

Incorporation of Handoff Procedure Training into Undergraduate Gross Anatomy Curriculum Could Improve Learning and Clinical Preparedness



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INTRODUCTION

- Handoff procedures, the transfer of patient information and responsibility, in the healthcare setting are a practice that reduce adverse events and improve patient safety.¹
- Research demonstrating the inaccuracies in postgraduate handoff execution has indicated a need for specific undergraduate training and education.²
- Wayne State University School of Medicine (WSUSOM) has implemented training in the undergraduate gross anatomy curriculum through lab dissection handoffs.
- Dissection handoffs follow a similar procedure to clinical handoffs in that the students relay information such as dissection objectives, relevant structures, and cadaver status to a group of their peers.
- The dissection handoff serves the dual purpose of gross anatomy education as well as the development of skills and knowledge to complete clinical handoffs in the future.

OBJECTIVE

Our study analyzes a first-year cohort of WSUSOM students. These students were surveyed to investigate the effects of this implemented handoff curriculum.

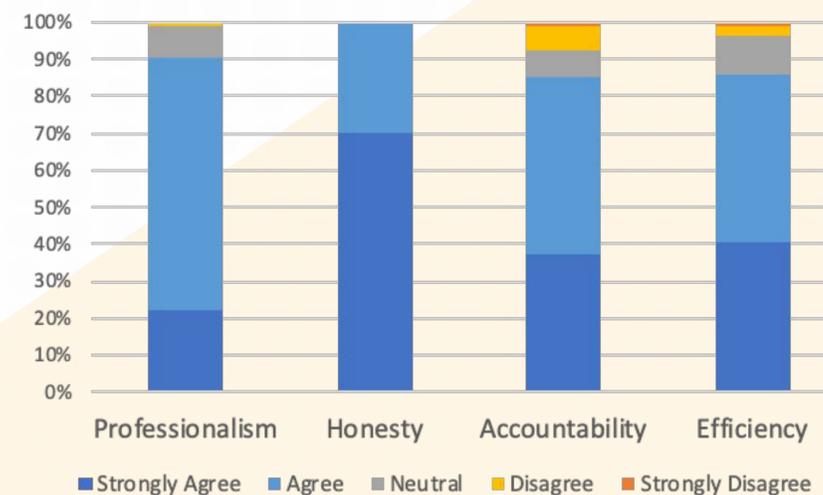
METHODS

- For Gross Anatomy lab, groups of six students were subdivided into two groups of three. One of these groups of three performed a dissection, following a provided checklist. Upon completion of the dissection, the dissection group executed a handoff to the other group of three using the same checklist. The two groups traded the roles of “dissecting team” and “receiving team” each session.
- The provided checklist contained session objectives, structures to be found, as well as space to list abnormal findings and discuss errors or concerns. The dissecting team filled out the checklist during the lab session and signed off on its completion.
- While delivering their handoff, the dissecting team demonstrated the structures to the receiving team and reviewed their findings and concerns. The receiving team confirmed understanding of the dissection components and signed off on receiving all components of the dissection.
- A 15 Likert and 3 open-ended question survey was administered electronically to the first-year student cohort (N≈290) at WSUSOM following completion of the Gross Anatomy course. Questions assessed overall student sentiment, exhibition of clinical handoff associated skills, and perception of effectiveness of the curriculum. The Likert responses were coded and the data were analyzed with descriptive statistics. Content analysis was conducted for themes in open-ended responses.

The WSUSOM chapter of Institute for Healthcare Improvement Executive Board used Microsoft Excel for data entry and organization. Excel was also used to make relevant figures visualizing student responses to the survey.

RESULTS

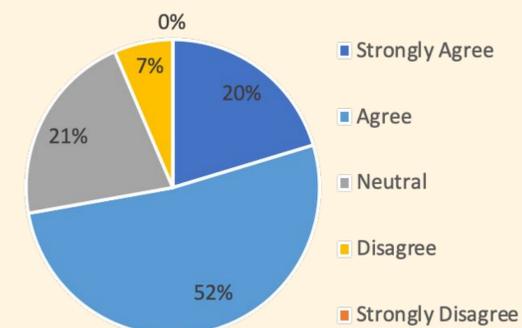
Students agreed that they were able to exhibit many of the traits needed in clinical handoffs during these exercises including professionalism, honesty, accountability and efficiency.



Values below include both “strongly agree” and “agree” responses

- **91%** believed they gained skills in professionalism.
- **100%** felt they could be honest with the receiving team.
- **85%** believed that the handoff added accountability to the dissection.
- **86%** believed they completed handoffs efficiently

72% believed themselves to be well-prepared for clinical handoff due to this training.



Response rate was 37.2% (108/290)

Qualitative Feedback

“I felt it was relevant to teach us this practice, that it builds good habits and that it gave us early exposure to a very important practice”

“I liked practicing patient presentation skills by presenting the dissection. Having the opportunity for peer-to-peer instruction and the ability to ask questions of my peers who performed the dissection.

CONCLUSIONS

- The present handoff procedure training allowed students to develop and demonstrate numerous skills vital to clinical handoffs. It established perceived skills in professionalism and communication skills, while also building student preparedness and confidence for clinical handoffs through procedural practice. Additionally, it improved learning of anatomical knowledge.
- A limitation of this study is the fact that it relied solely on subjective student perception of ability to measure outcome.

FUTURE DIRECTIONS

- In the future, the curriculum could assess students’ ability to perform the components of the dissection handoff and better study the effectiveness of the curriculum at preparing students for clinical handoffs.
- This could also include a longitudinal analysis of this training’s effectiveness by objectively measuring ability to complete a handoff throughout third year clerkship and postgraduate patient care for this cohort

REFERENCES

1. *Communication strategies for patient handoffs*. ACOG. (2016). Retrieved from <https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2012/02/communication-strategies-for-patient-handoffs>.
2. Liston BW, Tartaglia KM, Evans D, Walker C, Torre D. Handoff practices in undergraduate medical education. *J Gen Intern Med*. 2014;29(5):765-769. doi:10.1007/s11606-014-2806-0