD: Standard Deviation; Max: maximum; Min: minimum. Among the 263 participants, 51% (n = 134) attended medicine and 49% (n = 129) dentistry. This distribution occurs due to the characteristics of the research universe related to vacancies in the institution. When asked if they had already photographed or recorded videos of a patient, exam or medical report at the time of the course they were in, 44% (n = 115) of the respondents answered yes.

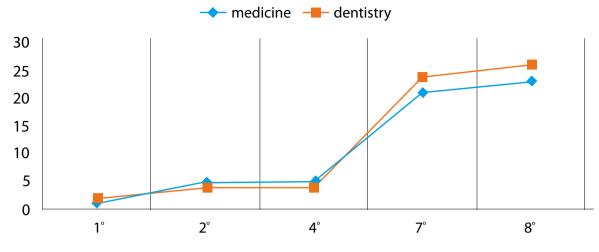
The Pearson's chi-squared test ( $\chi^2$ ) was used to associate sociodemographic characteristics and the capture of photos / videos. It was evidenced that this practice is not related to the gender (p =0.6723), however it is related to the age group, since the majority of the students who confirmed taking images from patients are  $\leq 21$  years (p = 0.0154).

In order to verify the relation of the course with the number of students who captured images in the searched context, the  $\chi^2$  test was used. It was demonstrated that the practice is not influenced by this variable (p = 0.37154), and occurs equally in both courses. The capture and sharing of images stems from a more constant contact with the patient, as well as the number of procedures and comparisons of interventions and treatment evolution.

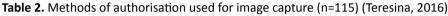
It can be inferred that the image capture in dentistry and medicine courses starts in the second period, when it starts the contact between students and patients (according to the curriculum for the course) and it increases in the last semesters, in which the student-patient relation becomes even more frequent. The practice or recording patients images appeared in the course in a growing manner, as shown in Graph 1.

Among the students who answered positively about the image capture (n = 115), most reported having requested verbal authorisation 63% (n = 72), and only 23% (n = 26) requested written permission or recorded the practice in the medical report 10% (n = 11) (Table 2). Despite the authorisation obtained in an unusual way, the majority of the students did not explain to the patient the purpose of the image and where it would be displayed. In addition, the image was often published or used in a manner different from that which had been requested.

As indicated, most of the participants requested verbal authorisation 63% (n = 72). However, the ideal method is the written one, since it allows documenting consent and serves as legal proof in defense of the patient and the professional, if necessary. In addition, currently both professional Congresses and magazines require a consent form before the publication of images.



Graph 1. Evolution of image capture among courses surveyed (Teresina, 2016)



		Frequency				Total	
Variables	Yes		No		Iotai		
	n	%	n	%	n	%	
Did you ask for any verbal authorization from the patient or the person responsible to take the images?	72	63%	43	37%	115	100%	
Did you ask for any written authorization from patient or the person responsible to take the images?		23%	89	77%	115	100%	
Did you register the authorization in the medical record of the patient or person responsible to take the images?	11	10%	104	90%	115	100%	

n: absolute frequency; %: relative frequency.

Such assertions are confirmed in the thinking of Gracindo<sup>7</sup>. According to the author, this document must have the freely and spontaneous acceptance of the patient in order to validate the authorisation. In addition, it is necessary for the patient to complete and sign the form, in order to prove his ability to understand and consent to everything in it. To the professional, in turn, it is necessary to clarify the information verbally, in a satisfactory and appropriate way.

Informed consent is the verbal communication established in a clear and objective manner on all events related to treatment (procedure, diagnosis, risks and benefits), so that the individual is aware of the events when submitting or refusing any intervention. It must be accompanied by written consent, which consists of the signature of the patient or person responsible in a document with all the technical information of the procedure in guestion which has already been discussed verbally<sup>8</sup>.

It is worth mentioning that the medical record is a very useful instrument in the defense of the professional as it is a legal document. All the procedures to which the patient should be submitted, as well as the established professional relationship and the patient's reaction to the procedures should be carefully written in the medical record.

Among the main reasons for image capture in an academic area are: case report 56% (n = 64); discussion with colleagues 35.7% (n = 40); and publication of papers in journals or conferences 22% (n = 25). Other reasons include the presentation of seminars in academic activities (n = 4) and remembrance or publication in social networks (n = 8), totalling 10%.

In this study, the results were similar to those of Caires et al.<sup>9</sup>, since it was identified that the recording of images is growing among students (40%) and that the main purpose of this practice was educational (94% of the images were intended for presentations and publications). A similar result was obtained in a survey in the Area of Plastic Surgery in the United Kingdom, in which 30 of the 42 interviewees took photographs of their patients<sup>9</sup>.

These images were made to integrate medical records and also had educational purposes, as well as publication and the compiling of personal libraries. Consent was generally obtained, but often only verbally. Processing, storage and security measures have highlighted the potential risks of breach of confidentiality. Respondents were often unaware of aspects related to the Código de Conduta de Confidencialidade do Serviço Nacional de Saúde (National Health Service Code of Conduct for Confidentiality), the Lei de Proteção de Dados (Data Protection Act) and the need to register with the Comissão de Dados (Data Commission).

Another study<sup>10</sup>, which aimed to evaluate the awareness of oral pathologists on various aspects of medical photography, showed that the images were mainly intended for publication, medical documentation and education. A significant number of postgraduate students and faculties of oral pathology did not receive training on the matter or didn't go through publications about the use of photographs in clinical practice. The consent to record the patient's image was obtained by many of the respondents, but again in verbal form only. Most faculties (19%) and 21.1% of postgraduate students were unaware of the deleterious effect of image editing. According to the authors of the mentioned study, firm and sensible instructions concerning image storage, sharing and accessibility were not yet created.

Most of the participants in this study (53% n = 139) stated that they had already witnessed someone photographing or recording a patient without authorisation during a procedure. According to Finkler, Caetano and Ramos<sup>11</sup>, the professor is an example to be followed by the students, both in the knowledge of the techniques and in the ethical posture when faced with habitual situations in the care of patients. When observing professors and other professionals of the area, the student tends to assimilate their behaviours. The study shows the negative posture of some colleagues, professionals and professors in the area, since 81% of the students said they had witnessed someone taking photos or recording videos without asking the patient for authorisation during a procedure.

All participants in this study stated that the patient image should be preserved, and 98.5% (n = 259) agreed that the capture of images without consent consists in violation of the individual's autonomy and privacy. Complementing, 83% (n = 218) responded that taking images from patients without prior authorisation generates legal implications.

As for the knowledge of provisions in the Brazilian Federal Constitution<sup>3</sup>, the Código Civil (Civil Code)<sup>12</sup> and the Código Penal Brasileiro (Brazilian Criminal Code) <sup>13</sup> on image rights, it is observed that the majority of respondents, 73% (n = 192), do not know the specific legislation applied to the subject. The same is true of the codes of professional ethics in each area as their topics on ethics are unknown by 53% (n = 140) of the students.

Ethical issues involving patient images have been widely discussed, and have repercussions on existing legislation. Considering this, the Conselho Federal de Medicina - CFM (Federal Council of Medicine)<sup>14</sup> changed the norms of professional conduct in relation to the patient's image. According to the new Resolution CFM 2126/2015<sup>14</sup>, which reformulates that of 2011, doctors can not divulge selfies in work situations or during procedures, especially to compare results of aesthetic interventions.

The rules were modified after claims from users who had their privacy violated. As published <sup>15</sup>, what most determined this change were the various photographs released during surgical procedures and births, which had shown patients in embarrassing situations.

The current Código de Ética Odontológica in Brazil (Dental Code) also sets standards for the use of patient images. Its chapter VI, article 14, item III, establishes professional secrecy, characterising as ethical infraction to refer to identifiable clinical cases, to display patients, their image or any other element that identifies them in the media or under any pretext, unless the dentist is in the teaching profession or in scientific publications, in which, the authorisation of the patient or the person responsible, allows the dentist to display the image or dental report with didactic-academic purposes<sup>16</sup>.

Chapter XVI, Section I and III, of the same code includes norms for the use of images on advertising, publicity and scientific publication. According to article 34, item VI, it is an ethical infraction to disclose a name, address or any other element that identifies the patient, except with their free and informed consent, or the consent of the person responsible (...) in compliance with the other provisions of this Code<sup>" 16</sup>. And article 38, item III, defines as an ethical infraction "to publish, without written authorisation, any element that identifies the patient while preserving the dentist's privacy<sup>16</sup>.

Even characterising moral damages and violation of privacy, there are law scholars, such as Sarmento<sup>17</sup>, Barroso<sup>18</sup> and Marinela<sup>19</sup>, who defend the importance of the the free circulation of ideas in a Democratic State of Law as a matter of public interest. In this perspective the freedom of expression should prevail if the disclosure

Research

of an image is justified. According to Bandeira de Mello<sup>20</sup>, the rule of law is based on the normative characterisation of certain interests pertinent to the society, and not to individuals in a singular way. In administrative law, this characterisation consists of discipline sustained by the principle of superiority of the public interest over the private.

However, The image right of the individual is protected by professional codes of ethics of each profession, specific legislation<sup>12,13</sup> and the Direito do Consumidor (Consumer Law)<sup>21</sup>. Thus, in addition to causing irreversible damage and great embarrassment to the patient, undue exposure of his or her image ethically and legally compromises the professional involved, and may even generate a fine.

Evaluating student ethics is a complex task, since it involves broad and subjective aspects that go beyond technical knowledge. However, it should be emphasised that the Code of Professional Ethics is the specific document that governs moral behaviour in daily practice. Thus, it is fundamental that students of biomedical sciences know, study and discuss this legal device during the academic training.

A study by Grooves and Croot <sup>22</sup> evaluated the guidelines given by universities in the United States and the United Kingdom to their professors about the consent term for use and publication of images. The lack of preparation of these institutions on the subject was clear, since only one European university had published specific guides for professors on how to display patient photographs in class.

In addition, although US law is rigid on this issue, none of the three American universities that participated in the study guided professors about this issue. In Brazil there is a lack of extensive research that contemplates universities and professors and characterise the posture adopted before the everyday use of images in university hospitals and during graduation.

Ethics is the essence of biomedical training and the requisite to act in the area, especially in this time of rapid scientific and technological advance. It is through the principles of beneficence, non-maleficence, respect and autonomy that the moral formation of prudent, responsible and socially committed professionals and citizens is consolidated. Analysis conducted in 2010 by the CFM<sup>14</sup> with 103 medical schools indicated that ethics teaching was present throughout the curriculum. However, there has been a need for significant changes to improve student training.

Systematic review by Dantas and Sousa<sup>23</sup> on the teaching of deontology, ethics and bioethics in

Brazilian medical schools in the last 30 years found little progress in the structure, organisation and teaching of these courses. The authors concluded that there were few professors dedicated exclusively to these disciplines reduced offer and reduced credit hours in the curriculum.

According to Almeida et al.,<sup>24</sup> most students agree that these topics should be present in all semesters of undergraduate study. The authors point out that in most medical schools in Brazil (76.1%), the course is offered in only one semester, and only three colleges (3.1%) offer it throughout the course. The research also points out the need for a new curricular reform to ensure training with more quality and efficiency.

The results of the present study demonstrated that the majority of students (98.5% n = 259) were aware of the relevance of preserving the patient image right. However, many of them were unaware of the importance of requesting written permission and the right way to do so. In addition, the majority (73% n = 192) were unaware of the existence of legal provisions and specific legislation regarding the use of patient images.

Technological resources are crucial and have given professional support to several areas, contributing greatly to society in general and to disease control. On the other hand, they also cause more suffering when they create ethical conflicts, as in the case of misuse of images. Social media are emerging as new ways for rapid production, transmission and sharing of photos and videos with the community. Irreparable harm to the image of the individual, hurting their rights of personality and autonomy, can occur because of this dissemination of images in some situations.

Leon, Bedregal and Shand's study<sup>25</sup> on the prevalence of ethical problems in medical services showed that 53% of the patients perceived at least some type of ethical problem. Lack of participation in decision-making and non-use of informed consent are the second most frequent problem: 33% of respondents denied knowing this type of authorisation. The third relates to the management of privacy.

Digital photography has brought legal and ethical implications to physicians, institutions and patients. With the actual possibility of improper use of patient images and the resulting legal consequences, it is necessary for medical institutions to declare in writing their policy on the use of cell phones, cameras and video devices in university hospitals<sup>26</sup>. According to Teresa Ancona Lopez, the duty to inform is one of the duties attached to good faith. Thus, the general idea of good faith must be present all the time in the physician-patient relationship on both sides<sup>26</sup>. Today, it is recommended that consent to publish images be obtained in a specific way, rather than through comprehensive release. If the publication is in a newspaper, book, magazine or electronic media, the patient should receive the necessary guidelines, since the consent can not be withdrawn once the images are in public domain.

Snyman<sup>27</sup> also reinforces the need for written consent, considering that although verbal authorisation is sufficient enough - if the photograph was used for educational purposes only or for consultation - ethical guidelines now require the authorisation in writing and the document is indispensable. In addition, when patients give their authorisation, the consent should preferably be documented in accordance with the Code of Ethics and individual rights. It is worth mentioning that this authorisation must be fully interpreted, since accepting the capture of the image does not imply the disclosure and other uses of it.

The results of our study allow us to conclude that there are gaps in the graduation of the biomedical sciences regarding the right to image, since most students (73%) are unaware of what the Federal Constitution<sup>3</sup>, the Civil Code<sup>12</sup> and the Brazilian Penal Code<sup>13</sup> determine on the subject.

Ethics codes are fundamental instruments to establish good professional practices, as well as to make social coexistence more harmonious. Therefore, it is extremely important to stimulate students of biomedical sciences to discuss ethics and to seek to update their knowledge about the subject <sup>28</sup>.

# **Final considerations**

Concerns and ethical conflicts currently experienced by students of biomedical sciences show the imperative need for more efficient ethicalhumanist training, especially regarding the capture and reproduction of images during graduation.

It was observed that such practices appear throughout the course and intensify when the contact of students with patients becomes more frequent. We concluded that, although the curriculum covers the subject, most students do not know about specific legislation on misuse of images, and often the authorisation is obtained in an unusual way.

Finally, it can be inferred that the training institution still has difficulty in preparing future professionals on this issue. There is a lack of university courses in the curriculum that stimulate the discussion, in the classroom or during hospital practices, about how students and professionals must act in order to minimise ethical conflicts caused by new technologies.

### Referências

- 1. Carreiro PRL. A ética na era digital. Rev Col Bras Cir [Internet]. 2014 [acesso 25 out 2018];41(4):234-5. Disponível: https://bit.ly/2DdqtFr
- Batista REA, Campanharo CRV, Cohrs CR. Ética e legalidade na era da imagem digital. Acta Paul Enferm [Internet]. 2012 [acesso 25 out 2018];25(5):i-ii. Disponível: https://bit.ly/2zEZTC0
- 3. Brasil. Constituição da República Federativa do Brasil [Internet]. Brasília: Centro Gráfico; 1998 [acesso 25 out 2018]. Disponível: https://bit.ly/2ETNGh8
- Conselho Nacional de Saúde. Resolução CNS nº 466, de 12 de dezembro de 2012. Aprova diretrizes e normas regulamentadoras de pesquisas envolvendo seres humanos [Internet]. Diário Oficial da União. Brasília, p. 59, 13 jun 2013 [acesso 25 jun 2018]. Disponível: https://bit.ly/20ZpTyq
- Scheffer M ,Cassenote A, Guilloux AGA, Biancarelli A, Miotto BA, Mainardi GM *et al*. Demografia médica no Brasil 2018. São Paulo: Cremesp; 2018.
- Costa SM, Durães SJA, Abreu MHNG. Feminização do curso de odontologia da Universidade Estadual de Montes Claros. Ciênc Saúde Coletiva [Internet]. 2010 [acesso 25 out 2018];15(Supl 1):1865-73. Disponível: https://bit.ly/2PnPDJ7
- Gracindo GCL. A moralidade das intervenções cirúrgicas com fins estéticos de acordo com a bioética principialista. Rev. bioét. (Impr.) [Internet]. 2015 [acesso 25 out 2018];23(3):524-34. Disponível: https://bit.ly/2AVJf2Q
- Pestana JOM, Proença JMM. Consentimento informado ou consentimento assinado. J Cremesp [Internet]. 2004 [acesso 25 out 2018];198(2). Disponível: https://bit.ly/2qFTnqd
- Caires BR, Lopes MCBT, Okuno MFP, Vancini-Campanharo CR, Batista REA. Conhecimento dos profissionais de saúde sobre os direitos de imagem do paciente. Einstein [Internet]. 2015 [acesso 25 out 2018];13(2):255-9. Disponível: https://bit.ly/2PRbesD
- Indu M, Sunil S, Rathy R, Binu MP. Imaging and image management: a survey on current outlook and awareness in pathology practice. J Oral Maxillofac Pathol [Internet]. 2015 [acesso 25 out 2018];19(2):153-7. Disponível: https://bit.ly/2Fenboj

- Finkler M, Caetano JC, Ramos FRS. A dimensão ética da formação profissional em saúde: estudo de caso com cursos de graduação em odontologia. Ciênc Saúde Coletiva [Internet]. 2011 [acesso 25 out 2018];16(11):4481-92. Disponível: https://bit.ly/2qF1IA8
- 12. Brasil. Código civil. 53ª ed. São Paulo: Saraiva; 2002.
- Brasil. Decreto-Lei nº 2.848, de 7 de dezembro de 1940. Código Penal [Internet]. Diário Oficial da União. Rio de Janeiro, 31 dez 1940 [acesso 25 out 2018]. Disponível: https://bit.ly/2kZslzx
- Conselho Federal de Medicina. Código de ética médica: Resolução CFM nº 1.931/09 [Internet]. Brasília: CFM; 2010 [acesso 25 out 2018]. Disponível: https://bit.ly/2gyRqtD
- 15. Conselho Federal de Medicina. Resolução CFM nº 2.126, de 16 de julho de 2015. Altera as alíneas "c" e "f" do art. 3º, do art. 13 e o anexo II da Resolução CFM nº 1.974/11, que estabelece os critérios norteadores de propaganda em medicina, conceituando os anúncios, a divulgação de assuntos médicos, o sensacionalismo, a autopromoção e as proibições referentes à matéria [Internet]. Diário Oficial da União. Brasília, nº 138, p. 131, 1º out 2015 [acesso 25 out 2018]. Seção 1. Disponível: https://bit.ly/2FepVC5
- Conselho Federal de Odontologia. Resolução CFO nº 118, de 11 de maio de 2012. Revoga o código de ética odontológica aprovado pela Resolução CFO nº 42/2003 e aprova outro em substituição [Internet]. Diário Oficial da União. Brasília, p. 7, 14 jun 2012.
- Sarmento D. Interesses públicos versus interesses privados: desconstruindo o princípio de supremacia do interesse público [Internet]. Rio de Janeiro: Lúmen Júris; 2007 [acesso 25 out 2018]. Disponível: https://bit.ly/2AWmrA3
- 18. Barroso LR. Prefácio. In: Sarmento D. Op. cit p. 13.
- 19. Marinela F. Direito administrativo. Niterói: Impetus; 2014.
- 20. Mello CAB. Curso de direito administrativo. São Paulo: Malheiros; 2015.
- Brasil. Presidência da República. Lei nº 8.078, de 11 de setembro de 1990. Código de Proteção e Defesa do Consumidor. 5ª ed. Brasília: Senado Federal; 2012.
- 22. Groves T, Croot J. Using pictures in the BMJ. BMJ [Internet]. 2005 [acesso 25 out 2018];330(7497):916. Disponível: https://bit.ly/2Fg9Vj3
- Dantas F, Sousa EG. Ensino da deontologia, ética médica e bioética nas escolas médicas brasileiras: uma revisão sistemática. Rev Bras Educ Méd [Internet]. 2008 [acesso 25 out 2018];32(4):507-17. Disponível: https://bit.ly/2DtneLj
- 24. Almeida AM, Bitencourt AGV, Neves NMBC, Neves FBCS, Lordelo MR, Lemos KM *et al.* Conhecimento e interesse em ética médica e bioética na graduação médica. Rev Bras Educ Méd [Internet]. 2008 [acesso 25 out 2018];32(4):437-44. Disponível: https://bit.ly/2PIhUzF
- León TR, Bedregal P, Shand BB. Prevalencia de problemas éticos en servicios de medicina, desde la perspectiva del paciente. Rev Méd Chile [Internet]. 2009 [acesso 25 out 2018];137(6):759-65. Disponível: https://bit.ly/2JSAjhf
- 26. Snyman P. Who allowed the speaker to use my patient's photo? SAJCH [Internet]. 2012 [acesso 25 out 2018];6(4):102-5. Disponível: https://bit.ly/2PjVAGB
- Lopez TA. O dano estético: responsabilidade civil [Internet]. São Paulo: Editora Revista dos Tribunais; 2004 [acesso 25 out 2018]. p. 115. Disponível: https://bit.ly/2z00jRS
- 28. Siqueira JE. O ensino da ética no curso de medicina. O Mundo da Saúde [Internet]. 2009 [acesso 25 out 2018];33(1):8-20. Disponível: https://bit.ly/2AXOj6G

#### **Participation of the Authors**

Monique Cavalcante Borges Leal participated in the design, construction and execution of the project. Francisca Sandra Cardoso Barreto collaborated with the methodological review, revision of the article and general orientations for the research. Evellyn Batista da Silva Flizikowski collected, organised and analysed data. Wanessa Rodrigues Nascimento reviewed the final work.



# Annex

# Questionnaire applied to students of biomedical sciences (medicine / dentistry)

	ırse:
Per	iod:
Age	2:
Ger	nder:
1.	Have you ever photographed or filmed any patient (patient, examination, medical record, children)?
	( ) yes ( ) no
2.	For what reason?
	( ) Publication
	( ) Case report
	( ) Discussion with colleagues
	( ) Others (please specify)
3.	Have you asked for any verbal authorisation from the patient or the person responsible for the patient to take the images?
	( ) yes ( ) no
4.	Have you asked for any written authorisation from the patient or the person responsible for the patient to take the images?
	( ) yes ( ) no
5.	Did you register in the medical report the authorisation of the patient or person responsible for the patient for cap- turing the images?
	( ) yes ( ) no
6.	Have you ever seen anyone photograph or record a patient or any procedure without authorisation?
	( ) yes ( ) no
7.	Do you think that taking pictures from someone without their prior permission has legal implications?
	( ) yes ( ) no
8.	Do you think that the image of the individual should be preserved?
	( ) yes ( ) no
9.	Do you know in the Federal Constitution, the Civil Code and the Brazilian Penal Code any provision on the capture and use of the person's image?
	( ) yes ( ) no
10.	Do you know some legislation in the code of ethics of your profession that provides for the capture and use of patient images?
	( ) yes ( ) no
11.	Did you take professional ethics classes during your undergraduate education?
	( ) yes ( ) no
	How do you evaluate your knowledge about the code of ethics of your profession?
12.	