



1ST Year Medical Students View on Cadaveric Dissections and Prosections

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ABSTRACT

Anatomy deals with structure of human body. 1st year medical student gets their anatomical knowledge through cadaveric dissections. In the present era, with advanced technology the cadaveric dissections lost their importance. So study was conducted on 1st year MBBS students at the end of first year after completion of all dissections to know the importance of cadaveric dissections. Students expressed that they want the cadaveric dissections in their curriculum to develop knowledge and skills and without dissections it is difficult to learn Anatomy. They want to use prosections for quick revision of the subject. Cadaveric dissections are important tool to learn anatomy since long time. Anatomy can be explored through cadaveric dissections and dissections will deepen the understanding of anatomical structures and give a three dimensional perspective of structures. Even with advances in technology and interactive multimedia resources, they have not replaced the student's perception about the importance of cadaveric dissection.

Keywords: Anatomy, Cadaveric dissections, Prosections

1. Introduction

Human body is an amazing machine. All the systems of the body are properly aligned and work in a coordinated manner. To understand the structure and relations in the human body, the medical students are trained in all aspects about human body in their study period.

The study of structure of human body is Anatomy. In first year, medical students dissect the human dead body to acquire anatomical knowledge which remained the cornerstone of medicine

Cadavers are the books in anatomy and Dissections are important tools of teaching as they give the tactile appreciation of every fabric of the human body.

Dissections began in 3rd century and continued as a tool of teaching & training programme for 1st year MBBS students. But the role of dissections in the present era was reduced. In this computerized world, medical students are adopting other ways to gain anatomical knowledge that raised the question about the importance of dissections.

This made us to take the opinion of 1st year students about the experience of the cadaver and its dissections. Feedback was taken from 1st year MBBS students to know their opinion on cadaveric dissections and other methods that helped them to learn anatomy replacing the dissections.

2. Materials & Methods

The feedback was collected from 127 students of 1st year MBBS who were willing to give the feedback. Their opinion on the cadaveric dissections was asked, which they have done from the joining till the end of their first year. This feedback was taken after completion of all human dissections.

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Students were asked to give their feedback without any personal identity to avoid bias in the study. It was explained to them that this act was only to know their importance towards dissections and other alternative methods to learn Anatomy and its application in the clinical subjects.

3. Results

Medical students were excited on entering the dissection hall and seeing the cadaver and only 5% of students were depressed. Most of the medicos were adjusted within 1 week and few students were not comfortable till the end. Most of them were not stressed on entering the dissection hall but felt that the formalin smell was irritating.

50% of students come prepared for dissections and they wanted to do the dissections with the help of friends and teacher. 98% of students expressed that dissections are must to learn anatomy and they have respect & kindness to cadaver as it was living once.

They strongly expressed that dissections cannot be replaced with other methodologies and it must be continued in the curriculum. Even though videos may help in learning the subject but they cannot give the real feel of the tissue. But for quick revision, prosections are useful but dissections cannot be replaced by prosections, as the dissection skills of students help in their future clinical subjects. Finally they suggest their juniors to come prepared for dissections both physically and mentally and follow the dissections regularly in order to acquire knowledge in the subject which forms the base for their medical career.

4. Questionnaire & Results

1. How you felt on the first visit to the dissection hall .

a) Pleasant -8% b) Exciting -87% c) Enjoyed it d) Depressed-5%

2. Your reaction after seeing the cadaver for the first time

a) Fainted 3% b) want to avoid -17% c) excited-79%

3. How long it took for you to get acquainted with the cadavers in the dissection hall?

A) 1 week -83% b) 1 month -10% c) still not comfortable-7%

4. Do you ever had a fear /stress of entering in the dissection hall

a) Yes -23% b) No -77% c) Not at all

5. Are you in stress at the beginning of the dissection?

a) Yes 25% b) No 75% c) Not at all

6. Did you feel the smell of formalin when you entered the dissection hall for the first time?

a) Yes- 96% b) No-4%

7. Will you come prepared and do the dissections regularly?

a) Yes- 47% b) No-53%

8. Do you dissect alone or with somebody's help like friends or teachers

a) alone -3% b) friends -57% c) teacher- 39%

9. How much time was spent by you in reading dissector to understand dissection and its gross anatomy?

a) 1hr 23% b) 30min 52% c) never read the dissector 25%

10. Do you think dissection is must to understand gross anatomy?

a) Yes -98% b) No-2%

11. Do you know that cadaver is the actual teacher as dead teach the living in Anatomy .

a) yes -94% b) never thought of it -6% c) No

12. Do you have any kindness or respect to the cadaver as it was once a living human.

a) Yes -94% b) No -3% c) Never thought of it-3%

13. Do you know the difficulty of procuring cadavers for cadaveric dissections?

a) Yes -55% b)No-45%

14. Are you properly utilizing the cadaver to improve your anatomical knowledge?

a) Yes -55% b) No c)Sometimes-45%

15. Do you agree that dissection is a team work and it potentiates thinking skills ,self &peer evaluation

a) Agree-95% b) Disagree 2% c) I donot know-3%

16. Do you think dissection is the best teaching method to remember anatomical terms,3D relations of the organs and their applied aspects?

a) Yes 94% b) No 6%

17. Do you think dissections should be continued in the syllabus

a) Continued -91% b) stopped 1% c) Donot know 2% d) limited dissections 6%

18. Instead of dissection, other methods like plastic models and computer technology can be applied to learn gross anatomy?

a) Dissection cannot be replaced 61%

b) Videos are interesting but they cannot give the real feel 39%

19. Do you think that instead of regular cadaveric dissections, demonstrations on prosections will give better results?

a)Yes 10% b) no 56% c) not always 34%

20. Do you agree that the anatomical dissections helps in learning future medical subjects?

a)agree 89% b) disagree 1% c) donot know 10%

5. Discussion

Human cadaveric dissection has been the primary medium of teaching gross anatomy to medical students for centuries (1). Scientist of different era acquired the knowledge of human body through dissections of cadavers which they procured by various means. In recent years teaching anatomy by dissections no longer commands as educational material as it was once (2).

Some countries have replaced cadaver dissection with virtual dissections and some others are seriously considering such measures, possibly due to economical factors as well as ethical concerns (3,4).

Recent literature suggested that the cadaveric dissections deliver fundamental regional, relational and topographical knowledge to medical students which is essential for safe and efficient clinical practice .(5,6) Decreased use of dissection as a teaching tool is one of the factors that can have a negative influence on the anatomical knowledge of medical students (7).

Learning anatomy by active exploration through cadaveric dissection actually contributes to improvement of anatomic knowledge (8).

Medical students have opined that cadaveric dissection deepens their understanding of anatomical structures, provides them with a three dimensional perspective of structures and helps them to recall what they learnt. It is noteworthy that the innovative modes of learning anatomy such as the interactive multimedia resources have not replaced student's perception about the importance of cadaveric dissection (9).

The current trend of decline in the number of contact hours in relation to human dissection and consequent suboptimal anatomy knowledge is an area of concern not only for undergraduates but also at the post graduate level for specialities where surgical anatomy is essential (10)

In present times, when medicine is becoming more practical, technical, and specialized, physicians should be aware of the details related to the anatomy of the region they deal with as this will provide them with an intimate knowledge of their science (11).

Long term consequence of this shortage of anatomical knowledge could have serious implications on patient safety and have suggested that medical schools should shift to dissection as the core method for teaching gross anatomy (12).

The dissection room not only imparts anatomical knowledge and also serves as an ideal ground for cultivating humanistic values among medical students. Medical training essentially begins with the cadaveric dissection and nearly all clinicians remember the details of their first interaction with the human cadaver (5). The students should be guided to use the experience of handling a human cadaver as a potential launching pad for them to mature into effective as well as empathetic clinicians (13).

In this study the medical students expressed that dissections should be continued in the curriculum most interestingly they asked for more number of cadavers so that they get the chance of dissection regularly.

6. Conclusion

Dissections are important to gain skills and anatomical knowledge. Nowadays the importance of dissection is reducing which may have a negative impact in the teaching and training programme of medical students but encouraging thing is medical students are very much interested in cadaveric dissections. Apart from providing anatomical knowledge, the dissection hall is the place where humanistic values can be cultivated in medical students which is very important to become mature and empathetic professional.

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