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Original Article

Needs Assessment Study for Introduction of Clinically Oriented Anatomy Sessions for 1st year Medical Students

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Abstract

There has been a paradigm change in the teaching of anatomy to medical students in the past decade. In anatomy teaching for the 1st year medical students, more emphasis has to be given for clinical anatomy rather than loading them with minute anatomical details, which will help them apply their anatomical knowledge for understanding clinical conditions in their clinical years. The department of anatomy set out to assess the felt need of students for the introduction of clinically oriented anatomy sessions for the 1st year medical students, from the students who had completed their anatomy course and are in their clinical years so that a modification of the current teaching can be achieved. A total of 150 1st year MBBS students of 2013–14 batch in a Private Medical College in Chennai who had completed their basic anatomy course were the participants of the study. A validated questionnaire consisting of questions on their opinion on the need for exposure to clinical anatomy in the 1st year, the opportunities, advantages, disadvantages, and method of learning clinical anatomy in the 1st year was administered to students. Feedbacks obtained from students were studied and the results were tabulated. In our study, 70% of the students felt that learning clinical anatomy in the 1st year helped them apply their anatomical knowledge during the clinical years. Furthermore, all the students responded that clinical anatomy must be taught by live demonstration of clinical cases or using a paper case or by both ways. This study showed that a majority of the students wanted to have an early exposure to clinical cases in the 1st year itself, as it will not only help them learn anatomy better but also will enhance their practical knowledge. The feedback obtained from students has clearly established the need for a clinically oriented anatomy teaching in the 1st year of medical curriculum.

Key words: Clinical Anatomy, Feedback, Curriculum

INTRODUCTION

There have been major changes in the teaching of anatomy to medical students in the past decade. During this period, there has been information explosion in medical research and technology and as access to internet is more abundant, effective health-care provision always requires a sound anatomical base.[1] The main aim of medical education is to train students to become physicians.[2] The World Federation for Medical Education's Global standards for basic medical education insists that medical institutions should make sure that vertical integration of clinical sciences with basic biomedical and behavioral and social sciences occurs.[3] There is too much information overload in a discipline-based anatomy curriculum without clinical relevance.[4]

In anatomy teaching for the 1st year medical students, more emphasis has to be given for clinical anatomy rather than loading them with minute anatomical details, which will help them apply their anatomical knowledge for understanding clinical conditions in their clinical years. Our question was whether the current teaching in 1 year anatomy course for the 1st year medical students, giving more emphasis to clinical anatomy? What are the perceptions of students on the current teaching in anatomy course and do they really

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feel that a more clinically oriented approach to teaching anatomy will make them prepared for clinical years? With these questions in mind, the department of anatomy set out to assess the felt need for introduction of clinically oriented anatomy sessions for the 1st year medical students from the students who had completed their anatomy course and are in their clinical years so that a modification of the current teaching can be achieved.

MATERIALS AND METHODS

A total of 150 1st year MBBS students of 2013–14 batch in a Private Medical College in Chennai who had completed their basic anatomy course were the participants of the study. Informed consent was obtained from the participants after explanation of the details of the study. A validated questionnaire consisting of questions on their opinion on the need for exposure to clinical anatomy in the 1st year, the opportunities, advantages, disadvantages, and method of learning clinical anatomy in the 1st year was administered to students. Feedback obtained from students was studied and the results were tabulated.

RESULTS

The results of the study are summarized below.

Question 1: What is the need for the first MBBS students to be exposed to clinical anatomy?

It was observed from Figure 1 that 65 (43%) students felt that clinical anatomy exposure in the 1st year will help them learn anatomy better, while 50 (33%) of students felt it will provide them an enhanced practical knowledge. However, 35 (24%) felt it was too early an exposure.

Question 2: Do you think that there was enough opportunity given to learn clinical anatomy in the 1st year?

From Figure 2, it is observed that nearly two-thirds of the students felt that there was not enough opportunity for them to learn clinical anatomy during the 1st year MBBS course.

Question 3: How do you think that learning clinical anatomy during the first MBBS will help?

It is observed from Figure 3 that on questioning on the relevance of learning clinical anatomy during their 1st year of the MBBS course, 105 (70%) responded by saying it helped them in applying their anatomical knowledge in learning about clinical conditions once they entered their clinical years and 45 (30%) felt that it made understanding of anatomy easier.

Question 4: How do you think that clinical anatomy has to be taught to the first MBBS students?

It is noted from Figure 4 that 120 (80%) felt that live demonstration of clinical cases should be the method of teaching clinical anatomy; however, 13 (9%) felt that a clinical case presentation should be the teaching methodology and 17 (11%) felt that both methods can be used for teaching clinical anatomy to the 1st year students.

Question 5: What do you think are the advantages in learning clinical anatomy in the first MBBS?

From Figure 5, it shown that 88 (59%) students felt that learning clinical anatomy in their 1st year made their clinical postings easier, 50 (33%) felt it made learning anatomy interesting, while 12 (8%) felt that it helped in easier learning of anatomy.

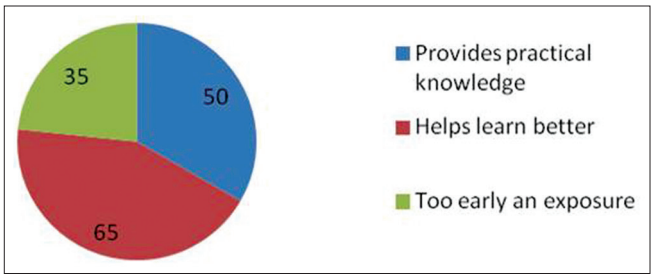

Figure 1: Need for exposure of the first MBBS students to clinical anatomy

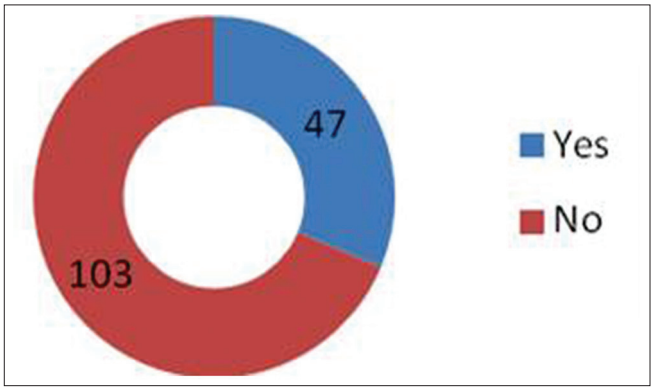

Figure 2: Opportunity to learn clinical anatomy in the 1st year

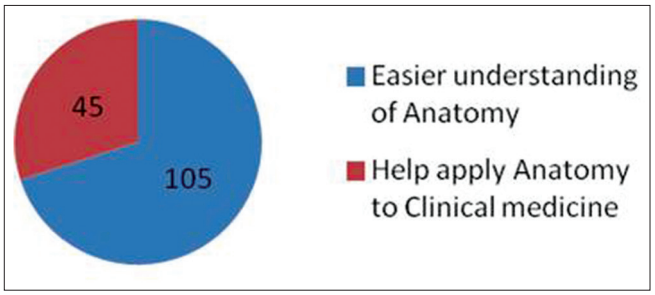

Figure 3: How do you think that learning clinical anatomy during the first MBBS will help?

Question 6: What do you think are the disadvantages in learning clinical anatomy in their first MBBS?

On questioning about the disadvantages in learning clinical anatomy in the 1st year MBBS, it is shown from Figure 6 that 43 (29%) felt it was time consuming, 32 (21%) felt getting orientated to clinical anatomy was difficult, and 19 (13%) found it stressful. However, 56 (37%) felt that there were no disadvantages.

DISCUSSION

Anatomy is regarded as the cornerstone of medical education. A sound knowledge of anatomy is essential for surgeons and also for other medical professionals for examination of a patient, diagnosis, for undertaking interventional procedures, and also for carrying out imaging techniques.[5] There are several challenges faced by the curriculum planners in anatomy education such as reduced teaching hours, technological advances, cost involved in the purchase of cadavers, need for interactive learning, integration with clinical subjects, and reduction in the number of teaching faculties. This has led to remodeling of the mode of instruction of the subject to the medical students.[6] Lectures are the main mode of delivering a large amount of information to the students till date. Traditional anatomy teaching tends to focus more on the details rather than its clinical relevance. Traditional gross anatomy teaching in the 1st year of medical education focuses more on the minute anatomical details rather than the relevance of what is being taught. There are several advantages of learning clinically oriented anatomy with multimedia sources.[7]

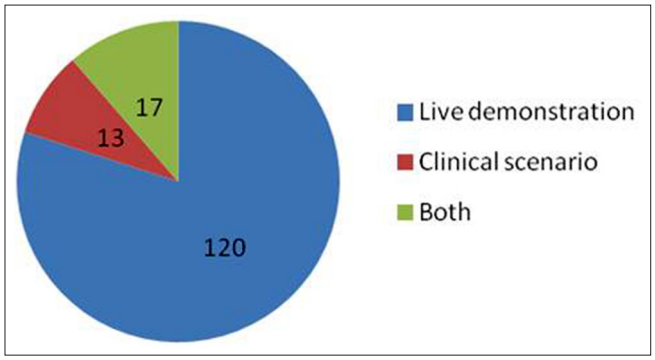

Figure 4: Teaching methodology of clinical anatomy to the first MBBS students

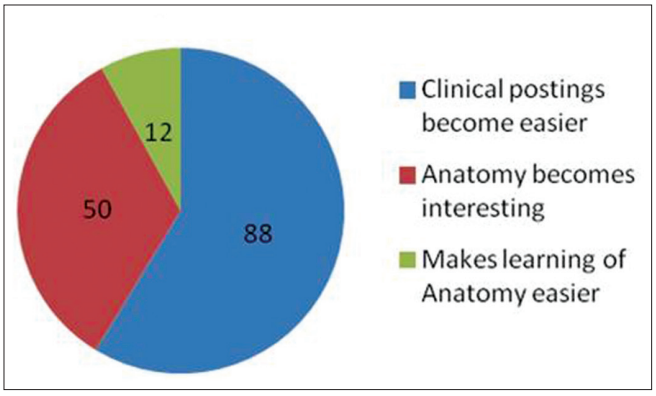

Figure 5: Advantages perceived by students in learning clinical anatomy in the first MBBS

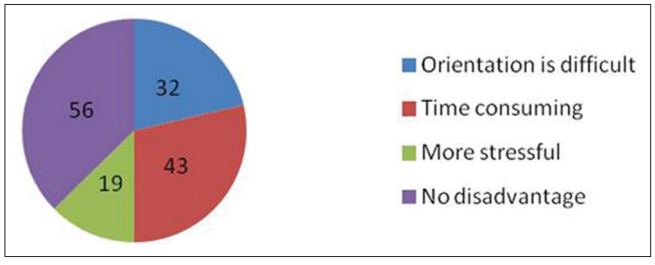

Figure 6: Disadvantages perceived by students in learning clinical anatomy in their 1st year MBBS

In an interview-based survey conducted by Nayak *et al.*, on the amount of anatomy that has to be taught to medical undergraduate students, it is suggested that minute details of anatomy should be avoided and anatomy should be made more clinically oriented. This is in line with our study where our students felt the need for clinically oriented anatomy.

In a study conducted by Holla *et al.*, most students felt that more emphasis should be given to clinically oriented anatomy teaching which is similar to our study findings. In our study, 70% of students felt that learning clinical anatomy in the 1st year helped them in applying their anatomical knowledge during the clinical years. Furthermore, all the students responded that clinical anatomy must be taught by live demonstration of clinical cases or using a paper case or by both ways. Thus, this is in line with Medical Council of India recommendation that early clinical exposure (ECE) has to be introduced as a teaching strategy in the 1st year of medical curriculum.

As suggested by Turney *et al.*, anatomy should change its image of being old fashioned and must incorporate more clinical relevance, IT revolution, models, body paints, and radiographic images and that whatever stimulates interest in the subject should be introduced. In our study, students felt that a clinically oriented anatomy teaching helped them apply anatomical knowledge in the clinical years and also made anatomy learning interesting and easier.

This study shows that majority of the students felt the need for early clinical exposure (ECE) in the first year, which will help them correlate anatomical knowledge with the clinical conditions. The students felt that there was not

enough opportunity for them to learn clinical anatomy in the 1st year. This may be because of the reduction in time in the duration of 1st year anatomy course from 1½ years to 1 year. The authors suggest that carefully planned clinical anatomy sessions with paper cases or with live demonstration of cases will help students understand the anatomical basis of clinical conditions and will train them to be physicians with sound anatomical knowledge.

CONCLUSION

Since our study was done on students who had completed their basic anatomy course, and the feedback obtained from students has clearly established the need for a clinically oriented anatomy teaching and since Medical Council of India insists on ECE, modifications in the form of live demonstration of clinical cases or clinical anatomy lectures can be introduced in the anatomy teaching for the 1st year medical students so that teaching can be made more clinically relevant, and this will benefit the future generation of students of anatomy course who will be trained to be physicians with sound anatomical knowledge.

REFERENCES

1. Holla SJ, Ramachandran K, Isaac B, Koshy S. Anatomy education in a changing medical curriculum in india: Medical student feedback on duration and emphasis of gross anatomy teaching. Anat Sci Educ 2009;2:179-83.
2. Drake RL. Anatomy education in a changing medical curriculum. Anat Rec 1998;253:28-31.
3. Ramachandran K, Chacko TV, Grant J, Bhandary S. Early clinical exposure through innovative interactive clinical anatomy lectures. Natl Med J India 2015;28:291-4.
4. Nayak S, Ramnarayan K, Somayaji SN. Anatomy that must be taught to a medical undergraduate: An interview-based survey in an indian medical school. Anat Rec B New Anat 2005;285:16-8.
5. Turney BW. Anatomy in a modern medical curriculum. Ann R Coll Surg Engl 2007;89:104-7.
6. Drake RL. A unique, innovative, and clinically oriented approach to anatomy education. Acad Med 2007;82:475-8.
7. Matteucci P, Lagopoulos M, Southern S. Endoscopic anatomy of the ulnar nerve: A useful adjunct to teaching anatomy. Ann R Coll Surg Engl 2011;93:201-4.

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