

Can learning from cadavers teach students about wellness, personal development, and professional identity formation? An exploration of first-year medical students' reflections on the cadaver dissection experience

Introduction

Growing evidence supports the use of narrative medicine activities centered around the human cadaveric experience, such as reflective writing, to support elements of medical student wellness. These activities promote psychological and professional development, increase resilience, protect against burnout and foster a sense of connection and community.

This study is a qualitative analysis of a reflective writing exercise utilizing grounded theory to answer the question: "What is the impact of the first-year cadaver dissection anatomy experience on the personal and professional development of medical students?"

Objectives

- 1) to identify themes that emerge as students reflect on the emotional elements and impact of their dissection experience
- 2) to examine the benefits of reflective writing for students' wellbeing and learning

Methods

- This cross-sectional study was conducted at the conclusion of the first-year anatomy module.
- Participants consisted of 117 first-year United States allopathic medical students, divided into 20 groups of six first-years.
- A four-item questionnaire was designed to elicit the students' experiences and provide them an opportunity for introspection.

Table 1: Four reflective exercise questions

1. In what ways do you think learning from your donor has changed the way you will approach patients going forward?
2. How has learning from your donor impacted the relationship you have with your own body? (This could include how you think of your own mortality and identity.)
3. How has learning from your donor changed your thoughts and hopes for your life?
4. What sentiments would you have liked to share with your donor if you could meet them now?

- Grounded theory analysis was used to explore themes.

Results

Table 1. Primary themes and subthemes

Theme	Subtheme
1. Gratitude	No subthemes
2. Patient's Story	No subthemes
3. Learning Anatomy	3.1 Lessons from my Donor 3.2 Tangible/Tactile Learning 3.3 Disease Process 3.4 Visual Learning
4. Diagnosis	4.1 Critical Thinking about Dx 4.2 Diligence 4.3 Creativity
5. Humanity and Compassion	No subthemes
6. Reflection	No subthemes
7. Career Development	No subthemes
8. Lifestyle and Prevention	8.1 Body Appreciation 8.2 Preventing Disease
9. Empathy	No subthemes
10. Mortality	No subthemes

UCF Students in Anatomy Lab

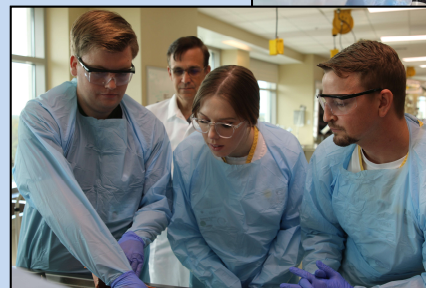


Photo credit: UCF
College of Medicine

Discussion

The practice and art of medicine increasingly involves use of rapidly-advancing technology – a Pandora's gift that simultaneously simplifies and complicates roles. As we struggle to master the benefits of technology and evade its tangles, physicians, students, and educators confront the inevitable question: "for this situation, for this moment, can a digital interaction ultimately offer as much ultimate wellness as hands-on engagement?" Or, in the context of the anatomy lab: "What would we lose if we let another person dissect for us, or we dissected an electronic image instead?"

The educational effects of reflective writing resembled those found in other areas of medical education, with the following novel themes emerging: empathy, humanism, and compassion. These novel themes are being increasingly recognized as vital components of medical student wellness.

Conclusion

Our findings underscore that the benefits of the in-person dissection are influenced by the interplay between the emotional, academic, and physical dimensions of the human cadaveric dissection experience, offering medical students holistic growth opportunities that are less impactful when encountered through alternative technologies.

Institutions utilizing human cadaver dissection should consider integrating strategies such as narrative reflection into their curriculum to promote student personal and professional growth and wellness.

Human cadaver dissection offers medical students holistic growth opportunities that are less impactful when encountered through alternative technologies. Institutions utilizing HCD should maximize this high-yield, easy-to-implement opportunity to foster medical students' professional identity development.

Acknowledgments

We would like to thank the Anatomy Lab staff including Jennifer Mark, Heather Hargreaves, and Nice who make these opportunities available to our students.