



Original Article

The Enduring Value of Cadaveric Dissection: A Study of Medical Student Attitudes and Perceptions in Anatomy Education

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OPEN ACCESS

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Received: 19-11-2025

Accepted: 10-12-2025

Available online: 18-12-2025

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Medical and Pharmaceutical Research

ABSTRACT

Background: Despite the proliferation of digital and virtual tools in medical education, cadaveric dissection remains a cornerstone of anatomical sciences. Understanding contemporary medical student attitudes toward this traditional method is crucial for curriculum development.

Aim: This study aimed to assess the attitudes and perceptions of medical students regarding cadaver-based learning in anatomy.

Methods: A cross-sectional survey was conducted among 200 medical students. A structured questionnaire using a 5-point Likert scale (Strongly Agree to Strongly Disagree) was used to collect data on cognitive, emotional, and behavioural aspects of the dissection experience.

Results: An overwhelming majority of students held positive views on the educational value of dissection. Key findings include: 91% agreed that dissection provided a vital three-dimensional perspective (182), 89% felt it aided knowledge recall (178), and 87% found it made learning more interesting (174). Furthermore, 93% of students reported developing deep respect and empathy for the cadaver (186). Despite this strong positive reception, a significant proportion experienced anxiety, with 80.5% (161) reporting anxiety before, during, or after their first dissection. Notably, 94.5% (189) preferred dissection over other learning methods, and 91.5% (183) believed they would be disadvantaged without it.

Conclusion: Medical students perceive cadaveric dissection as an irreplaceable, highly effective, and deeply impactful component of their education. It is valued not only for its unparalleled pedagogical benefits in understanding spatial anatomy but also for fostering professional attributes like respect and empathy. The concurrent experience of anxiety highlights the need for integrated psychological support, but it does not diminish the overwhelmingly positive perception of dissection's central role in medical training.

Keywords: Anatomy Education, Cadaveric Dissection, Medical Students, Student Perceptions, Anxiety, Professionalism, Curriculum Development.

INTRODUCTION

Anatomy forms the foundation of medical science, and cadaveric dissection has long been considered an indispensable teaching tool. With the rise of virtual simulations and digital learning, debates have emerged about the relevance of cadaver-based teaching. However, dissection not only aids in comprehending complex anatomical structures but also instills respect, empathy, and professionalism among medical students [1,2].

This change raises an important question: what is the role of cadaver dissection today? Supporters believe it gives students a unique, hands-on way to learn about the body's structure, tissue feel, and three-dimensional relationships that digital tools cannot fully match. It also helps develop important professional qualities such as respect for the human body, empathy, and awareness of life and death. However, dissection requires a lot of time and resources and can cause anxiety or emotional stress for many students [3,4].

While previous studies have explored student attitudes, continuous re-evaluation is necessary as educational contexts and student demographics change. This study aims to provide a current, quantitative analysis of medical student perceptions regarding the cognitive, emotional, and professional value of cadaver-based learning, to inform effective and holistic anatomy curriculum design.

MATERIALS AND METHODS

Study Design: Cross-sectional descriptive study.

Participants: 200 first-year MBBS students who had completed at least one semester of anatomy dissection.

Data Collection: A structured questionnaire with 15 statements was distributed. Each statement was rated on a 5-point Likert scale: Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree.

Data Analysis: Responses were tabulated and analyzed as frequencies and percentages to identify trends in perception and attitude.

RESULTS

Table 1: Attitudes and Perceptions of Medical Students Regarding Cadaver-Based Learning (N=200)

	Strong Agree No. (%)	Agree No. (%)	Neutral No. (%)	Disagree No. (%)	Strong Disagree No. (%)
My first Dissection Hall visit was exciting	150(75)	35(17.5)	10(5)	3(1.5)	2(1)
Dissection deepened my anatomy understanding	162(81)	25(12.5)	7(3.5)	4(2)	2(1)
The dissection enhanced my respect towards the human body	145(72.5)	50(25)	4(2)	1(0.5)	0
Dissection makes learning more interesting	174(87)	24(12)	1(0.5)	1(0.5)	0
The dissection helped me to recall what I had learnt	178(89)	19(9.5)	2(1)	1(0.5)	0
It gives me a lasting knowledge	164(82)	31(15.5)	4(2)	1(0.5)	0
It provides a three-dimensional perspective of anatomical structures	182(91)	16(8)	2(1)	0	0
I had anxiety before, during and after my first dissection	127(63.5)	34(17)	21(10.5)	8(4)	10(5)
I prepared myself mentally for dissection	41(20.5)	68(34)	32(16)	34(17)	25(12.5)
I had a prior exposure to a dead body	5(2.5)	7(3.5)	34(17)	87(43.5)	67(33.5)
I prefer dissection over other methods of learning anatomy	167(83.5)	22(11)	7(3.5)	3(1.5)	1(0.5)
I will be disadvantaged if I do not attend dissection	163(81.5)	20(10)	6(3)	7(3.5)	4(2)
More time should be allocated to dissection Sessions	158(79)	32(16)	5(2.5)	3(1.5)	2(1)
I attend dissection regularly	181(90.5)	12(6)	5(2.5)	1(0.5)	1(0.5)
I have deep respect and empathy for the cadaver	186(93)	11(5.5)	2(1)	1(0.5)	0

DISCUSSION

Most students strongly agreed that dissection is the best way to learn anatomy. The highest agreement was for its ability to show the body in three dimensions (91% strongly agreed, 99% agreed overall). About 89% said it helped them remember what they had learned, and 87% said it made learning more interesting. Almost all students (97.5%) felt that dissection improved their understanding of anatomy and gave them long-lasting knowledge. While 92.5% of students found their first dissection exciting, 80.5% also felt anxious. This means that the experience was both exciting and stressful. More than half of the students (54.5%) felt they were not mentally prepared for it, and 94% had never seen a dead body before. Nearly all students (97.5%) said that dissection increased their respect for the human body, and 98.5% said they developed deep respect and empathy for the cadaver. This shows that dissection helps build professionalism and ethical values among students. Most students (94.5%) preferred dissection over other methods of learning anatomy. About 91.5% believed they would be at a disadvantage if they did not take part in dissections. In line with this, 95% said they attended dissection classes regularly, and the same percentage wanted more time to be given for these sessions.

This study shows that modern medical students still consider cadaveric dissection an essential part of learning anatomy. Students value it most for helping them understand three-dimensional structures and retain knowledge better—benefits that textbooks and digital tools cannot fully match. The fact that many students felt they would be disadvantaged without dissection strongly supports keeping it in the core curriculum. At the same time, the mix of excitement and anxiety seen in the results highlights the emotional impact of the first dissection experience. Since many students felt mentally unprepared, medical schools should include orientation and counseling sessions to discuss ethical aspects, emotional coping, and reflection. The findings also emphasize that dissection plays a key role in shaping professionalism, as most students developed deep respect and empathy for the cadaver, showing that it is not just a learning activity but a meaningful experience that helps build compassion and human values in future doctors.

CONCLUSION

Even with all the new technology, the cadaver remains the most important first teacher for medical students, as this research confirms that dissection is seen as the best way to build a deep and lasting 3D understanding of the human body, while also acting as a crucial step in professional growth by teaching respect, empathy, and gratitude for the gift of body donation. Therefore, instead of replacing it, medical schools should better integrate dissection by ensuring enough lab time, providing emotional and ethical preparation, and framing it as a foundational step in training competent and compassionate doctors.

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