



## Introducing Forensic Odontology in Dental Curriculum: A Missing Link Towards Excellence for Health and Judicial Academics in Pakistan

Shahjahan Katpar<sup>1\*</sup>, Ahsan Sethi<sup>2</sup> and Raheela Yasmin<sup>3</sup>

<sup>1</sup>Professor of Oral and Maxillofacial Surgery, Dow University of Health Sciences, Karachi, Pakistan

<sup>2</sup>Assistant Professor of Medical Education, Institute of Health Professions Education and Research, Khyber Medical University, Peshawar, Pakistan

<sup>3</sup>Professor of Medical Education and Director RARE, Riphah International University, Islamabad, Pakistan

**\*Corresponding Author:** Shahjahan Katpar, Professor of Oral and Maxillofacial Surgery, Dow University of Health Sciences, Karachi, Pakistan. E-Mail: profkatpar@duhs.edu.pk

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Dear readers, we know that every human being has a unique DNA identification blueprint. Natural oro-facial tissues such as teeth, lips, tongue, facial bones and associated unnatural dental items like fillings, dentures etc are the only other non-living sources for identification of dead human bodies in cases, where fingerprints or other related identification traces related to gender and age are destroyed and are not available. [1-3]. Forensic Odontology (FoDn) is the branch of forensic sciences that aims to establish identity of dead bodies: as offenders or innocent, based on available dental records and is also called Forensic Dentistry. This guest editorial aims to share our contribution about Forensic Odontology, a well-established dental specialty in the advanced world and currently almost non-existent in the undergraduate/ Postgraduate dental and also in Judicial academic curriculum of Pakistan. [3,4].

FoDn relates with the examination, evaluation, preservation and presentation of oral and dental tissues as evidence in criminal or civil proceedings to identify a dead human body and to help in the delivery of justice when needed [1]. Dental tissues are the hardest to withstand fire and other related causes of destruction of human tissues and therefore, are also a reliable source of scientific evidence for the identification of a dead bodies in disasters, abuse cases, mass crimes, drowning etc [2,3]. At present, global research is also in progress to use tongue, hard palate and saliva for their respective analysis in forensic sciences to identify bodies due to their unique different and variable anatomical and biochemical structures [2,3]. We have seen high profile cases in our countries, where dead bodies of former Pakistan President Gen. Zia ul Haq, former Indian PM Mr Sanjay Gandhi and social celebrity like Junaid Jamshed were only identified from their available dental records [1,2]. However, this has been done as special cases and is not a common practice for a common person in our societies.

By introducing FoDn a non-existing dental specialty in our current academics, we hope that this social disparity in Pakistan will also decrease. [1,2,4]. At present, our country is at the forefront of fighting International War on Terrorism at multiple forums and also faces cases of :sexual abuse, child molestation/rape, mass industrial Fire disasters and natural calamities of various types, wherein numerous bodies remain unidentified [5]. In cases of rape, abuse, homicide, sexual offense etc, bite marks are commonly iden-

tified. These marks have a special pattern for each human and can provide important details about a person involved via presence or absence of teeth, wear-tear pattern of teeth, associated fillings done, presence of fixed or temporary prosthesis etc [3]. In our country and present set up, the important bite marks and related oral-dental legal evidence is lost at crime scene, as important findings. At times, the Dental Surgeons involved in handling medico-legal matters are also reluctant to openly assist legal system due to lack of training in this area, associated social pressures prevalent in our South-East Asian traditional societies and numerous other related complex social reasons [1,2].

For more than 50 years, the major dearth of qualified FoDn specialists in our country has created wide lacunas, leading to compromised health academics and judicial matters also with associated shortfall in reporting its subsequent role to solve forensic related medico-legal cases [2,4,5]. The Forensic Odontology significance in terms of reporting, sharing scientific evidence, handling/solving crime and supporting law enforcement organizations demands participation from properly qualified/trained dental specialists as Forensic Odontologists. These FoDn Specialists have a stronger understanding about oral-dental tissues, due to their Dental Profession background and need to play their active roles and assist in all academic, crime and judicial matters [3,5-7].

By exposing dentistry students to FoDn at undergraduate level, future dental graduates will be educated and this new trend will not only create more interest but would also compel them to save dental records for legal matters, as antemortem and postmortem dental records availability are of prime importance to establish identity of deceased body [8-10]. Thus, preservation and documentation of medical and dental records is of paramount importance in our South-East Asian societies, where certain areas remain grey, for delivery of fair justice.

FoDn having originated from Japan has subsequent strong footings in Europe and North America and is now also taught at dental institutes of Iran, Malaysia, India and Srilanka [2,8-10]. The Indian Dental Academicians in the last decade have strongly realized its importance, revised their dental curriculum and FoDn is now actively being taught at undergraduate and postgraduate levels [10] and has its related Journals in good academic circulation [7,8,10].

Hence, there is a dire need for recognizing FoDn as a separate specialty and should be introduced at our undergraduate and post-graduate curriculum in line with the global academic trends [3,4]. We believe that, the implementation of this new agenda will uplift our existing Dental Education, open new frontiers and also give oxygen to our legal fraternity in Pakistan and also bridge the existing gap between Forensic Sciences and Judiciary. Implementation of this agenda will also play its vital role in differentiating innocent and guilty [4,5,10]. Unfortunately, FoDn as a Dental Specialty in our country has been neglected and undermined in past by the respected Dental and Medical Education related regulatory body representatives at Pakistan Medical & Dental Council and Higher Education Commission. We feel, as the national dental curriculum revision is currently in progress, it's time to accept and rectify this academic short coming, as a national responsibility [3-5]. Like India and Iran as our next door progressive academic neighbors, we as "Change Agents" also aim to start FoDn at undergraduate and postgraduate dental academics in our country. Though, this journey is slow, but we are sure this progressive step towards excellence will create a win-win situation from all concerned and in this regard, we look forward for active support from all related stake holders.

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