Original Article

Medical Lectures Evaluation

# An Evaluation of the Type of Lectures by MBBS Students

**1. Naima Javed 2. Farah Amir Ali 3. Muhammad Arshad 4. Habib Subhani**

1. Assoc. Prof. of Pharmacology, Aziz Fatima Medical & Dental College (AFM&DC), Faisalabad 2. Assoc. Prof. of Physiology, (AFM&DC), Faisalabad 3. Asstt. Prof. of Pediatrics, SMC, Sargodha 4. Prof. of Medicine, (AFM&DC), Faisalabad

## ABSTRACT

**Objective**: The current study was done to pilot different techniques of making lectures interactive and to find out compliance of the students with interactive lectures.

**Study Design:** Prospective / comparative study.

**Place and Duration of Study:** This study was carried out at the Department of Pharmacology, Aziz Fatima Medical & Dental College, Faisalabad from 01.04.2014 to 30.04.2014

**Materials & Methods**: An entire class of 3rd year MBBS students (n = 65) was given interactive and the regular lectures for the Drugs acting on The Central nervous system in Pharmacology. Out of the total number of 12 lectures, alternative lectures were delivered in an interactive style. At the end of 12 lectures, students' opinion was obtained using a structured feedback evaluation questionnaire, having 5 statements on a 5 point Likert scale.

**Results:** 92% of the students found that interactive lectures are more effective. Notably more number of students agreed or strongly agreed that interactive lectures amplified alertness, developed interest, by-passed monotony, and urged them to learn by themselves as compared to usual lectures. The students preferred use of video-clips (65%), followed by each-one-teach-one. The use of interactive lectures to create interest among students is supported by the results of the study.

**Conclusion:** An interactive lecture was more easily listened and considered to be more useful than the regular lecture by the students

**Key Words:** Evaluation, Lecturer, MBBS students

**Citation of article: Javed N, Ali FA, Arshad M, Subhani H. An Evaluation of the Type of Lectures by MBBS Students. Med Forum 2015;26(4):5-8.**

## INTRODUCTION

Didactic lectures (Traditional lectures) are the widespread mode of teaching for large groups in most professional institutes in Pakistan. They are obviously associated with a few advantages however they are not the ideal teaching method[1]. Didactic lectures are generally of one hour duration and studies have shown that student's attention wanes quickly after twenty minutes. Thus, interactive lectures have been considered as a means for overcoming the disadvantages associated with regular lectures[2].

Students criticize lectures because they may be non-interesting or even useless when they are not delivered properly. It has been tested that only a small content of what the lecturer is teaching is absorbed by the students[3,4]. Critics believe that lectures are less useful when goals like, use of acquaintance, improvement of thinking skills or alteration of attitudes is to be targeted[5]. These lectures can be prepared meaningful by effective planning and organized efforts[6,7]. When they are focused and targeted, they can help in efficient transmission of information and can evolve new concepts. Thinking of students can be problem solving and it can be a motivation for them to learn and seek knowledge[8,9].

Learning is a dynamic process and so interactive lectures are regarded as an educational paramount exercise. Participants at the International Union of Physiological Sciences Teaching Workshop in April 7-10, 2005 in Pali Mountain, CA, were convinced that there should be active participation of the students in the lectures to make them understand better[10,11].

Interactive learning can be explained in many ways. Some think it as a bilateral communication between the lecturer and audience and some suppose that it is meant by increased argument amongst the members. It also means involvement of students with the contents of lecture which could result in the production of better learners[12].

Interactive lecturing involves a different role of the teacher as well. The 'teacher' frequently becomes a 'facilitator' or 'coach', and has to change the lecture material at all and sometimes has to try new innovative methods to make his/her lecture interesting[13].

Educational research has revealed that students who are actively involved in the learning activity will learn more than students who are passive recipients of

**Correspondence: Dr. Naima Javed,**
1. Assoc. Prof. of Pharmacology, Aziz Fatima Medical & Dental College, Faisalabad
**Cell No.: 0321-6614121**
**Email:** drnaima@live.com

knowledge. This type of teaching involves more commitment of students with the books, their teachers and classmates. Indeed, even students who do not participate in the class are provoked by the questions or problem-solving exercises[14,15].

Some other studies have established that improved concentration and communication boost recall[16]. Some authors believe that improved alertness and encouragement are the key elements for learning, and frequently are more important to retain than aptitude. It has been shown that student's awareness and thought in the traditional lecture decreases significantly after 20 minutes[17]. Energy shifts or changes of pace are necessary if student's interest is required to be focused[18].

Interactive learning can improve problem-solving and communication skills of the students which is an essential part of medical education[19].

Interactive lecturing supports dynamic contribution on the part of the teacher and the student. This method of teaching arouses student's attention and allows for instant response about the lecture. It also promotes a higher level of assessment, problem solving and purpose of material taught. Indeed, interactive lecturing is an approach to utilize the potency of small group learning in a large group setup[20,21].

# MATERIALS AND METHODS

This study was done on 3rd year undergraduate medical students (n = 65).

The entire class was delivered both interactive lectures and regular lectures for the central nervous system drugs in Pharmacology. Among the total number of 12 lectures in the central nervous system, alternate lectures were conducted in an interactive style. The number of interactive lectures and regular lectures were six each. Each lecture lasted for one hour.

There were three lectures per week as per teaching schedule (Mondays: 1-2 pm, Wednesdays: 1-2 pm and Fridays: 8-9 am) with regular lectures and interactive lectures being conducted alternately. The entire central nervous system was completed in four weeks. The lectures of the entire central nervous system unit were taken by three faculty members.

The various techniques which have been used for making lectures interactive were:

A) "Each-one – Teach-one" at regular intervals during the lecture, the faculty stops for one or two minutes and asks each one of the students to educate their fellows one vital feature which was previously discussed in their lecture.
B) Posing relevant cases/scenarios at the start of the lecture.
C) Playing appropriate video clippings during the lecture.
D) Questioning by the lecturer (multiple choice questions, filling up the blanks, and marking as true or false) at regular intervals during the lecture.

At the end of 12 lecture series, students' feedbacks were obtained by using a structured five point Likert scale questionnaire, to find out that lectures conducted during the sequence were able to make students attentive, have created interest, overcame monotony, motivated self-learning and provided well-defined learning. The questionnaire was validated and tested for reliability. The students have been asked to grade their preferences for various techniques used in an interactive lectures.

Written informed consents for the participation and feedbacks have been taken from all the participants of the study. The project has been approved by the institutional ethics committee.

**Statistical Analysis:** The frequencies were described in percentages.

# RESULTS

Out of the total 65 students, feedbacks have been given by 60 students. The remaining five of them have not given any feedback.

Interactive lectures appeared to be more useful than regular lectures as it was observed by 92% of the students (Figure 2).

**Table No.1: Students' perception of interactive lectures**

| Variables | Number of the students who strongly Agree | Number of the students who Agree | Number of the students who are Neutral | Number of the students who Disagree | Number of the students who strongly Disagree |
|---|---|---|---|---|---|
| Keeps attentive | 35 (58.3) | 20 (33.3) | 5 (8.3) | 0 | 0 |
| Creates interest | 30 (50) | 22 (37) | 8 (13.3) | 0 | 0 |
| Monotony overcome | 18 (30) | 27 (45) | 13 (21.6) | 2 (3.3) | 0 |
| Provides well defined learning | 21 (35) | 30 (50) | 5 (8.3) | 2 (3.3) | 2 (3.3) |
| Motivates self-learning | 16 (27) | 24 (40) | 18 (33.3) | 1 (1.7) | 1 (1.7) |

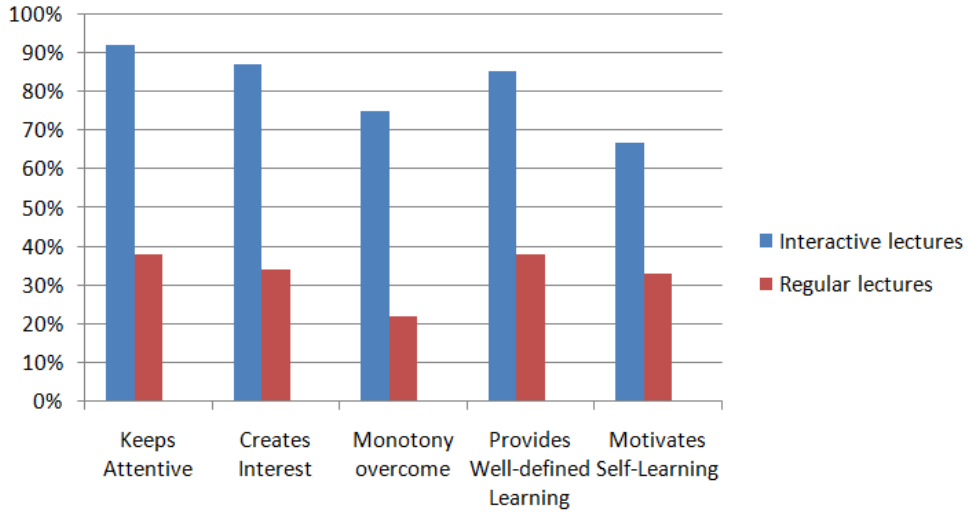


**Figure No.1: Comparison of the students' opinion on methodology of lectures**

**Table No.2: Techniques liked by the students**

| Technique | Students who like the technique | |
|---|---|---|
| | In Numbers | In Percentage |
| Video clippings | 39 | 65% |
| Each-one –teach-one | 30 | 50% |
| Questioning | 27 | 45% |
| Cases/Scenarios | 21 | 35% |

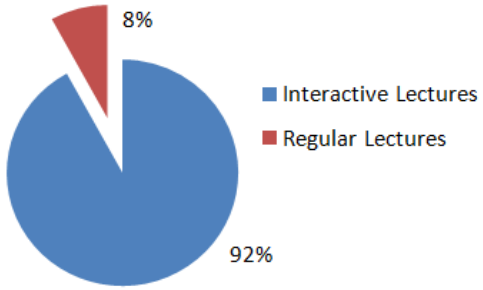


**Figure No.2: Students' preference on methodology of lectures**

Almost 92% of the students agreed upon or strongly agreed that interactive lectures kept them attentive, whereas only 38% of students agreed or strongly agreed that regular lectures kept them attentive. Likewise, significantly more number of students agreed or strongly agreed that interactive lectures created interest, overcame monotony, motivated self-learning and provided well defined learning as compared to regular lectures. Furthermore, a comparison of the students' opinion on these lectures has been made and it is shown in Figure 1.

The students supported interactive lectures more than the regular lectures for all five variables. This has been shown in Table 1. Among the different techniques used for interactive lectures, 65% of the students preferred the use of video clippings and 50% of them liked teaching by "each-one-teach-one" (Table 2).

# DISCUSSION

Lectures are the traditional way of teaching large groups. The traditional format encourages students to focus on the superficial knowledge instead of studying thoroughly. Active learning is the learning in which students are thinking about the subject matter. Lecture method of teaching has been much criticized very much in a way that it is only meant for transfer of contents of the lecture to the student's note books not engaging their brains. There is a famous saying by Albert Camus: "Some people talk in their sleep, Lecturers talk while other people sleep".

The most important disadvantage associated with didactic lectures is that they are boring and less useful than other methods while instructional objectives include relevance of information or facts, thinking proficiency, or the alteration of mind-sets. In addition, students are often observed as inert beneficiaries of information.

Interactive lectures are a sort of dialogue in which the teacher requires students to do something beyond passive reception. Interaction can address most of the pitfalls associated with regular lectures. It can improve student participation and satisfaction levels of students and faculty. In many ways, interactive lectures keep the teachers interested and awake as well.

There can be various interactive techniques in medical education; the basic point is to improve student participation, interest and motivation in the lecture course. These ways include splitting the class into smaller groups, inquiring the listeners, application of clinical cases, use of written information, using simulations, role plays, films and videotapes, audiovisual aids and effective presentation skills.

Student-teacher interaction can be monitored using techniques like videotaping and peer review. These methods can be used as feedback by the faculty to improve their teaching and interactive skills.

Most teachers know the advantages of interactive lectures but they do not want to engage in such lectures due to many reasons. These include fear about not knowing the answers to questions raised by the students, not getting the answer by the students when any question is asked and an anxiety that a group of students may dominate during the session. Time management is another issue and some think that syllabus may not be completed. Others believe that this way of teaching is not suitable for undergraduates.

Interactive lecturing appears to increase the awareness, change the attitudes and so it can lead to a change in learning outcomes. Students' feedback indicates that there is increased involvement, motivation and engagement in Pharmacology.

In conclusion, it is obvious that students gain from interactive lecturing, even if it is for a short module but it can be of significant help to the students. This supports the claim that interactive learning should be initiated. Moreover, the students with limited prior knowledge are also able to achieve similar learning outcomes to those students having good prior knowledge. It enhances their learning ability and understanding. However, further work is needed to confirm that acceptance of this method leads to better learning by the students, and it can be done by establishment of a positive correlation between interactive classes and right answers at the end of the class student assessments.

# CONCLUSION

With subcostal approach, incision time, dose of analgesia and pleural injury is minimum but high incidence of incisional hernia is there. In transcostal and supracostal approach the incision time, dose of analgesia and incisional hernia is minimum but incidence of pleural injury is relatively high.

**Conflict of Interest:** This study has no conflict of interest to declare by any author.

# REFERENCES


1. George brown, Michael Manogue. AMEE Medical Education Guide No.22: Refreshing lecturing: a Guide for lecturer. Medical Teacher 2001;23(3): 231-44.
2. Attention span in education (Attention Span) {Internet}. Available from:http://psychology.wikia. com/wiki/Attention-span
3. Blight D. What's the use of lectures? Middlesex, UK: Penguin, 1972.
4. Kimmel P. Abandoning the lecture: curriculum reform in the introduction to clinical medicine. The Pharos 55:36-38, 1992.
5. Newble D and Cannon R. A handbook for medical teachers. Boston, MA: Klower Academic, 1994.
6. Gelula MH. Effective lecture presentation skills. Surg Neurol 1997;47:201-204.
7. Nasmith L, Steinert Y. The evaluation of a workshop to promote interactive lecturing. Teach Learn Med 13:43-48, 2001.
8. Foley R, Smilansky J, Bughman E, Sajid A. A departmental approach for improving lecture skills of medical teachers. Med Edu 1976;10:369-373.
9. Frederick P. The Lively Lecture-8 variations. College Teaching 1986;34:43-50.
10. Hansen PA, Sefton AJ. International union of physiological science teaching workshop, April 7-10, 2005, Pali Mountain, California. Adv Physiol Educ 2005;29:216-226.
11. Maloney M, Lally B. The relationship between attendance at university lectures and examination performance. Irish J Educ 1998;29:52-62.
12. What is interactive lecture? {Internet} Last modified September 22, 2011. Available from: http;//serc.carleton.edu/introgeo/interactive/whatis. html
13. Butler JA. Use of teaching methods within the lecture format. Med Teacher 1992;14:11-25.
14. Yvonne Steinert and Linda S. Snell. Interactive lecturing: Strategies for increasing participation in large group presentations. Medical Teacher 1999; 22(1).
15. Murray HG. Effective teaching behaviors in the college classroom, in: J. Smart Higher education: Handbook of theory and research, 1991;7:135-172.
16. Gage N, Berliner D. Educational Psychology Dallas, TX: Houghton-Mifflin, 1991.
17. Stuart J, Rutherford RJD. Medical student concentration during lectures. The Lancet 1978; 8088:514-516.
18. Michaelsen LK, Watson W, Cragin JP, Fink LD. Team learning: a potential solution to the problems of large classes, Exchange. The Organizational Behavior Teaching J 1982;7:13-21.
19. Lowman J. Mastering the Techniques of Teaching, 1984.
20. Ramsden P. Learning to Teach in Higher Education, 1992.
21. Byrne PS, Harris CM, Long BEL. Teaching the teachers. Med Educ 1976;10:192.