

Forensic Dentistry – An Important Core Subject Missing From Dental Curricula in Pakistan

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Dear Editor,

Forensic dentistry is a branch of forensic science that involves use of dental knowledge in legal matters. Dentists can play important role in identifying victims of crime, accidents, and disasters and in identifying perpetrators of crimes^{1,2}.

A dentist can use dental records, X-rays, and other dental features to identify human remains when other forms of identification are not possible. This can be critical in cases such as mass disasters or where the body has been badly decomposed/ burned and can analyze bite marks found on a victim's body or on an object to identify a suspect in a criminal investigation. They can estimate age of a person in cases where age of a victim/suspect needs to be established. Sex determination is an important part of Forensic Dentistry that plays a key role in identification of unidentified individuals during natural disasters, chemical insults and bomb explosions. Dentists can analyze dental trauma to determine the cause of injuries and provide evidence in legal cases.

The sample for DNA analysis is isolated from various biological materials including teeth and saliva. Dentists can be helpful in such analysis. They can use dental evidence to create a dental profile of an unknown suspect. This involves analyzing the size, shape, and other characteristics of the teeth to provide clues about the suspect's age, sex, and possible geographic origin.

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If a suspect's dental records are available, dentists can compare them to bite marks found on a victim or to dental evidence left at a crime scene, such as a broken tooth or a dental appliance. In the event of a mass disaster such as a plane crash or natural disaster, dentists can play a role in identifying victims through their dental records or by analyzing teeth and other dental evidence. Child abuse is a loathsome act deserving condemnation by the society. Dentists can be instrumental in recognizing this hateful act and can play a proactive role in helping the child victims.

In addition to these roles, dentists can be involved in providing dental care and treatment for incarcerated individuals and providing expert testimony in cases involving dental malpractice. It can, therefore, be confidently mentioned that dentists can play a valuable role in various aspects of forensic science and law enforcement if basics of the subject are included at the undergraduate curriculum.

In developed countries, Forensic Dentistry has further been classified into three branches for which specialist personnels are trained to perform the assigned specific task with high level of proficiency and expertise; Civil, Criminal & Research³.

On the contrary, in Pakistan, such facilities are non-existent as curriculum follows a standardized structure and is regulated by the Pakistan Medical and Dental Council. Dental education consists of a 4-year undergraduate program followed by 1-year internship, leading to a Bachelor of Dental Surgery (BDS) degree. FD is not included as a teaching subject in the dental curriculum. Findings of a survey reveal, though the most dentists were aware about significance of this subject, but its training, teaching and implementation in the country is virtually

negligible and this important field is striving to gain its recognition⁴.

It is high time for the individuals at the helms of affairs in dental schools to have deliberations and reach to some consensus regarding inclusion of this subject in dental curriculum as an examination subject.

By incorporating forensic dentistry into dental curriculum, students can gain knowledge and skills in this specialized field. This training can enhance their ability to recognize and preserve dental evidence, collaborate effectively with forensic experts and law enforcement agencies, and contribute to the identification and resolution of criminal cases. Moreover, including forensic dentistry in the curriculum will raise awareness among dental professionals about their potential role in forensic investigations. It can encourage dentists to consider further specialization in Forensic Dentistry and pursue advanced training in this field.

Moreover, it will help us prepare human resource to combat urgency situations arising from natural and manmade disasters. The wide-range of natural threats that a country faces is due to the geological and meteorological diversity⁵. Pakistan is one of the top ten nations exposed to frequent and severe natural disasters such as earthquakes, floods, cyclones, landslides, heavy rains, excessive heat⁶. With increasing population at fast pace, manmade disasters like crimes, terrorism, arson, civil disorder and wars are also on the rise which may call for an emergency and dental profession should stay ready to shoulder its responsibilities effectively as per requirement of the circumstances.

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