Review Article

Human Identification and Human Rights through Humanitarian Forensic Odontology

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The ethical relationship between human identification and dead bodies lies in the question of whether the dead, like living individuals, have human rights. Only a name and an identity will allow their religious beliefs to be respected and allow the next of kin to complete the grieving process. Experts in forensic odontology and disaster-victim identification have intimate material contact with bones, teeth, jaws, and other tissue of the deceased, but their work can also lead to the best practice in human identification from humanitarian forensic odontology (HFO) perspective. HFO is the application of *pro bono* services and consultations in that forensic casework where dental evidence is involved and forensic odontology could be pivotal in criminal investigations, especially in the field of human identification. For this reason, the inclusion of forensic odontology in the human identification process must be methodological, becoming a proper specialization of dentistry and forensic sciences. The dead have the right to have a name and an identity. In the authors' opinion, the failure to perform a dental autopsy for the purpose of human identification of unidentified human remains can be considered a violation of the human rights of the dead.

KEY WORDS: Forensic odontology, human identification, human rights, humanitarian forensic odontology, humanitarian forensics

Introduction

eeth, jaws, and dental treatments can provide a tremendous amount of information in the field of disaster-victim identification (DVI). They can also assist in cases of missing and unidentified persons, in child abuse and neglect cases and in domestic violence and sexual abuse cases where bite mark evidence is found. Age estimation of unaccompanied minors, border control, and human trafficking is another example of its application.^[1,2] The ethical relationship between human identification and dead bodies lies in the question of whether the dead, like living individuals, have human rights.^[3,4] Only a name and an identity will allow their religious beliefs to be respected and allow the next of kin to complete the grieving process. People's response to grief will vary upon several circumstances, such as the relationship with the dead persons, religious beliefs, and previous experience with death.^[5] However, the body of our loved one is the center of the healthy response to the loss and the closure of the mourning.

Experts in forensic odontology and DVI have intimate material contact with bones, teeth, jaws, and other tissue of the deceased, but their work can also lead to the best practice in human identification from humanitarian forensic odontology (HFO) perspective. [6] There is, therefore, a need to systematically include a dental autopsy and dental radiology

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in all medico-legal autopsies aimed at human identification. The inclusion of forensic odontology can contribute to a swift identification of nameless cadavers and can also provide evidence to the families which may be used in legal processes. The aim of this article is to focus on the rights of the dead^[7] in the context of the contemporary world and global human rights issues arising from the need to identify the victims of migratory flows,^[8] and missing persons, promoting HFO, as a separate field of humanitarian forensic action,^[9] but still in combination with medicolegal, anthropological, and genetic approaches with the aim of collecting postmortem and antemortem identifying data.^[10]

HFO can be defined as the application of *pro bono* services and/or consultations in those forensic casework where dental evidence is involved and forensic odontology could be pivotal in criminal investigations, especially in the field of human identification. Interpol General Assembly of 1996 on DVI stipulated that human beings have the right not to lose their identities after death^[11] as well as missing persons have a closed relation for the need of identification, since a missing person my either be alive or dead.

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A HFO action can be promoted on a local, regional, or international level, by establishing groups or associations of volunteer experts in forensic odontology.

FORENSIC ODONTOLOGY FOR HUMAN RIGHTS WORKING GROUP AND INTERNATIONAL ASSOCIATION

In May 2015, three forensic odontologists from Italy, Saudi Arabia, and Spain decided to create an international group of experts in forensic odontology. The aim of this group was to promote forensic odontology services worldwide, with the intention of preventing human rights violations through the application of best practice in human identification and age estimation in all criminal investigations where dental evidence is involved. Since its inauguration on May 5, 2015, at the Annual Interpol DVI Meeting in Lyon, "Forensic Odontology for Human Rights" International Working Group has grown to over 120 consultants from 47 countries.

Members of "Forensic Odontology for Human Rights" are volunteers who represent a proactive response to the global need for forensic odontology, which when combined with other forensic disciplines would be a complementary but not an optional tool in the field of human identification and age determination.[12] The group has already received international recognition, organizing the first forensic odontology workshop in Saudi Arabia in 2016, and in the United Arab Emirates (during the 2017 FCC Forensic Conference), in Nepal in 2018, and through presentations at other international meetings such as the 12th INPALMS (Indo Pacific Association of Law, Medicine, and Science) Congress 2016 Bali (Indonesia); DVI Conference 2016 Prague (Czech Republic); International DVI Conference 2016 Bucharest (Romania); Interpol DVI annual conference 2016 Singapore; IOFOS (International Organization of Forensic OdontoStomatology) International Conference 2017 Leuven (Belgium); ASFO (American Academy of Forensic Odontology) Annual Scientific Meeting 2018 Seattle (USA); Inauguration of the International Center for Humanitarian Forensics and Symposium on Humanitarian Forensics, Gujarat (India), June 2018, organized by Gujarat Forensic Sciences University and the International Committee of the Red Cross.

Forensic Odontology for Human Rights members are volunteering for forensic casework, and also, in teaching and scientific research in odontology and dentistry applied to forensic sciences. [12] In February 2018, the group inaugurated the HFO award which was presented to Dr. Peter Sahelangi, forensic odontologist from Indonesia, *for his contribution to the development and promotion of forensic odontology*, and in February 2019 to two forensic odontologists from Brazil, Dr Carlos E. Palhares Machado and Prof. Ricardo H. Alves da Silva, *for the promotion of best practice in identification in Brazil*.

In January 2019, the group evolved into a nonprofit association (identified with the acronym "AFOHR" Association Forensic Odontology for Human Rights) with a statute, an elected board, and a free registration [Figure 1].

AFOHR is the first international association promoting HFO and is open to all involved and interested in forensic human identification and age assessment with a university degree.

DENTAL TEAM DISASTER-VICTIM IDENTIFICATION ITALIA CIVIL PROTECTION NONPROFIT ASSOCIATION

In Italy, the national DVI teams of the State Police and Carabinieri Police agency have not yet involved a formal involvement of forensic odontologists, with only the exception one reserve odontologist enrolled as a reserve officer in the years 2016-2018. The need to promote best practice in human identification and HFO brought a group of dentists to inaugurate, in April 2016 in Bari (Southern Italy), a regional voluntary association to support human identification procedures in national civil protection emergencies. The Italian civil protection system is composed of regional associations with a national department which oversees the management of larger natural disasters where there is a need for greater resources to assist with the rescue of the injured and the recovery of fatalities. The deployment of civil protection associations under the direction of the national civil protection department supports the rescue operation logistically, and the management of the victims involved in the disaster. Victim identification subsequent to a natural disaster will involve several agencies, including Scientific Police and Carabinieri Police, but could also involve other forensic experts under the authority of the local court.

The "Dental Team DVI Italia" has organized two courses, one in 2016 and other in 2017, with the aim of training dentists, dental hygienists, and dental assistants in forensic dental identification and dental autopsy procedures. The second course included the simulation of a dental autopsy and the registration of dental data on Interpol forms. The association also received international recognition in 2016 when it participated at the Interpol annual scientific meeting in Lyon, in Singapore in 2017, in Lyon in 2018, and again in Singapore in 2019. In addition, the chairman of the association was a guest speaker at the *International Conference DVI: present*



Figure 1: AFOHR logo. www.afohr.org

and perspectives organized by the Romania National Forensic Science Institute in Bucharest (Romania) September 22, 2016, and at the conference "The Role of the DVI team in human identification" organized by the Department of Forensic and Insurance Medicine of the Semmelweis University in Budapest (Hungary) 29–30 November 2017.

The main goals of the association are the promotion of best practice in forensic dental identification, and raising awareness among law enforcement agencies and courts on the need for a complete dental autopsy, in order to prevent the growing number of nameless cadavers, and offer *pro bono* forensic service in the field of human identification and age estimation of unaccompanied minor migrants. The next step of the association is to set up a deployable forensic dental team of experts with experience in DVI, thereby extending the range of the organization to cover the entire European border to assist in the identification of the victims of migration entering the EU. In April 2019, the general assembly voted for a modification of the name of the association into "Dental Team DVI Europe" [Figure 2].

University of Catanzaro and Association Penelope Italia Agreement

The phenomena of missing and unidentified persons convinced the Italian government in 2007 to appoint a prefect with the title "Special Commissar for Missing Persons". The appointment was made to determine the number of unidentified human remains in Italy since 1974, and study all useful improvements in the management of the reporting and the search for missing persons.

The Italian voluntary association called "Penelope Italia" was established in December 2002 by the families of missing persons. The association is the evolution of previous spontaneous committees and was formed by families who found themselves alone to face the pain and distress of the disappearance of a family member. Among the services offered is assistance in making a missing person report to the authorities, help in the search for the missing person,



Figure 2: Dental team disaster victim identification Europe logo. www.dentalteamdvi.it

psychological support and legal consultations and where appropriate, forensic assistance when unidentified human remains are found.^[13] Penelope is a nonprofit-making organization whose sole aim is the promotion of social solidarity, dignity, peace, legality, and social justice.

The University of Magna Graecia in Catanzaro (Southern Italy) has offered technical collaborations to members of Penelope Italia to support forensic identification procedures, including forensic odontological assistance when unidentified human remains are found.

DISCUSSION

International human rights documents state that we should all be permitted to pursue our own definition of a "dignified life" in the sense that we are all one "human family." This concept has rarely been applied to the unidentified deceased, ignoring their right to an identity and the dignity of an appropriate funeral. Dignity is one of the foundational concepts of human rights, and as such it must be seen as being synonymous with humanity. This principle is implicit in many International Humanitarian Law rules, like the prohibition of mutilation of dead bodies. It is a starting point for elaborating a theory of rights, which cannot exclude the rights of the dead to be identified, and the rights of the next of kin to know the fate of their relatives and to mourn.^[14,15]

Both human rights and the ethical status of the dead are complex issues, as they deal primarily with respect for life. When we refer to "crimes against humanity" as a form of human rights violation, the paradox is that people in these circumstances have already had their most fundamental rights violated (as in Rwanda and the former Yugoslavia). International scrutiny of these crimes requires evidence, thus demonstrating the importance of forensic experts when documenting human rights violations.[16] Considering HFO as necessary to promote best practice in human identification, unfortunately, highlights the failure to comply with other human rights, which have already been violated. Experts in forensic medicine and odontology will measure their humanitarian work in terms of the human remains they identify and return to family members, thus ending uncertainty and allowing the families to grieve.

However, the importance of giving back a name to unidentified human remains goes beyond forensic exhumations. The search and recovery of dead bodies and the other objects buried with them are part of the ethical heart of forensic work in a human rights context. The forensic investigations will help families discover what happened to their loved one; it could assist law enforcement authorities to convict war criminals and may help bring peace to war-torn nations.

Humanitarian forensic medicine and odontology can also work with and for the dead in other more direct and concrete ways. When experts volunteer, at a regional, national or international level, they will extend their activities beyond the gravesite or temporary morgue by offering psychosocial assistance to families and training to local emergency, law enforcement, and civil protection professionals.^[17]

The dead also has legal rights in certain jurisdictions. For example, the right not to be trafficked or dissected without consent or used sexually. However, the idea of considering the dead as equals to the living in terms of universal human rights should transcend national boundaries and demand humanitarian forensic action. Can we morally consider that violations of the dead are equal to violations of the living? Unidentified bodies can be still respected and treated with dignity, but their human rights will only be fully restored by establishing their names and identities and their place in the world. For example, a delay in the identification means a delay in having their estates distributed according to their wishes. Another important issue when dealing with fragmented human remains is the question of how many body parts count as a "human body" and how much of a body would be required to have human rights? If we compare the human right of the dead with those the Universal Declaration of Human Rights grants to the living, we could focus on Article 5 of the Universal Declaration, not to "be subjected to torture or to cruel, inhuman or degrading treatment or punishment". The difference between a living and a dead person lies in the possibility of restoring the rights of the living individual by claiming their right not to be tortured. This must be applied to incomplete human remains even when there is no longer a complete body.[18] Again, human remains can and must always be treated with respectful rituals but to have the maximum effect of those rights, human remains must have a name and an identity. To reach this stage, a human identification process must be performed using a multidisciplinary approach and assessment, involving forensic pathologists, forensic odontologists, and forensic anthropologists. To this end, HFO is not merely the technical collection of postmortem dental data during a dental autopsy but can be a methodological contribution and an aid in the antemortem collection and interpretation.^[19] The indirect victims of the unidentified human remains are those who are waiting for news from a loved one. [20] As with archaeologists, [21] odontologists are in the unique position of establishing not only a generic biological profile, i.e., sex, race, age, geographical origins, and an odontogram, but also a social profile of the unidentified body, such as eating habits, drug consumption, or smoking habits for example. It may even be possible in some cases to establish a family and social framework, including oral care habits and lifestyle. These data will allow the creation of a generic biological profile with social patterns, which will narrow the search for the compatible missing persons, thereby speeding up the identification process. For this reason, the inclusion of forensic odontology in all human identification processes of unidentified human remains with jaws and teeth present, should be methodological for the respect of the human rights of the dead, within the frame of an act of justice rather than benevolence,[20] and forensic odontology should become a proper specialty within dentistry and forensic sciences.[22] Although DNA remains one of the three primary identifiers, limited efforts are still made in the collection of all postmortem dental data to facilitate future identification. Depending on the availability of dental records, dental methods contribute to the identification of major catastrophe victims in up to about 80% of the cases.[23,24]

CONCLUSIONS

The dead have the right to have a name and an identity. The failure to systematically involve odontologists who are experts in forensic odontology and with experience in DVI and Interpol standards could lead to a delay or even a failure in the identification process. For this reason, the autopsy of an unidentified person must always include a complete dental autopsy, which will allow for the establishment of a generic biological profile with social patterns.

Restoring names and identities to unidentified bodies are fundamental human rights of the dead and also of the families of the missing, as this will allow the families of the deceased to provide their loved ones with the appropriate care and allow them to be buried in accordance with the rites of their faith.

A co-operation between forensic experts and law enforcement agencies, both at the national and international levels, needs to be highlighted, also considering HFO.

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CONFLICTS OF INTEREST

There are no conflicts of interest.

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