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COMPETENCIES IN DENTAL ANATOMY AMONG ODONTOLOGISTS

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The authors declare that they have no conflict of interest.

Background: *Frequently examination of the teeth and jaw of deceased persons is relatively straightforward with the teeth intact and contained within the alveolar bone. On other occasions the teeth may be separated from the alveolar bone and may or may not be fractured. Depending on the circumstances of the disaster these fragments may also be incinerated. Identification of individual teeth independent of associated alveolar bone can be difficult, and combined fracture or incineration can magnify this difficulty. Comingling with animal remains and teeth may add an additional confounder to the identification of individual teeth.*

This study reports on competency in dental anatomy using visual (photographic) and tactile methods of assessment. Participants with varying levels of experience in forensic odontology participated in one of 3 workshops in dental anatomy. All teeth used had been collected under ethical approval and were of known provenance, or were acrylic replicas of these teeth.

Method: *Simple demographic data were collected from participants including age, qualifications and experience in forensic odontology. All participants were dentists, most with varying levels of experience in forensic odontology. Each workshop consisted of 4 exercises in identification of teeth: (1) Photographic; (2) Tactile – intact teeth with or without restorations; (3) Tactile – fragmented, grossly carious and/or incinerated teeth; (4) Tactile – many teeth from the same individual. Participants were asked to identify each tooth and to rate the confidence of their decisions. The time allowed for each identification was capped. Participants were encouraged to refer to a dental anatomy textbook.*

Results: *Results showed that visual and tactile methods produced similar results. There was no correlation between years of experience and performance. There was no difference in score between participants with increased anatomical knowledge and those without. Participants with extensive experience in forensic odontology performed better.*

Conclusion: *These exercises confirm that identification of individual teeth is difficult. This reinforces that the tasks of forensic odontology are difficult and that high level skills in dental anatomy are required. The results also highlight the need for forensic odontologists to maintain skills in dental anatomy through continued professional development and training*

KEYWORDS: Forensic Odontology, Identification, Dental Anatomy.

