Dissection in Anatomy Education

The tradition of human cadaver dissection in anatomy education is essential to discussions evaluating the introduction to the inner workings of the human body and medicine. But when faced nationally with decreasing contact hours and completed eight additional dissections and brief individual presentations when compared to their physician assistant and physical therapy colleagues enrolled in the same course in fall of 2016. The performance of the individual anatomical structures covered in the dissections on the four unit practical exams was compared both to the previous year's cohort of graduate students and to the current students noted positive effects on their confidence in and comfort with anatomical knowledge during examinations and subsequent demonstrations and the students' unit practical examination scores and final course grade. This study is continuing with data from the 2017 course and cohort.

Results

The quantifiable and perceived values of student cadaveric dissection in anatomy education are essential to discussions evaluating the introduction to the inner workings of the human body and medicine. But when faced nationally with decreasing contact hours and completed eight additional dissections and brief individual presentations when compared to their physician assistant and physical therapy colleagues enrolled in the same course in fall of 2016. The performance of the individual anatomical structures covered in the dissections on the four unit practical exams was compared both to the previous year's cohort of graduate students and to the current students noted positive effects on their confidence in and comfort with anatomical knowledge during examinations and subsequent demonstrations and the students' unit practical examination scores and final course grade. This study is continuing with data from the 2017 course and cohort.

Evidence-based Recommendations for Dissection in Anatomy Education

The quantitative results showed a statistically significant correlation between the additional dissections and demonstrations and the 2018 MMA students' unit practical exams and overall course grade. Therefore, we fail to reject the null hypothesis. However, the qualitative results displayed that the majority of students had a positive opinion about the additional dissections and demonstrations, and the increase in confidence and perceptions of individual competence suggest there is benefit to including dissection—graded or not, placebo effect or otherwise—in anatomy education.

The following are evidence-based recommendations formed through this analysis:

- Anatomical dissection tasks must be deliberate and target the learning objectives of the laboratory session.
- Intensive student dissection should be utilized especially for content that requires a thorough understanding of spatial relationships and anatomical planes.
- Hold students to a high standard of anatomical knowledge and professionalism that is appropriate to their colleagues' chosen career path(s) and clinical relevance.
- Graded dissections and demonstrations are beneficial particularly to anatomy graduate students, as building expertise in the field, to gain confidence in their ability.

References