

EFFECTIVENESS OF DIDACTIC LECTURE IN IMPARTING KNOWLEDGE IN MEDICAL EDUCATION

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Received: 09/05/2017

Revised: 01/09/2017

Accepted: 12/09/2017

ABSTRACT

Objectives: To find out the opinion of students on the effectiveness of lectures and to assess the knowledge of students after didactic lecture. Background: Lectures are the time tested and the oldest teaching method in a teacher's repertoire. There is a general view that lectures are not effective teaching learning method. My study was an endeavor to find answers to this. **Methodology:** This was a quasi-experimental study of 6 months duration conducted at Sree Gokulam Medical College and research Foundation after obtaining consent from the institutional review board. The ninth semester students of 2011 batch were included in the study after obtaining consent. A pretest was conducted and a lecture of 40 minutes duration was taken followed by post- test. Both the marks were tabulated. This was repeated with seven topics and seven faculty members. A questionnaire was circulated among the students and the findings also tabulated. These were subjected to qualitative and quantitative analysis. **Results:** 98% of students agreed that there was definite improvement of knowledge after the lectures. There were gaps to be filled after lectures. The faculty involved also influenced the student satisfaction even though there was no difference in the knowledge gained. **Conclusion:** Lectures are effective method of teaching to impart knowledge and there is definite increase in knowledge after didactic lecture. But the effectiveness of lectures depends on the teacher. There are definitely gaps to be filled after a lecture

Key words: Didactic lectures, learning tool, Knowledge teaching tool

INTRODUCTION:

Lectures are the time tested and the oldest teaching method in a teacher's repertoire. There is a general view that lectures are not effective teaching learning method. But then, why is the major chunk of the curriculum attributed to lectures? Why do we still continue to rely on lectures? There are lots of technology based e-learning methods. Why are they not replacing the lectures in our curriculum? Why does the

effectiveness of lecture merit our attention? My study was an endeavor to find answers to these Lectures are the most economical of T/L methods as they can cover varied topics and can address large student population. The teacher can incorporate difficult topics, different perspectives on the same topic, research updates and practical experiences to convey the message. Lectures can be used to invoke interest, provoke thought and deepen understanding .It can also act as a guide

to further in depth learning. In short the lecture can bring a subject alive and make it more meaningful and interesting.

Objectives

1. To find out the opinion of students on the effectiveness of lectures
2. To assess the knowledge of students after didactic lecture

MATERIALS AND METHOD

This is a Quasi experimental study done over a 6 months period from 2015 November
Sree Gokulam Medical College and Research Foundation

The study included 2011 MBBS batch students attending 9th semester posting (60 Students)

Operational Definition

Lecture: teaching by giving a discourse on some subject to a class.

The project approval obtained from institutional review board

Study plan

The Whole batch (n) of students were taken as subjects after getting consent from the students to participate in the study

Pretest given to the whole batch(n)

Lecture of 40 minute duration was given to the whole batch. (n)

Post- test given for the whole batch after the lecture

The evaluation of the paper was done by another faculty to avoid bias and marks tabulated

Seven such exposures were done on various pre decided topics by different faculty members The marks obtained was entered in MS Excel

A questionnaire was circulated among students to assess the effectiveness of lectures and the responses were obtained in likerts scale

Statistical analysis was done by software SPSS
Statistical tests applied, paired t tests with in the group and chi square test for comparing the questionnaire

The results were subjected to peer review

Thus our aim was to find the opinion of students on the effectiveness of lecture and to assess the knowledge of students after didactic lecture

Key words: Didactic lectures, teaching tool, learning tool, knowledge

RESULTS

The data collected was subjected to quantitative and qualitative analysis

	N	Module -1		Module -2		Module -3	
		Mean	SD	mean	SD	mean	SD
Pre-test	30	6.23	1.382	6.23	1.040	5.27	.980
Post test	30	9.10	.803	9.37	.556	8.13	.776
 t 		13.814		17.216		14.198	
df		29		29		29	
P		<0.001		<0.001		<0.001	

Table 1 comparison of pre and post- test marks obtained for the study group in three modules

	Module 4		Module -5		Module -6		Module -7	
	Mean	SD	mean	SD	Mean	SD	Mean	SD
Pre-test	5.67	.959	5.93	.868	6.10	1.062	6.07	.980
Post test	9.00	.743	8.80	.761	9.17	1.08	8.63	.425
t	13.548		14.198		14.669		5.283	
Df	29		29		29		29	
P	<0.001		<0.001		<0.001		<0.001	

Table 2 comparison of pre and post- test marks obtained for the study group in three modules

Table 1 and 2 gives the Mean and standard deviation of marks obtained by students in the test group before and after lectures in all the 7 different topics that was taught. Paired t test was used for statistical analysis. The absolute T value

was obtained and p value calculated. It is found that the P values is <.001 in all the 7 modules. Thus intervention was found to be significant in all the 7 modules.

A questionnaire was circulated among students to assess the effectiveness of lectures and the responses were obtained in likerts scale

Questions	SD (1)	D (2)	D+A (0)	A (3)	SA (4)
Lecture classes are effective to impart knowledge	0	0	0	67.2	32.8
There are lot of gap areas to be filled after a lecture	1.7	15.5	17.2	51.7	13.8
The effectiveness of lecture classes are teacher dependant	0	0	1.7	31	67.3

Note: SD-Strongly dis-agree disagree, A/D agree or disagree A Agree SA Strongly agree

Table 3 - % response of questionnaire

All the participants in the study agree that the lecture classes are effective tool to impart knowledge. But 65.5%of the participants feel that there are gap areas to be filled after a lecture class 98.3% of the participants also feel that the effectiveness of the lecture depends on the lecturer.

Discussion

The study at SGMCRF compared the effect of traditional lecture method with the knowledge acquired and the student satisfaction was considered There was a significant difference in the mean marks before the intervention and after the intervention as obtained by the pre-test and post-test marks in the study groups in all the

seven modules that were included in the study. This goes on to show that unlike the popular notion there is improvement in cognitive skills with this age old method of imparting knowledge

The effectiveness of lectures is dependent upon topic, the lecturer, the learner involved, the aids used and the time of the session.

In the wrong hands lecture can be boring. They may not fulfill the functions of developing, understanding and motivating students to learn. If the lecture is a monotonous reading of the matter from a text book, then the students will find it easier to learn from the book directly rather than listening to it (1)

Various studies done also show the ineffectiveness of lecture as T/L method (2). The student feedback analysis also shows that lecture is not an effective teaching learning method as opined by 71% of participants in a study (3). This is contrary to the results of my study where there was significant gain of knowledge as evidenced by the better performance in the post test.

So ultimately the outcome of lectures depends upon the lecturer, the listener, the content and the context. But in spite of all these factors lectures are here to stay

One focus for educational research over the past few decades has been student preference for particular learning styles, and the effect that testing for and accommodating these has on outcome measures. Tension exists between accommodating for individual learning preferences and mass delivery of (4): "Lectures are probably the best teaching method in many circumstances and for many students; especially for communicating conceptual knowledge, and where there is a significant knowledge gap between lecturer and audience (4).

Despite the lecture method being so unpopular among professional educational advisers, reformers and intellectuals generally - and almost annual declarations that information technology will render lectures obsolete - many scientists continue to give lectures and students continue voluntarily to attend them. This fact that lectures have survived so much official opprobrium suggests that they are a much more effective

teaching method than they are given credit for. (4)

Reviews of the research on lecturing over the past 70 years have concluded that lectures are at least as effective as other methods of teaching at presenting information and providing explanations

Some common organizing principles used by lecturers are time sequence (cases or stories), cause to effect, problem to solutions, pro versus con to resolution, familiar to unfamiliar, concept to application, building blocks, helixes or networks. Five different methods of structuring lectures have been identified through observation and reports by lecturers (1) (Brown & Bakhtar, 1987; Bligh, 2000). These, briefly, are:

(1) The Classical—in which a lecture is divided into broad areas and then subdivided. This is the easiest method of structuring a lecture and, potentially, the most boring. An extension of this method is the iterative classical in which a set procedure is applied to each topic. For example signs, symptoms, diagnoses, management and prognosis may be applied to a set of related diseases.

(2) The Problem Centred—in which a problem is outlined and various solutions are offered. Handled well, this method can play on the curiosity or clinical interests of the students.

(3) The Sequential—in which a problem or question is presented and followed by a chain of reasoning which leads to a solution or conclusion. It is easy to lose the students' attention when using this method so the use of periodic summaries is recommended.

(4) The Comparative—in which two or more perspectives, methods or models are compared. It is better done visually rather than orally. A common weakness is to assume that the audience knows intimately the perspective or methods under review. If in doubt, first outline each of the perspectives.

(5) The Thesis—in which an assertion is made and then proved or disproved through a mixture of argument and perhaps speculation. Potentially an interesting approach for students but, like the sequential approach, it can sometimes be difficult to follow

Twenty years ago, lecturers and students appeared to like lectures (Beard & Hartley, 1984). However, the overload of teaching and assessment in the past few decades may have produced changes in attitudes towards lecturing. Over 90% of the lecturers sampled (n = 268) in the survey by Brown & Bakhtar (1987) stated that they liked lecturing, they considered lecturing to be a useful and economical method of teaching and they approved of training in lecturing techniques. What students disliked was not lectures, but poor quality lecturing. Students' dislikes were: inaudibility; incoherence; talking too fast; poor use of audiovisual aids; too much information.(5)

From the questionnaire circulated among students all the participants unanimously agree that lecture classes are effective tool to impart knowledge. There are gaps to be filled after the lecture as suggested by 65.5% of participants.98.3% feel that effectiveness of the lecture depends on the lecturer This goes on to emphasize the fact that in good hands lectures can be captivating and effective. This is an art to be developed by all teachers using the guidelines mentioned above.

There are various newer teaching modalities that can be used along with lectures to improve the learning process but the importance of lectures cannot be written off from the curriculum and this mode of teaching is here to stay

Conclusion

Lectures are effective method of teaching to impart knowledge. with definite increase in knowledge .There are definitely gaps to be filled after a lecture and the effectiveness of lectures depends on the teacher .

Acknowledgement

We thank all the faculty and the students who whole heartedly participated in the study

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