HUMAN FACIAL IDENTIFICATION - DENTAL ACTIVITY: ETHICAL AND LEGAL ASPECTS

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**Abstract:** Dentistry is a profession that has been around for over a hundred years, because the first courses in Brazil were created at the Faculties of Medicine in Bahia and Rio de Janeiro, on October 25, 1884, it is regulated by Federal Law, has Federal and Regional Councils in all Federative Units, whose legal institutional mission is to ensure ethics, the good concept of the profession and the defense of the free exercise of the profession throughout the country. Human identification is important and can be performed by numerous methods, involving knowledge and professionals from different areas of knowledge. The purpose of the study was to describe the ethical and legal aspects of the private activity of Dentistry in human facial identification in the official expertise of a criminal nature.

**Keywords:** Ethics. Human Identification. Legislation. Dentistry. Facial.

**INTRODUCTION**

**HISTORY OF BRAZILIAN DENTISTRY**

Dentistry is a profession more than a century old in Brazil and, in its history, it has great ephemeris (CFO, 2005):

- **Article 201.** These are great events of Brazilian Dentistry:

  - a) Dentistry Week, annually celebrated from April 14 to 21, considering that the first date is the enactment of Law 4.324/64, which created the Dental Councils, and the second is the one in which the figure of Joaquim José da Silva Xavier, Tiradentes, Civic Patron of the Brazilian Nation; It is,

  - b) Brazilian Dental Surgeon's Day, celebrated annually on October 25, the day on which, in 1884, the first Dentistry courses in Brazil were created at the Faculties of Medicine in Rio de Janeiro and Bahia.

**HUMAN IDENTIFICATION**

In prima facie, Human Identification, for criminal purposes, it is notorious to know that it is directly related to the attributions of Official Experts of Criminal Nature: Criminal Experts (DNA); Medical Examiners (anthropology; conventional radiography, digitized, subtraction, conventional and computed tomography, magnetic resonance, ultrasonography, and others; and DNA); and Forensic Dentistry Experts (anthropology; conventional, digitized, subtraction, conventional and computed tomography, magnetic resonance, ultrasonography, and others, all of head and neck structures, also known as orofacial or buco-maxillofacial; and DNA). The corpus delicti examination course for deoxyribonucleic acid (DNA) is carried out by the National Secretariat for Public Security (SENASP). There are also Papilloscopists, who contribute to human identification, performing tests on digital, palmar and plantar dermal papillae (BRASIL, 2009; SENASP).

**PROPOSITION**

Considering the great relevance of dentistry in official criminal expertise, the study aimed to describe the ethical and legal aspects of dental activity in human facial identification.

**LITERATURE REVIEW**

**DENTAL LEGISLATION**

Law Number: 5081, of August 24, 1966, regulates the practice of Dentistry and provides (BRASIL, 1966):

- **Article 1st.** The practice of Dentistry in the national territory is governed by the provisions of this Law.

  From the Dental Surgeon

- **Article 2.** The practice of Dentistry in the national territory is only allowed to the dentist qualified by an official or recognized
school or college, after registration of the diploma in the Board of Higher Education, in the National Service of Inspection of Dentistry, in the competent state sanitary department and enrollment in the Regional Council of Dentistry under whose jurisdiction the place of activity is found.

Single paragraph. VETOED.

Article 3º Those qualified by foreign schools will be able to practice Dentistry in the national territory, after the revalidation of the diploma and after satisfying the other requirements of the previous article.

Article 4º The right to practice Dentistry, with legal restrictions, is guaranteed to graduates under the conditions mentioned in Decree-Law Number: 7,718, of July 9, 1945, who regularly qualified for professional practice, only within the territorial limits of the State where the school or college that graduated him worked.

Article 5º Any administrative authorization for anyone who is not legally qualified to practice dentistry is null and void.

Article 6º It is incumbent upon the dental surgeon to:

I - practice all acts related to Dentistry, resulting from knowledge acquired in a regular course or in postgraduate courses;

II - to prescribe and apply pharmaceutical specialties for internal and external use, indicated in Dentistry;

III - certify, in the sector of their professional activity, morbid states and others;

III - attest, in the sector of their professional activity, morbid states and others, including, to justify absences from employment.

IV - carry out forensic dental expertise in civil, criminal, labor and administrative jurisdictions;

V - apply local and trunk anesthesia;

VI - use analgesia and hypnosis, provided that proven qualified, when they constitute effective means for treatment;

VII - maintain, attached to the office, a prosthesis laboratory, equipment and installation suitable for research and clinical analysis, related to the specific cases of its specialty, as well as X-ray equipment for diagnosis, and physiotherapy equipment;

VIII - to prescribe and apply emergency medication in case of serious accidents that compromise the life and health of the patient;

IX - to use, in the exercise of the function of expert dentist, in cases of necropsy, the access routes of the neck and head.

The Federal and Regional Councils of Dentistry were established by Law Number: 4,324, of April 14, 1964 (BRASIL, 1964):

Article 1º There will be a Federal Council of Dentistry in the Capital of the Republic and in each capital of the State, Territory and Federal District, a Regional Council of Dentistry, named according to its jurisdiction, which will reach, respectively, that of the State, that of the Territory and the Federal District.

Article 2 The Federal Council and the Regional Councils of Dentistry now instituted together constitute an autarchy, each one of them endowed with legal personality under public law, with administrative and financial autonomy, and their purpose is to supervise professional ethics throughout the Republic, being responsible for ensuring and working for the perfect ethical performance of dentistry and for the prestige and good reputation of the profession and of those who practice it legally.

And Law number: 4,324, of April 14, 1964, was regulated by Decree nº 68,704, of June 3, 1971, which, in summary, The Councils of Dentistry have the institutional legal mission of ensuring ethics, the good concept of the profession and the defense of the free exercise of the profession throughout the country (BRASIL, 1971):
Article 1° The Federal Council and the Regional Councils of Dentistry, established by Law number: 4.324, of April 14, 1964, have the purpose of supervising professional ethics throughout the national territory, being responsible for ensuring and working for the good concept of the profession and those who exercise it legally.

Single paragraph. The Federal and Regional Councils are also responsible for, as selection bodies, the discipline and supervision of Dentistry throughout the country, the defense of the free exercise of the profession, as well as the judgment of violations of Law and Ethics.

Decree-Law Number: 2,848, of December 7, 1940, the Brazilian Penal Code, describes the criminal classifications and respective coercive measures, aiming to inhibit the illegal practice of Dentistry in the country (BRASIL, 1940):

Article 282 - Practicing, even if free of charge, the profession of doctor, dentist or pharmacist, without legal authorization or exceeding its limits:
Penalty - detention, from six months to two years.
Sole paragraph - If the crime is committed with the aim of profit, a fine is also applied.

Quackery

Article 283 - Inculcate or announce healing by secret or infallible means:
Penalty - detention, from three months to one year, and a fine.

medicine

Article 284 - Practice healing:
I - habitually prescribing, administering or applying any substance;
II - using gestures, words or any other means;
III - making diagnoses:
Penalty - detention, from six months to two years.

Sole Paragraph - If the crime is committed for remuneration, the agent is also subject to a fine.

Qualified form

Article 285 - The provisions of Article 258 apply to the crimes provided for in this Chapter, except as defined in Article 267.

Law Number: 12,842, of July 10, 2013, provides for the practice of medicine, establishes the physician's private activities and, in perfect harmony, expressly records that such activities do not apply to the practice of Dentistry (BRASIL, 2013):

Article 1 The practice of Medicine is governed by the provisions of this Law.

Article 2 The object of the doctor's work is the health of human beings and human communities, for the benefit of which he must act with the utmost zeal, with the best of his professional capacity and without discrimination of any kind.

Single paragraph. The doctor will develop his professional actions in the field of health care to:

I - The promotion, protection and recovery of health;
II - The prevention, diagnosis and treatment of diseases;
III - the rehabilitation of the sick and handicapped.

Article 3 The physician who is part of the health team that assists the individual or the community will act in mutual collaboration with the other health professionals that comprise it.

Article 4 The following activities are exclusive to physicians:
I - (VETOED);
II - indication and execution of surgical intervention and prescription of pre- and postoperative medical care;
III - indication of the execution and execution of invasive procedures, whether diagnostic, therapeutic or aesthetic, including deep vascular accesses, biopsies and endoscopies;
IV - tracheal intubation;

V - coordination of the initial ventilatory strategy for invasive mechanical ventilation, as well as the necessary changes in the face of clinical intercurrences, and the invasive mechanical ventilation interruption program, including tracheal extubation;

VI - execution of deep sedation, anesthetic blocks and general anesthesia;

VII - issuance of reports on endoscopic and imaging examinations, invasive diagnostic procedures and anatomopathological examinations;

VIII - (VETOED);

IX - (VETOED);

X - determination of the prognosis related to the nosological diagnosis;

XI - indication of hospitalization and medical discharge in health care services;

XII - carrying out medical expertise and medico-legal examinations, except for laboratory tests of clinical, toxicological, genetic and molecular biology analyses;

XIII - medical certificate of health conditions, illnesses and possible consequences;

XIV - death certificate, except in cases of natural death in a location where there is no doctor.

§ 1 Nosological diagnosis is the determination of the disease that affects the human being, defined here as interruption, cessation or disturbance of the function of the body, system or organ, characterized by at least 2 (two) of the following criteria:

I - recognized etiological agent;

II - identifiable group of signs or symptoms;

III - anatomical or psychopathological alterations.

§ 2 (VETOED).

§ 3 The diseases, for the purposes of this Law, are those characterized by any of the following situations:

I - (VETOED);

II - (VETOED);

III - invasion of the body's natural orifices, reaching internal organs.

§ 5 The following are excluded from the physician’s list of private activities:

I - (VETOED);

II - (VETOED);

III - nasopharyngeal or orotracheal aspiration;

IV - (VETOED);

V - performing a dressing with debridement up to the limit of the subcutaneous tissue, without the need for surgical treatment;

VI - Care for people at risk of imminent death;

VII - performance of cytopathological exams and their respective reports;

VIII - collection of biological material to carry out clinical-laboratory analyses;

IX - Procedures performed through natural orifices in anatomical structures aiming at the physical-functional recovery and not compromising the cellular and tissue structure.

§ 6 The provisions of this article do not apply to the practice of Dentistry, within the scope of its area of expertise.

DENTAL ETHICAL STANDARDS

The Federal Council of Dentistry, uses its legal prerogatives and issues rules for the better functioning of Dentistry in the country. Resolution CFO-63, of April 8, 2005, defines the exclusive activities of the Dental Surgeon, as well as the area of competence to act in the anatomical regions of the head and neck (CFO, 2005):
CHAPTER II - Private Activities of the Dental Surgeon

Article 4. The exercise of private professional activities of the dental surgeon is only allowed in compliance with the provisions of Laws 4,324, of 04/14/64 and 5,081, of 08/24/66, in Decree n.º 68,704, of 06/03/64 71; and other rules issued by the Federal Council of Dentistry.

§ 1. It is up to the dental surgeon:

I - practice all acts related to Dentistry resulting from knowledge acquired in a regular course or in postgraduate courses;

II - to prescribe and apply pharmaceutical specialties for internal and external use, indicated in Dentistry;

III - attest, in the sector of their professional activity, morbid states and others, including for justification of absence from employment;

IV - carry out forensic dental expertise in civil, criminal, labor and administrative jurisdictions;

V - apply local and trunk anesthesia;

VI - use analgesia and hypnosis, provided that proven qualified, when they constitute effective means for treatment;

VII - maintain, attached to the office, a prosthesis laboratory, equipment and installation suitable for research and clinical analysis, related to the specific cases of its specialty, as well as X-ray equipment for diagnosis, and physiotherapy equipment;

VII - to prescribe and apply emergency medication in case of serious accidents that compromise the life and health of the patient;

IX - to use, in the exercise of the function of a dental expert, in cases of necropsy, the access routes of the neck and head.

Resolution CFO-198, of January 29, 2019, recognizes Orofacial Harmonization as a dental specialty, as well as the area of competence to act in the orofacial region and adjacent and similar structures (CFO, 2019):

Article 1st. Recognize Orofacial Harmonization as a dental specialty.

Article2. Define Orofacial Harmonization as a set of procedures performed by dentists in their area of expertise, responsible for the aesthetic and functional balance of the face.

Article3. The areas of competence of the dental surgeon specialized in Orofacial Harmonization include:

5. a) practice all acts related to Dentistry, resulting from knowledge acquired in a regular course or in postgraduate courses, in accordance with Law 5081, Article6, item I;

6. b) make use of botulinum toxin, facial fillers and autologous leukoplatelet aggregates in the orofacial region and in adjacent structures and the like;

7. c) have mastery in applied anatomy and histophysiology of the Dental Surgeon's areas of expertise, as well as pharmacology and pharmacokinetics of materials related to procedures performed in Orofacial Harmonization;

8. d) perform intradermotherapy and the use of percutaneous collagen-inducing biomaterials with the aim of harmonizing the upper, middle and lower thirds of the face, in the orofacial region and related annex structures and the like;

9. e) carry out biophotonic procedures and/or laser therapy, in their area of expertise and in annexed and similar structures; It is,

1. f) perform facial lipoplasty treatment, through chemical, physical or mechanical techniques in the orofacial region, surgical technique for removal of the Bichat adipose body (Bichectomy technique) and surgical techniques for correction of the lips (liplifting) in your area of performance and in related structures and related annexes.

DISCUSSION

FACIAL HUMAN IDENTIFICATION - DENTAL ACTIVITY

The scientific contributions of Dentistry
to Human Identification in Official Expertise of a Criminal Nature are countless, and a summary of the evidence will be presented below. The extensive field of activity of Forensic Dentistry is evidenced by the numerous national and foreign works analyzed, covering the most different areas of study of human identification, from the most common on dental and radiographic records to those on forensic dental traumatology, exams with superimposition of images and identification techniques through DNA (OLIVEIRA et al., 1998).

Facial photoanthropometric points are increasingly used in Forensic Dentistry for human identification, however, one must consider the variability of distance, incidence and facial image capture equipment, suggesting geometric morphometry for greater accuracy in the analyzes (BALDASSO, 2021).

The participation of Forensic Dentistry in the processes of post-mortem human identification is present from the initial procedures (general identification): estimates of sex and age, in the determination of ethnic group, skin color and other characteristics, such as height, in the diagnosis of stains or liquids originating from the oral cavity, or contained therein, or even in the definition of the cause and time of death, until the irrefutable possibility of individual identification. The analysis of ante-mortem and post-mortem radiographs and CT scans has become a fundamental tool in human identification processes in Forensic Dentistry (CARVALHO et al., 2009).

The study demonstrated the applicability of the 3D method with selfie images for human identification performed by Forensic Dentistry (Reesu, Brown, 2022). Considering that individuals have different facial characteristics, the use of scientific methods of facial identification by Forensic Dentistry allows classifying, comparing and providing the necessary data for the identification of victimized individuals of unknown identity, solving cases for the legal environment (SOUZA, 2017).

There are reports of misinterpretations of human identifications by facial recognition, causing unjustified arrests, therefore, it is recommended that they be carried out by Forensic Dentists, with the scientific caution advocated by the scientific working group on facial identification (OLIVEIRA et al., 2022).

Forensic Dentistry, for having relevant anatomical knowledge of the orofacial regions and adjacent structures, uses the important facial reconstruction as an auxiliary method of human identification, effectively contributing to justice and society (GONZAGA et al., 2022; DIAS, 2017).

Comparison of post-mortem evidence with ante-mortem data is the usual Forensic Dentistry approach to managing human identification cases. Although medical records and radiographs are widely used as evidence, the study concluded that selfies can also be used (NAIDU et al., 2022).

CONCLUSION

Human identification is important in official forensics of a criminal nature and can be performed by numerous methods, involving knowledge and professionals from different areas of knowledge, such as exams: digital dermal papillae; anthropology; conventional radiography, digitized, subtraction, conventional and computed tomography, magnetic resonance, ultrasonography; Edna.

Regarding the objective of the study, the ethical and legal aspects were described, with their respective current norms, thus, it is possible to conclude that the human facial identification, which comprises the anatomical regions of the head and neck, involving the orofacial structures, also called oral-maxillo-facial and associated areas, is an
area of activity and legal competence exclusive to Dentistry, exercised by the Surgeon-Dentist, in the position of Expert Odontologist.

Finally, it must be noted that if human facial identification is carried out by another professional, in theory, it typifies the crime provided for in Article 282, of the Brazilian Penal Code, illegal practice of Dentistry. Therefore, this research is of great value, in the sense of contributing both to scientific knowledge and to the ethical and legal practice of dentistry.

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PARTICIPATION OF THE AUTHORS

Eberte Ferreira Alencar, Dental Surgeon, elaboration and revision of the text for submission.

Antonio Alberto de Medeiros Ferreira, Post-Doctor, responsible for the study design, guidance and final approval of the text for submission.

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