



Pilot Surgical Anatomy Curriculum for Complex Cranial and Skull Base Procedures: Early Resident Experience at the University of Oklahoma

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Background

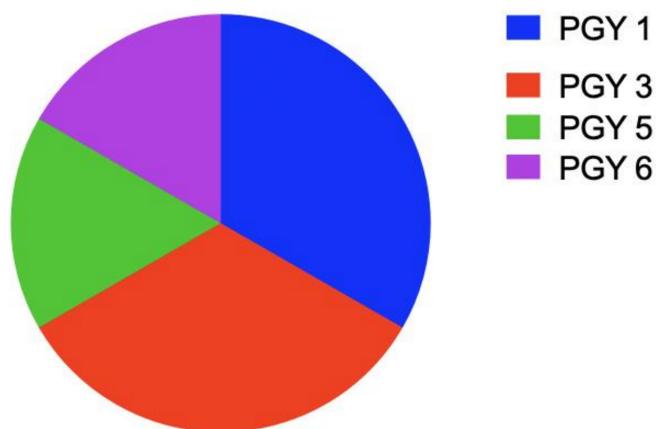
Cadaver-based surgical anatomy training enhances resident knowledge and confidence in complex cranial and skull base procedures, yet implementation models vary.

We developed a pilot curriculum integrated into OU's Surgical Innovations Lab and report preliminary resident feedback from the first 6 months.

Methods

Between May and September 2025, 6 themed cadaveric sessions were conducted. Each session included a 45 min didactic, faculty demonstration, and supervised hands-on dissection.

Preliminary post-session surveys were completed by 6 residents (PGY1–6), assessing preparation, anatomic understanding, confidence, logistics, and overall session rating. Likert responses were summarized as median (IQR). Free-text responses were qualitatively analyzed.



Total=6

Results

Preliminary survey responses were received from 6 residents spanning PGY1–6, with prior cadaver experience ranging from 1–2 to more than 5 sessions.

Residents reported moderate pre-session knowledge (median 3/5), which improved substantially following hands-on dissection, with median scores of 10/10 for anatomic understanding and 9/10 for confidence in performing approach steps.

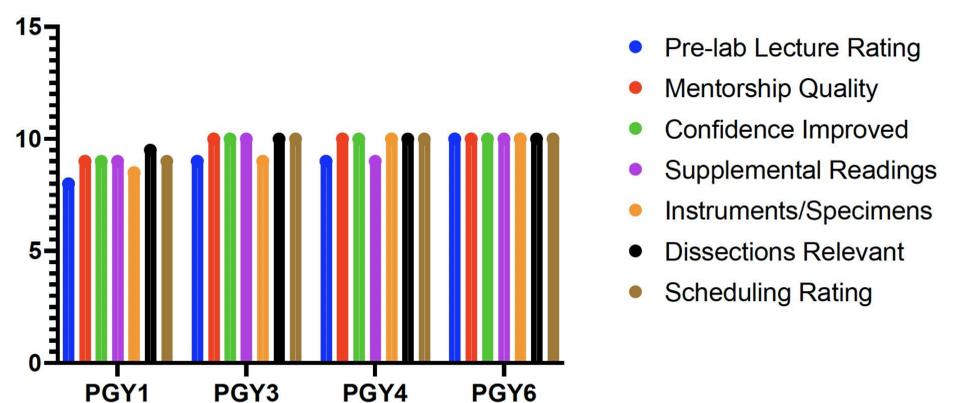
Pre-lab materials, mentorship, and access to instruments and specimens were highly rated (median 8–10/10).

All respondents considered the sessions highly relevant to operative training and recommended continuation of the curriculum.

Residents highlighted the value of small learner-to-station ratios, interdisciplinary faculty involvement, and correlation with imaging as major strengths. Barriers to attendance included clinical duty conflicts (100%), lack of protected time (25%), and scheduling constraints (12.5%).

Free-text feedback suggested that adding 3D pre-lab anatomy resources or laminated dissection guides could further enhance the educational experience.

Survey Answers



Conclusions

This pilot demonstrates that a structured, faculty-led cadaver curriculum for complex skull base procedures is feasible, well received, and enhances resident confidence and anatomic understanding.

Key barriers include clinical duties and limited protected time. Expansion with structured feedback and objective skill assessment will be critical in evaluating its long-term educational impact.