Abstract

Improving Clinical Anatomy Recall and Spatial Relationship Reasoning in Physician Assistant Students

The biotechnical advances of the last century require the student of medicine to assimilate voluminous amounts of information in a short period of time to prepare for patient care. This fact reverberates even more loudly for the physician assistant (PA) student because of the incomparable time constraints placed on their preparation time. Adequate preparation in anatomy is a necessary element of patient care, yet studies have demonstrated that medical students are seen by their clinical preceptors as being inadequately prepared in the discipline. The retention of anatomy rudiments by PA students has never been formally compared to that of medical students, but is assumed to mirror medical student performance. A new clinically relevant anatomy curriculum, designed to improve retention of fundamental material and improve spatial reasoning skills in a fewer number of contact hours, was evaluated at one PA program.

Methods: In this prospective, blinded cohort study, retention of clinically relevant anatomy and spatial reasoning skills was tested using a validated examination tool. The Yale PA Class of 2007 (controls, n=33) was taught using the old curriculum; the PA Class of 2008 (cases; n=30) was taught using the new curriculum. Case and control group mean test scores will be compared using unpaired t-test ($\alpha = 0.05$).

Results: Preliminary review of the data demonstrates a control mean score of 30.7% and a case mean score of 37.5%. Analysis will be performed to determine if the groups are significantly different. PA students' grades were slightly lower than those of the medical students (mean 44.5%). PA students performed better in abdominal and inguinal anatomy compared to the medical students. The data will be analyzed fully and results will be presented at the 2007 PAEA national conference.

Significance: Teaching anatomy in a more effective manner fosters improved recall in the clinical setting which in turn may improve physical exam skills and interpretation of radiological tests. This improved curriculum will improve compliance with the ARC-PA standards and not impose additional time constraints upon already limited PA programs.