Introduction

- There is a two year gap between learning anatomy and applying it clinically.
- Clinicians feel that the current anatomical education of medical students is inadequate.
- Students do not feel confident in their anatomy knowledge and have difficulty transferring it from the classroom to the clinic.
- Previous studies have quantified this knowledge deficit, specifically for the surgery and obstetrics/gynecology (ob/gyn) clinical rotations.
- Recommendations for improvement include vertical integration or nesting, so that relevant topics are revisited from Year 1 to Year IV.
- Using principles of adult learning and instructional design, a series of interactive e-modules were created to review clinical anatomy in areas students were found to be weakest.
- The goal of this study is to evaluate the impact of this newly designed method of teaching clinically relevant anatomy to medical students on surgical rotations.
- The surgery curriculum will implement and evaluate the use of interactive e-modules. The ob/gyn curriculum will combine the use of interactive e-modules and hands-on anatomy laboratory sessions.

Methods

- Institutional Review Board approved protocol:
  - MSIIIs at GWUMC (N=189)
  - 20-25 question exam: 15-10 MCQs and 5-10 image labeling
  - Exam had basic science and clinical input
- These questions were compared against those from the relevant anatomy exams during their first year (t-tests with corrections)
- Based on this knowledge gap, e-modules were created to review relevant clinical anatomy.

Results Phase 1

- Two methods of vertical integration were created.
- Preliminary results Phase 2
  - Retention at our institution is consistent with national averages.
  - Preliminarily, modules appear to be helping students improve knowledge retention.
  - Many students find modules effective and useful.
  - The largest barrier to module use is not having enough time to use the modules.

Conclusion

- Retention at our institution is consistent with national averages.
- Preliminarily, modules appear to be helping students improve knowledge retention.
- Many students find modules effective and useful.
- The largest barrier to module use is not having enough time to use the modules.
- Future Directions: Multi-centered trial.

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