

Medical Students' Perspective – the Role of Technology in Anatomy Teaching: Striking the Right Balance [Letter]

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Rosemary Clarke ¹
Daniel George ²

¹University College London, Faculty of Medicine, London, UK; ²Imperial College London, Faculty of Medicine, London, UK

Dear editor

It was a pleasure to read the study by Zargaran et al¹ regarding utilisation of different methods of learning anatomy. Whilst we agree that medical students use technological approaches as adjuncts to cadaveric teaching, it is hard to conclude whether these novel teaching methods should be integrated into traditional undergraduate curriculums.

The study did not investigate whether adjunctive technological methods resulted in better anatomy exam results compared to cadaveric teaching alone. The questionnaires used were designed to investigate the student's preference of teaching method, not their understanding of anatomy. The respondents likely volunteered to take part in the student society-led event rather than be selected for their anatomy knowledge. Therefore, we cannot assume that the teaching methods preferred by the students were also the most effective in improving exam performance. A standardised anatomy test² could have been used to identify whether students preferring cadaveric teaching with adjunct technological methods attained better scores than those using cadaveric-only approaches.

Additionally, the study identified that the proportions of pre-clinical and clinical medical students using anatomy-based apps were not significantly different, which the authors attribute to the importance of anatomy knowledge throughout all years of medical school. However, another explanation is that the students forgot to uninstall these apps after the pre-clinical phase and did not use them in their clinical years. The authors state that usage of anatomy apps was assessed as part of the study methodology, though these results are not formally reported. It is therefore difficult to assess the students' level of interest in using anatomy apps throughout medical school.

It is unclear whether the respondents were from the same university. There are differences in how cadaveric teaching is carried out between different institutions such as, variation in the total duration of cadaveric teaching, the amount of support given to students when dissecting, the use of peer teaching,³ or even the method of embalming, which could cause discrepancies in learning from cadavers.⁴ Therefore, the preference for cadaveric teaching identified in this study may not be representative of medical students nationwide, as corroborated by contrasting results on dissection versus prosection by Ali et al.⁵

Correspondence: Rosemary Clarke
University College London, Faculty of Medicine, Gower Street, London, UK
Tel +44 7481777676
Email rosemary781@gmail.com

Furthermore, the usage of online resources could be due to the logistical limitations of cadaveric teaching, as opposed to their lack of effectiveness. Finite teaching sessions and limited opportunity to return to a dissection or prosection, for self-directed learning, may cause students to utilise extracurricular resources, such as apps and videos, which are more available. Future studies could highlight whether these online resources would continue to be extensively used by students if cadaveric teaching was increased and made more accessible, thus determining whether they act as supplementary or primary teaching resources.

To conclude, the study could have benefited from investigating the effectiveness of technological methods as adjuncts to cadaveric teaching in anatomy knowledge acquisition. Additionally, the usage of these novel approaches should be reported to evaluate whether traditional undergraduate medical teaching curriculums should be adjusted.

Disclosure

The authors report no conflicts of interest in this communication.

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