Challenges and Future Directions in Teaching and Learning Anatomy

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Background: Anatomy is widely appreciated as being among the most significant components of medical education and the study of anatomy through the dissected cadaver is viewed as the uniquely defining feature of traditional medical courses. However, medical education is undergoing rapid changes; one of these changes has centered on arguments about how best to teach anatomy.

Challenges: The reorganization and restructuring of medical curricula to accommodate new courses such as molecular genetics resulted in an inevitable reduction of anatomy teaching hours especially those allocated for dissection. The introduction of Problem-Based Learning (PBL) in many medical schools has presented some challenges and opportunities to the teaching and learning of Anatomy. Growing numbers of anatomy departments have opted to dispense with compulsory anatomical dissection. The change is partly due to philosophical changes in educational methods and also to increased competition for student time.

Future Directions: We appreciate that the teaching of anatomy in a PBL approach is a departure from the traditional. However the focus of medicine is changing and the mere fact of something being traditional does not demonstrate its validity. Integration of knowledge between disciplines through coherent and collaborative course design is a central feature of the modern medical curriculum. Provided that adequate anatomy learning objectives are set and provided that these are assessed in an appropriate manner then contextualised learning will still take place. Surely it is time to break undergraduate anatomy from the historical shadow of the surgeon and concentrate on providing a core curriculum that has relevance and applicability. Our approach in teaching and learning needs to reflect this.

Conclusions: Newer methods of anatomy teaching should encourage 'deep learning' and relevance rather than 'superficial learning' that is the consequence of the rote learning of traditional anatomy courses. By and large students do not experience patients as cadavers; rather they encounter patients as living individuals and through imaging techniques. If this is the most relevant way to learn anatomy, then this is the way anatomy should be taught. As a result, alternatives to cadaver dissection have emerged which include prosected specimens, plastinated models, sectional anatomy, computerized medical images, living anatomy, and

arts and humanities. Issues like defining core anatomy knowledge, the curriculum context, students' number and resources, how to teach relevant anatomy in a limited time, and suitable assessment strategies to satisfy the learning outcomes appropriate for the new graduate in medicine will be further discussed.