



A72 Exploring Educational Needs Beyond Technical Competency: Laboratory Management, Testimony, and Vicarious Trauma

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Learning Overview: After attending this presentation, attendees will understand the educational needs of forensic anthropology students beyond traditional technical competencies. This presentation will explore the skills needed for effective laboratory management, providing appropriate court testimony, and managing vicarious trauma.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by highlighting important components of forensic anthropology education needed to shape the next generation of practitioners.

Since the landmark Supreme Court decisions of *Daubert v. Merrell Dow Pharmaceuticals, Inc.* and *Kuhmo Tire Company, Ltd. v. Carmichael* and the release of the 2009 National Academy of Science Report *Strengthening Forensic Sciences in the United States: A Path Forward*, the field of forensic anthropology has made great strides in validating and improving reliability of analytical methods.¹⁻² Furthermore, with raised awareness of the importance of laboratory accreditation following international standards, the practice of competency and proficiency testing has taken root. In addition to these advancements, the field of forensic anthropology would be further strengthened by developing standardized training modules in areas beyond technical competencies, such as laboratory management, court testimony, and managing vicarious trauma.

Laboratory accreditation following international standards such as International Organization for Standardization (ISO) 17025 and ISO 17020 is the gold standard for forensic laboratory management and soon may become a requirement for laboratories receiving federal support, including grant funds. However, the language of international standards and the management requirements are not intuitive. Students should be introduced to appropriate laboratory management that meets international standards during their coursework and not solely through on-the-job training. Incorporating these competencies into forensic anthropology curricula would prepare graduates for professional requirements beyond technical skills, including non-technical skills required to work in an accredited laboratory as a member of an interprofessional team of experts.

Analysis of anthropologic evidence is the first step of case processing that often culminates in testimony. The requirements and limitations of forensic testimony are being defined as the United States Supreme Court is asked to rule on cases involving complex forensic analyses (*Melendez-Diaz v. Massachusetts*, *Bullcoming v. New Mexico*, and *Williams v. Illinois*).³⁻⁵ Students must have a sound understanding of court proceedings, as well as the professional responsibilities, ethical obligations, and rights of expert witnesses. They must be prepared to answer appropriate questions with clear, concise answers that are palatable by the jury and to decline fielding questions outside of their expertise or role in the case and, therefore, best handled by other experts. Negotiating the witness stand is not a skill that should be learned on the witness stand, but rather learned in the classroom through targeted, outcome-focused training modules.

Vicarious trauma is emotional residue that practitioners experience from hearing trauma stories and witnessing pain, fear, and terror that trauma survivors have endured. Few anthropologists function solely in a role of a forensic scientist, receiving and analyzing specimens with no exposures to the individuals connected to the evidence. Most anthropologists, especially those employed by medical examiner offices, wear multiple hats, putting them in direct contact with family members of the recently deceased. This exposure places anthropologists at risk for vicarious trauma. Developing core competencies in the areas of professional development and personal growth that provide students with healthy coping mechanisms to respond to stress is needed.

Laboratory management, expert testimony, and navigating vicarious trauma are skills needed by forensic anthropologists that are equally as important as well-recognized technical competencies (e.g., estimating sex, ancestry, age, and stature) for performing at the level of a practicing professional. Forensic anthropology students must be introduced and become competent in these areas prior to serving as practitioners. The field of forensic anthropology will be greatly strengthened by developing and employing standard educational models, program curricula, and continuing professional education focused on developing these competencies.

Reference(s):

1. *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993.)
2. *Kuhmo Tire Company, Ltd. v. Carmichael* 526 U.S. 137 (1999).
3. *Melendez-Diaz v. Massachusetts*, 557 U.S. 305 (2009).
4. *Bullcoming v. New Mexico*, 564, U.S. 647 (2011).
5. *Williams v. Illinois*, 567, U.S. 50 (2012).

Forensic Anthropology, Education, Core Competencies