

Original Research Article

Perception of Different Teaching Methods by the Final Year MBBS Students in a Medical College

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ABSTRACT

Introduction: The lecture is an important mode of imparting knowledge for a large group which gives an overview of the subject to the students. Medical students during their MBBS course, find it difficult and volatile. To enhance successful communication, medical teachers are increasingly using different visual aids & teaching methods.

Objectives: Evaluation of teaching learning methodology in a medical college may further help in modification and construction of the medical curriculum. In this regard, we studied the feedback from students about the effectiveness of prevailing teaching methods, so that best teaching method can be adopted to improve their academic performance.

Methods: The 10 questionnaire covering the different aspects of lectures was given to 100 medical students of final year students in the year 2014 of Sapthagiri Institute of Medical Sciences & Research Centre, Bangalore. Informed consent was taken by the participants and confidentiality was maintained. The questionnaire were assimilated and analyzed statistically to derive the results.

Conclusion: In the present study students preferred combination of teaching and majority preferred teaching with live surgeries/videos along with teaching followed by self-study/group study is most satisfied teaching method because the student is actively involved and more learning takes place. Judicious use of different methods increases the understanding, remembrance and reproducibility and thus increasing academic performance of the student.

Key words: Teaching methods, seminars, group discussions, medical education, Lectures.

INTRODUCTION

Teaching is an art. By making use of best teaching method & aid, teacher can teach and make the students understand, remember and reproduce well, thus improving the academic performance of students. Use of teaching aids in medical education technology is swiftly changing from blackboard to virtual simulations and teaching methods range from lectures to integrated teaching. [1] There has been a

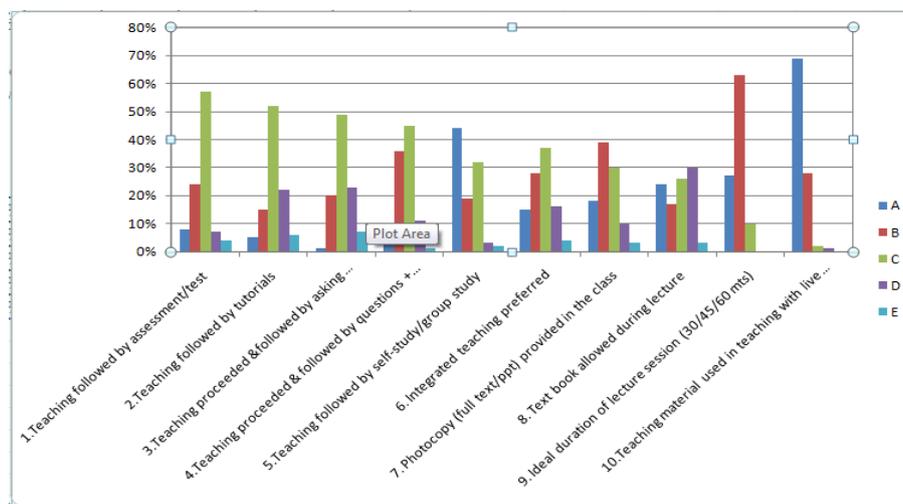
growing interest over the past decade for a paradigm shift from teacher-centered mode of delivery to student-centered mode of delivery. [2] A teaching method comprises of the principles and methods used for instruction. The choice of teaching methods to be used depends largely on the information or skill that is being taught, and it may also be influenced by the aptitude and enthusiasm of the students. Medical under graduates receive

different methods of teaching from their faculty members. The teaching methods mainly used for lectures are didactic lectures, role playing, case studies, demonstrations through videotapes, problem based learning. [3] Each method has its own advantages or disadvantages. With the changing trends, majority of the faculty members are getting acquainted with the latest teaching methods like web based learning, problem based learning, etc. Most of the faculty members have an up to date knowledge of their subject of specialization. However, understanding the differences in learning style preferences of the learner is very important but an underutilized approach to improve understanding of the learners. [4] The faculty while organizing or planning for a lecture should consider the intellectual level of the students, what the student actually needs to know, how much to interact and the mode of interaction, the relevance of the topic to the student. If this

is taken care of, the faculty would make a lecture more concise, relevant and an interesting one. [5]

MATERIALS & METHODS

A questionnaire was prepared having 10 items covering the different aspects of teaching methods the form of opinion by the medical students. The questionnaire was a closed ended one with a few open ended options. The same was validated. The ethical principles were adhered to. The questionnaire was given to 100 medical students of final year students in the year 2014. Irrespective of the teacher and topic, the students were asked to grade teaching methods that were used to teach, irrespective of method of teaching style. Informed consent was taken by the participants and confidentiality was maintained. The questionnaire was assimilated and later analyzed to derive the results.



Bar chart: showing percentage of opinions regarding various teaching methods.

The students were asked to grade the following teaching methods

Grades being: A- Most helpful, B- more helpful, C-helpful, D- not helpful, E- not at all effective.

Questions were: Teaching followed by assessment/test, Teaching followed by tutorials, Teaching preceded & followed by asking questions, Teaching preceded &

followed by questions + assessment + small group teaching, Teaching followed by self-study/group study, Integrated teaching preferred, Photocopy (full text/ppt) provided in the class, text book allowed during lecture. Ideal duration of lecture session (30/45/60 mts), Teaching material used in teaching with live surgeries/videos.

Students were given option to suggest any other teaching method which would improve their academic performance. After obtaining informed consent, the students were encouraged to furnish their unbiased independent opinion regarding the above study.

Statistical analysis: The response obtained from the students was statistically treated to calculate the high Satisfaction Index (SI) for teaching methods. Observational study was done & percentage was calculated.

RESULTS

Learning Methods:

A- MOST HELPFUL: 69% of students opined teaching with live surgeries/videos followed by teaching followed by self-study/group study in 44% & text book allowed during lecture in 24% of students.

B- MORE HELPFUL: 39% students opined photocopy (full text/ppt) provided in the class followed by teaching preceded & followed by questions + assessment +small group teaching in 36% of students. 28% and 24% of students opined integrated teaching and teaching followed by assessment/test respectively. 28% of students also opined teaching with live surgeries/videos as more helpful. 19% of students opined teaching followed by self-study/group study while 17% are for

text book allowed during lecture. 15% of students were for teaching followed by tutorials.

C- HELPFUL: The majority of students found to helpful in almost all categories of teaching methods. The percentage ranged from 57% on the higher side to 26% on the lower side. Only 2% of students opined live surgeries/videos are essential.

D-NOT HELPFUL CATEGORY: The highest percentage was 30% in text book allowed during lecture, followed by 23% & 22% in teaching preceded & followed by asking questions and teaching followed by tutorials respectively.

E-NOT AT ALL EFFECTIVE: This was seen in less percentage of students, and the highest percentage observed was in 7% of students.

On interviewing the medical students, some valuable practical comments recorded are as follows:

- Several students commented that the effectiveness of the lecture depends upon the teacher, regardless of the method of delivery. The most effective lectures were the ones where the students were able to understand and given sufficient time to take down the notes, flow charts and the diagrams. It is not useful, when the presentation contained too much material and the lectures were delivered too fast.

Table no1: Showing questionnaires & percentage of opinions regarding various teaching methods given by students

Questionnaires	A% (Most helpful)	B% (More helpful)	C% (Helpful)	D% (Not helpful)	E% (Not at all effective)
1.Teaching followed by assessment/test	8%	24%	57%	7%	4%
2.Teaching followed by tutorials	5%	15%	52%	22%	6%
3.Teaching preceded & followed by asking questions	1%	20%	49%	23%	7%
4.Teaching preceded & followed by questions + assessment +small group teaching	7%	36%	45%	11%	1%
5.Teaching followed by self-study/group study	44%	19%	32%	3%	2%
6. Integrated teaching preferred	15%	28%	37%	16%	4%
7. Photocopy (full text/ppt) provided in the class	18%	39%	30%	10%	3%
8. Text book allowed during lecture	24%	17%	26%	30%	3%
9. Ideal duration of lecture session (30/45/60 mts)	27 (30 mts)	63%(45mts)	10%(60mts)		
10.Teaching material used in teaching with live surgeries/videos	69%	28%	2%	1%	0%

DISCUSSIONS

Now with short duration of course & vast subjects of MBBS, the duration should be effectively used to get best

outcome from the students. The results from the cognitive sciences provide insights into the neurological basis of memory formation and learning. Learning

involves three steps: acquisition of information (physical encoding in the brain), its retention and the ability to retrieve the information when needed.^[6]

The study conducted by Baxi et al^[7] the students preferred teaching preceded and followed by asking questions + assessment + small group discussion (66.6%) was considered as the most helpful teaching method to understand, remember and reproduce (A grade) when compared to teaching followed by tutorials (47%), teaching followed by assessment/test (45%), teaching followed by self study / group study (13%) and teaching preceded and followed by asking questions (0.7%).^[7]

In our study, Suggestions/opinions given by the students on different teaching methods was 69% of students' opined teaching with live surgeries/videos followed by teaching followed by self-study/group study in 44% was considered most helpful. 39% students opined photocopy (full text/ppt) provided in the class followed by teaching preceded & followed by questions + assessment +small group teaching in 36% of students as more helpful. About 57% opined teaching followed by assessment/test and 52% opined teaching followed by tutorials as only helpful.

72.6% of the students from all phases of MBBS have opined that the ideal duration of a lecture to be 45 minutes. As per study of Roopa Kulkarni et al.^[5] John S et al^[8] study analysis of 1353 questionnaires from 12 lectures demonstrated that student concentration increases in 15 minutes and steadies for another 15 minutes. Thus the ideal duration of a lecture hour is recommended to be 30 minutes.^[8]

Our study goes with Roopa Kulkarni et al^[5] study where Majority of 63% commented that ideal duration of lecture session to be 45 mts.

In response to the survey done by Roopa Kulkarni et al^[5] questions to

students of all phases (84.1%) unanimously recommended for the need of handouts.^[5] The knowledge of the medical profession is so vast that no single textbook satisfies the needs of the student. In this regard, the handout is a non-comprehensive outline of the lecture class which assists the student to follow the lecture and note down the important points. Handouts can help the student as a guide, further directed learning, to summarize and understand the topic effectively.^[9, 10] Chaudhary R et al (2009)^[11] in his study had undertaken on 100 medical students of 1st Year MBBS of 2006 batch, favoured seminars along with different teaching aids (82%) & suggested photocopy material to be provided 64.2% (52).^[11]

In our study, 39% of students suggested Photocopy (full text/ppt) provided in the class will be most helpful.

In Roopa Kulkarni et al^[5] study, the issue was addressed to the students on the need to bring text books to the class. 57.8% and 42.2% of students have agreed and disagreed respectively. This opinion is a mixed one. The students, who wanted to bring in the textbooks to the class help them to familiarize with the content of the textbook, add extra information given by the faculty and highlight the important points. Helps to comprehend and concentrate by diagrams and thus enhancing picture memory. The other set of students who have disagreed to bringing textbooks in class perceive that textbooks may distract them in the class.^[5]

In our study majority of students agreed that text book allowed during lecture was only helpful in 26%, however 30% of students opined as not helpful & 3% not at all effective.

When asked to the students about questioning in the class, 69.3% of the students have appreciated this as a good method of interaction, but around 30.7% in each of the phases have said 'no' to questioning. The reasons given for this

were that the students would get embarrassed and insulted if they do not answer the question. A practical way to circumvent this problem would be to ask open ended and generalized questions to the student. The purpose of questioning in the class should be to draw the attention and motivate students' better understanding of the concept but also helps in developing communication skills. [5]

Kathleen C. [12] survey suggested asking of questions(66.6%) of previous lecture would make the students to be attentive, read and come for ongoing lecture and it acts as bridge for the next concepts. also it breaks the monotony; an inherent component of didactic lectures. A discussion will allow students to clear their queries. [12]

The intention of asking the opinion of students regarding weekly assessment was to know whether they are for it or not. 80.4% of the students have agreed to regular assessment. Regular assessments benefit the students to learn on time, revise and get familiarized with the examination pattern. The students have preferred monthly tests than the weekly ones. These regular tests are more essential in certain subjects which are volatile. By assessment the student comes to know his capacity of performance and with a proper feedback the student will be able to modify accordingly. [5] The unit tests are helpful as they allow students to study the limited portion of syllabus thoroughly and also to learn writing techniques and time management skills. [7]

In our study, majority of students suggested teaching followed by tutorials (52%) as only helpful, & teaching preceded & followed by questions + assessment + small group discussions(45%) as only helpful.

Integrated teaching is a system based approach to medicine where in the student learns all the subjects in relation to a particular system at the same time. The

students are able to learn in a holistic manner by linking the basic sciences and 18 clinical sciences. [5] 64.6% of the students have expressed the need for the integrated teaching. This shows that the students have accepted the methodology as this makes the students to link basic with clinical sciences and looks at the disease in a holistic manner. [13]

In our study majority of students suggested Integrated teaching (37%) preferred as only helpful.

Grasha [14] argued that an environment in which delivery of the material is matched to the learner's preferred style would eventually bore the student, causing the learner to disengage. A deliberate mismatch could prevent disinterest and stretch an individual to grow and learn. This was supported by research that showed that even individuals with strong learning style preferences preferred a variety of teaching approach to avoid boredom.

In our study, Opinions given by the students on different teaching methods are: **A-MOST HELPFUL** was -69% of students opined teaching with live surgeries/videos followed by teaching followed by self-study/group study in 44%.

B- MORE HELPFUL: 39% students opined photocopy (full text/ppt) provided in the class followed by teaching preceded & followed by questions + assessment +small group teaching in 36% of students. 28% and 24% of students opined integrated teaching and teaching followed by assessment/test respectively. 28% of students also opined teaching with live surgeries/videos as more helpful. 19% of students opined teaching followed by self-study/group study while 17% are for text book allowed during lecture. 15% of students were for teaching followed by tutorials.

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Majority of 63% commented that, ideal duration of lecture session as 45 mts.

CONCLUSION

Student perception forms an essential component for process of evaluation of the medical curriculum which has a profound effect on the stakeholders i.e. the teachers in terms of scope for improvisation in medical education and students for becoming effective physicians. Teaching material used in teaching with live surgeries/videos along with teaching followed by self-study/group study is most satisfied teaching method because the student is actively involved and more learning takes place. Judicious use of different methods increases the understanding, remembrance and reproducibility and academic performance.

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