

The critical role of forensic dentistry: a call for greater awareness and training in South Africa

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As the CEO of the South African Dental Association (SADA), I find it crucial to highlight the significant yet often underappreciated role of forensic dentistry. This specialised field, which integrates dental science with legal investigations, is indispensable in various contexts such as identifying human remains, analysing bite marks and estimating age. Despite its importance, I believe there is insufficient awareness and training in forensic dentistry within South Africa. This article presents my perspective on the need for increased focus on this field, comparing our situation with international standards and suggesting steps to enhance our capabilities.

Forensic dentistry is vital in numerous scenarios. For instance, dental records are frequently the most reliable means of identifying bodies in cases where other methods fall short due to decomposition, burning or mutilation. Teeth, known for their durability, can survive extreme conditions, preserving critical identification information. Furthermore, bite mark analysis can be pivotal in criminal cases, providing essential evidence that may confirm or exclude potential suspects. Estimating the age of deceased individuals, particularly children and adolescents, also aids significantly in identification and understanding case contexts. In large-scale disasters, forensic dentists are essential in managing and comparing dental records efficiently to facilitate rapid and accurate identification, providing closure to families and supporting legal processes.

In South Africa, the field of forensic dentistry faces several challenges. One major issue is the lack of awareness about its importance and capabilities. This extends to the public and even within the broader medical and legal communities, often leading to underutilisation of forensic dental services. Additionally, training and education opportunities are limited. Despite some available programmes and courses, the number of trained forensic odontologists remains relatively low, partly due to restricted educational resources. Resource constraints further impact our ability to conduct thorough forensic dental investigations, with many forensic laboratories lacking advanced technology and sufficient funding for training and research.

The local importance of forensic dentistry cannot be overstated, particularly given the high frequency of unidentified bodies in South Africa. This issue underscores the urgent need for more trained forensic odontologists. With a higher number of professionals in this field, the identification process could be significantly improved, offering timely and reliable

results that aid in bringing closure to families and facilitating legal proceedings. Enhanced training and resources would allow for better management of cases involving unidentified bodies, reducing the burden on other identification methods that may be less effective in certain conditions.

Comparing our situation to international standards reveals significant gaps. Countries such as the US, UK and Australia offer advanced and specialised training programmes in forensic odontology, supported by robust funding, research opportunities and collaboration with law enforcement agencies. Public awareness and recognition of the field's importance in these countries lead to more frequent and effective utilisation of forensic dental services. They also have access to state-of-the-art technology, enhancing their capacity for precise dental evidence analysis through digital radiography, 3D imaging and advanced software.

To elevate forensic dentistry in South Africa, several steps are necessary. We need to increase awareness about the field's role and importance among the public, law enforcement and medical communities. Educational campaigns, seminars and media collaborations can aid in this effort. Expanding educational opportunities is also crucial. Universities and training institutions should offer comprehensive courses and specialised programmes in forensic odontology, supported by scholarships and funding to attract more students. Investing in forensic dental laboratories is essential, ensuring they are equipped with advanced technology and tools for effective investigations. Additionally, international collaboration with forensic dentistry organisations can facilitate knowledge exchange, training opportunities and access to advanced technologies, bridging the gap between our current capabilities and international standards.

Forensic dentistry is an indispensable component of modern forensic science, supporting the identification of remains, bite mark analysis and age estimation. In South Africa, while this field holds significant potential, it faces challenges in awareness, education and resources. By learning from international practices and investing in training and technology, we can enhance our forensic dental capabilities, ensuring this vital field contributes fully to justice and societal wellbeing.

This is my perspective, and I acknowledge it might be limited. However, I believe that a discussion on this, and addressing these issues, is crucial for the future of forensic dentistry in South Africa.