Engaging the Body and Mind: Student Perceptions of Embodied Learning in Medical Education

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INTRODUCTION

Embodied Learning Concepts:

- Active learning utilizing human senses and engagement with course material and their environment
- Better application of knowledge
- Linked to improved retention of knowledge

Application in Medical Education:

- Medicine requires all the human senses – learning is not solely cognitive!
- Preclinical curriculum has historically been disembodied in nature
- Limited research on utility of embodied learning within medical training

METHODS

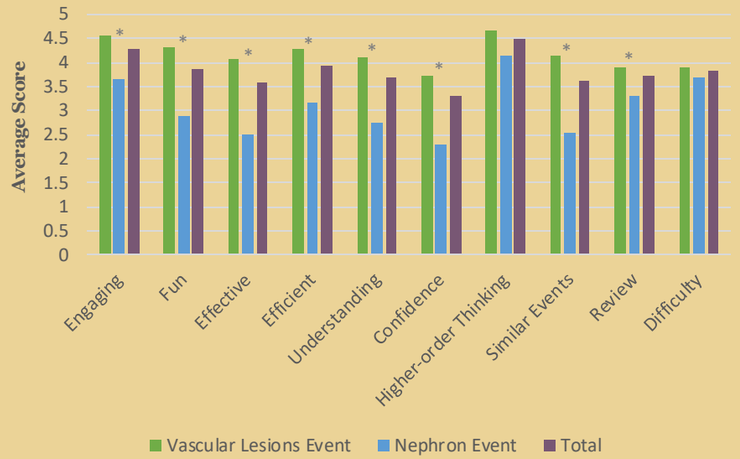
- Two separate embodied learning events in two different preclinical courses
  - **Nervous System –** Vascular Lesions Event
  - **Renal and Genitourinary Systems –** Nephron Physiology Event
- Survey administered to students after each event – gather perspective on perceived student utility of embodied learning events
  - 5-point Likert scale
  - Ten different domains evaluated
  - Individual free-response section
- Additional multiple-choice test distributed during Nephron Physiology Event
  - Same test given pre-/post-event
  - Assessed course topics reviewed during event

RESULTS

Survey Results:

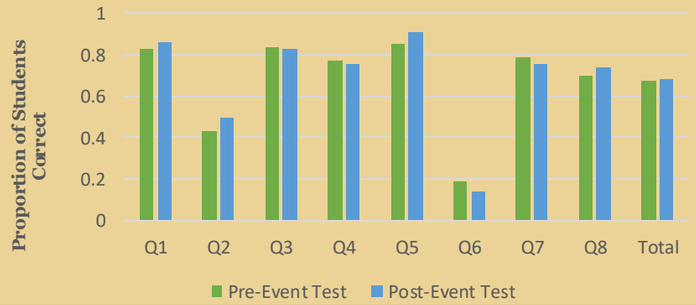
- Vascular Lesions Event, N = 43
- Nephron Physiology Event, N = 20

** Statistically significant differences between events*



Nephron Physiology Event Test Results:

- Pre-event test, N = 74
- Post-event test, N = 65



DISCUSSION

Notable Trends:

- Nephron Physiology Event consistently scored lower across all domains
  - New event?
  - Event & course placement within curriculum?
- No statistically significant differences between pre-/post-event test results

Student Feedback:

- Choose group sizes or work independently
- Time constraints
  - Fewer cases – allow more time for review of material
- Different event placement(s) within course(s)

CONCLUSIONS

- Engaging and fun events requiring higher-order thinking
- No significant immediate improvement in comprehension
- **Future research**: retention and application of reviewed material

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