

An Interactive Online Module to Improve Student's Understanding of Pelvic Neurovasculature

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INTRODUCTION

- The integration of online interactive learning tools with traditional methods like lectures and dissection has emerged as a valuable resource in medical education, consistently ranked highly in terms of usefulness¹
- Previous research has highlighted the efficacy of combining online modules with dissection to enhance student performance in anatomy.^{1,2,3}
- Progressive drawings emphasizing a layered approach to pelvic anatomy have shown to enhance understanding and performance.
- Midsagittal pelvis hemisection dissection has been associated with a 47% improvement in students' ability to identify neurovasculature³.
- This interactive module, comprising illustrations and donor pelvic prosection images, aims to bridge the gap between lecture material and donor identification, ultimately enhancing performance in pelvic anatomy.

MATERIAL AND METHODS

Researchers prepared a prosection of the female pelvis. An online module was created with donor pelvic prosection images and illustrations to help students visualize pelvic anatomy.

Modules and prosections were provided first-year medical students taking anatomy course

Post-module survey was administered to gauge its effectiveness and impact on students comfort and confidence structure ID.

The effectiveness of the module and prosection as learning tools was determined based on survey results

RESULTS

- Out of 125 students, 15 students responded to the survey.
- Prior to utilizing the module, 77% of students rated their comfort with pelvic neurovasculature as uncomfortable or somewhat uncomfortable
- Following module use, 100% of students reported that it effectively enhanced their comprehension of female pelvic anatomy and pathologies.
- Additionally, 92% of students either strongly agreed or somewhat agreed that the module improved their ability to identify structures during practical exams.
- 100% of students either somewhat agree or strongly agree that the module, when combined with pelvic prosection, enhanced their exam preparedness.

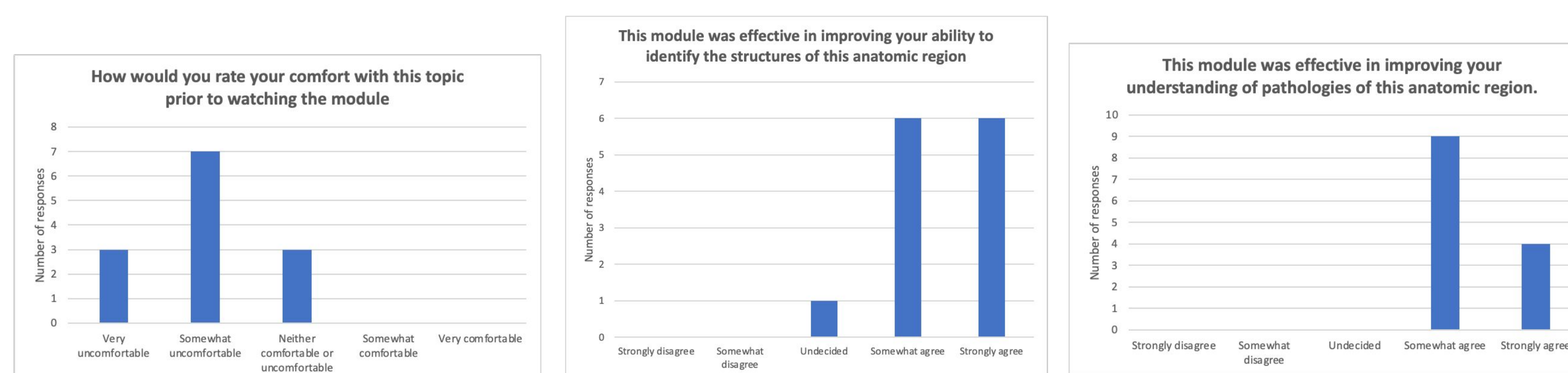


Figure 1: The figure above displays graphical representations of survey results from students who completed the survey at the end of the pelvic module.

MODULE IMAGES

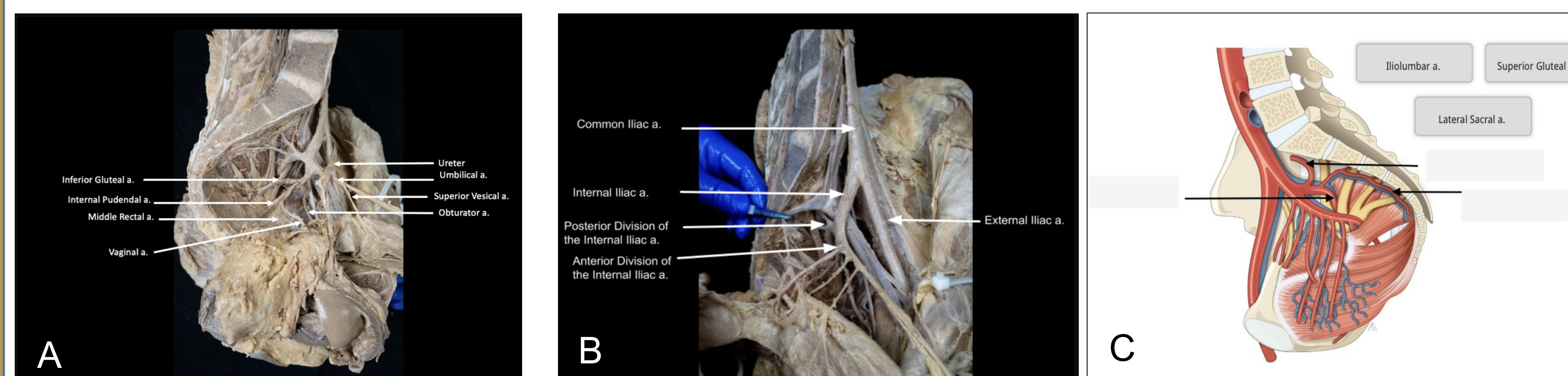


Figure 2: Examples from the module include labeled prosected pelvis images (A and B) showing arterial supply and quiz questions (C) with interactive drag-and-drop activities to enhance student understanding.

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DISCUSSION

- With the growing reliance on online resources among students, educators must explore interactive online methods to facilitate anatomy education.
- Anatomical models have shown their worth, and the development of interactive online modules provides a crucial resource in medical education.¹
- Previous research has highlighted the effectiveness of online interactive tools as the most useful resource for students.¹
- This project showcases how combining an interactive online resource with a prosected donor specimens enhances students understanding of anatomy and related pathologies.
- This project underscores the importance of bridging classroom learning with online resources to enhance students' understanding of complex anatomical concepts.

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