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INTERACTIVE TEACHING IN ANATOMY LECTURES: PERSPECTIVE OF 1ST PROFESSIONAL MBBS STUDENTS.

Anatomy

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ABSTRACT

Background: Lectures are the most commonly used method for a large group teaching in medical education. In traditional lectures students are passive receivers of information. Introduction of interactive techniques break the monotony and increases the interest of the students.**Aims and Objectives**: This study was conducted to introduce some interactive teaching methods in Anatomy lectures and to analyse the perception of students towards these lectures.**Material and methods**: The present study was carried out on 100 students of 1st professional M.B.B.S. of Major S. D. Singh medical college and hospital, farrukhabad. A number of interactive techniques like pause-procedure, minute papers, think-pair-share technique and role play were introduced in anatomy lectures. The technique was followed for ten lectures and at the end of ten lectures, a questionnaire was given to the students for their feedback.**Results**: A total of 92 students (66 males and 26 females) participated in the feedback. The interactive lectures were liked and enjoyed by most of the students in comparison to the traditional lecture method. The overall presentation on the scale of (1-10) of the sessions was rated above 7 by 73.9% of students. Summarisation of lecture during pause-procedure was the most popular interactive technique.**Conclusion**: The interactive teaching was found to be more useful in comparison to traditional lectures. Introduction of various interactive techniques during lectures are recommended for active participation, more attention, and motivation of students.

KEYWORDS:

Interactive teaching, pause-procedure, think-pair-share, minute papers, role play, feedback

INTRODUCTION:

In medical education, lectures are the most commonly used method for a large group teaching. It is considered as the most cost-effective method for teaching in comparison to other methods like tutorial, demonstration etc. Lecture imparts a great deal of information to a large number of students in a shorter period of time. However it is very difficult for the students to maintain their attention after 15-20 minutes. Introduction of some interactive sessions in the lecture breaks the monotony and increases the interest of the students.

With the advancement of technology in recent time, efforts are taken to make the lectures more effective by using the available techniques. Research has shown that traditional lecture method, where the teacher speaks and students listen, dominate the scene in most of the medical colleges in India.[1] In traditional lectures students are passive receivers of information and they are not involved in process of learning after some time. It is clear from the recent research that students need to be taught by interactive lectures and therefore it is not surprising that traditional lectures are characterized by poor attendance rates.[2] In our institution, traditional lectures are the most common method of teaching. Introduction of interactive teaching can help to increase the interest of students in the lectures and maintain their attention.

Interactive lectures can be interpreted in a number of different ways. For some, interactive lecturing involves a two-way interaction between the presenter and the participants. For others, it refers to increased discussion among the participants. Interactive teaching involves interchange of ideas between teachers, students and the lecture content. It refers to increased discussion among the participants and their active involvement.[3] Interactive teaching requires students to do meaningful learning activities. Various methods that can be used in a large group for interactive teaching are: Question Asking and inviting questions, Think pair and share, brainstorming, case based examples, role playing, demonstrating, problem solving, directed listening, pre and post-testing etc.[1] This article describes various methods to promote interactivity during anatomy lectures to break the monotony and improve the learning process of students. The objective of teaching is to facilitate learning and encourage the students to learn more effectively. Interactive teaching encourages the students to participate in the discussion. Lectures are efficient ways of delivering information in which gesture, voice, body language, facial expression, and eye contact can complement the content of lecture. Through different kind of activities new concepts can be given to students. Irrespective of the topic, mode of delivery and manner of speaking influence student's attention and learning.

AIMS AND OBJECTIVES:

Interactive lecturing encourages active participation of students which is beneficial for effective learning. This method of teaching promotes the student's attention and allows for instant feedback on their level of understanding the topic. It also promotes a higher level of thinking, problem solving and application of material taught. Indeed, interactive lecturing is a way to capitalize on the strengths of small group learning in a large group format.[3] The specific objectives of this study are:

1. Introduction of interactive teaching methods in anatomy lectures.
2. Active participation of students during lectures.
3. Sensitization of other faculty members for interactive teaching.

MATERIALS AND METHODS:

The present study was carried out on 100 first professional M.B.B.S. Students at the department of Anatomy of Major S. D. Singh Medical College. Ten interactive lectures on gross anatomy of head and neck region were planned and different types of interactivities were introduced in the lecture design at the appropriate interval. A special session was conducted for students to explain the concept of interactive teaching. The various interactive techniques introduced during the lectures are:

Pause procedure:

During the course of one hour lecture two pauses was taken- one after first half of lecture and another one at the end of lecture. A summary of each half of the lecture was given during this pause and students are encouraged to ask questions and clear their doubts.

Think-pair-share: The students were allowed to discuss about the lecture with his/her neighbouring student for two minutes. After that students were chosen randomly and asked to share their ideas regarding the topic. During this time their doubts about the concepts were also cleared. This technique allows the students to discuss their ideas with their neighbour and also to correct each other.

Role play: A few Role plays were introduced to create interest among students and deeper understanding of certain important aspects. The role plays were designed on anatomical positions of different structures of head and neck region and movements of the various joints of head and neck.

Minute papers: At the end of the lecture, students were asked questions about the lecture and one minute time was given to them to answer. Sometimes they were asked about the most important thing they learnt in the class, their doubts about the lecture and what they would like to learn more.

The interactive technique was followed for 10 lectures. A questionnaire was prepared to get feedback from the students regarding their perception about the interactive teaching methods.

OBSERVATION AND RESULTS:

The feedback form was distributed to the students and appropriate time

was given to them to fill the form. 92 students participated in the feedback as 8 students were dropout as absentees. The total number of males were 66 (71.7%) and females 26 (28.3%). All the participants were in the age group of 17-21.

The feedbacks from the students using the questionnaire were summarized using statistical analysis. Summative data analysis was carried out of related questionnaire. The students were asked to rate these interactive teaching methods on a scale of 0-10. The feedback clearly explains the interest of students in interactive lectures. The interactive lectures were liked and enjoyed by most of the students in comparison to the traditional lecture method. The overall presentation on the scale of (1-10) of the sessions was rated above 7 by 73.9 % of students. 26.1% of the students rated these interactive lectures between 5 and 7. None of the students rated it below 5.

Summarization of lecture during pause-procedure was liked by almost all the students. One fourth of students liked all the methods of interactive teaching i.e. think-pair-share technique, minute papers, role play and pause-procedure. Most of the students were of the opinion that discussions during think-pair-share technique gave them an opportunity to talk and share their views with other students in the class itself.

The students felt that interactivity keeps them active and more attentive in the class, makes the atmosphere livelier and hence results in better understanding of the subject, more retention of the facts and also helps in clearing doubts. The students were satisfied and happy with this new method of learning and suggested that other lectures should also be conducted in a similar manner.

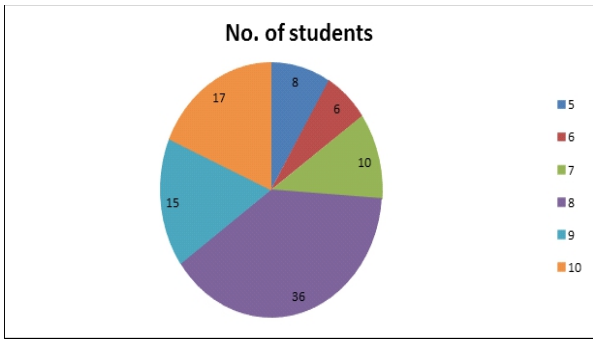

Figure 1: Ratings given by students

DISCUSSION:

Studies in medical education had demonstrated that engaged teaching increases student's attention, and make them receptive to, and involved with, the concepts.[4] Interactive teaching induces active learning in students thereby imparting its advantages such as a better understanding, more retention, better reproducibility and clarification of doubts. These lectures facilitates problem solving, decision making and communication skills of the students.[5,6] Interactive teaching is tried by many researchers and it has been found that this method of learning helps in better understanding and should be included into the curricula for teachers of various fields.[7]

Active participation of students and their involvement is a prerequisite for better learning. The students must be attentive and motivated in order for learning to occur. Introduction of various interactive methods in traditional lectures creates a stronger learning environment than passive instruction.

Feedback is an important part of teaching. Interactive teaching allows teachers to receive feedback on student's needs and perceptions, and on future teaching- learning directions.[8] Some researchers have also introduced the electronic voting equipment for lectures to obtain feedback and perceive the benefits of interactive engagement.[9,10] In present study, I have used different interactive techniques and collected feedback from the students in the form of a questionnaire to find out the effectiveness of these methods. The interactive methods used are pause procedure, think-pair-share, minute papers and role play. Summarization of the lecture during pause-procedure was the most liked interactive technique by the participating students. About 25% of students liked all the methods of interactive teaching.

Suggestions invited from the students in the questionnaire. The students were also asked to mention the drawbacks of these lectures. One of the students mentioned that interactive teaching is time consuming. Many students suggested that the time allotment for think-pair-share techniques should be increased. Few students suggested that some MCQ's should be asked during the lectures. Suggestions regarding home work, group discussion and weekly tests also came from the students.

The initial impact of the study has been reflected in the form of increased demand for interactive lectures in anatomy. The students also requested to add these learning strategies in lectures of other subjects. The other faculty members of our department as well as other departments also ensured use of some of these interactive techniques in their lectures.

The outcome of this study was favourable, but the study has its limitations too. One of the limiting factor, which was initially felt by me that these lectures are time consuming. It is very difficult to include all this interactive techniques in a lecture of one hour. Proper adjustment of lectures and scheduling these activities was slightly difficult. However, these problems are solved by meticulous planning of lectures. Proper co-operation from physiology and biochemistry department was needed and they responded in a very positive way.

CONCLUSION:

This study clearly proves that interactive teaching in Anatomy lectures is definitely preferred in comparison to traditional teaching by the students of 1st professional M.B.B.S. Summarization of the lecture was the most liked method of interactivity. The other methods are also liked by the students. Such interactive lectures help to create an interesting environment in the class. Confidence and communication skills of students can be improved by these lectures. We should plan various interactivities for the students before the lectures to break the monotony of traditional lectures.

REFERENCES:

1. Thaman R, Dhillon S, Saggar S, Gupta M, Kaur H. Promoting active learning in Respiratory Physiology- positive student perception and improved outcomes. Natl J Physiol Pharm Pharmacol 2013;3:27-34.
2. Maloney M, Lally B. The relationship between attendance at university lectures and examination performance. Irish J Educ 1998 29: 52-62.
3. Steinert Y, Snell LS. Interactive lecturing: Strategies for increasing participation in large group presentations. Medical Teacher 1999; 21(1):37-42
4. Pettit RK, McCoy L, Kinney M, Schwartz FN. Student perceptions of gamified audience response system interactions in large group lectures and via lecture capture technology. BMC Medical Education 2015;15:92.
5. Ernst H, Colthorpe K. The efficacy of interactive lecturing for students with diverse science backgrounds. Adv Physiol Educ 2007;31:41-4.
6. Buch AC, Chandanwale SS, Bamnikar SA. Interactive teaching: Understanding perspectives of II MBBS students in Pathology. Med J DY Patil Univ 2014;7:693-5.
7. Ridley RT. Interactive teaching: A concept analysis. J Nurs Educ 2007; 46:203-9.
8. Jason H and West berg J. Providing constructive Feedback. (Boulder, CO, ACIS Guidebook for Health Professionals) 1991.
9. Draper SW, Brown MI. Increasing interactivity in lectures using an electronic voting system. J Comput Assist Learn 2004; 20:81-94.
10. Maley MA, Harvey JR, Bastiaan de Boer W, Scott NW, Arena GE. Addressing current problems in teaching pathology to medical students: Blending learning. Med Teacher 2008; 30:e1-9