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RESEARCH PAPER

Comparison of the traditional lecture system with the modern presentation: as a preferred teaching technique for medical students

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Background and aims: *The newer skills added today altering the methods of educating the health teaching. It has changed in the last few years from the old old-style technique of Chalkboard and talk (CNT) to a newer PowerPoint presentation (PPT) to the video classrooms converting the whole traditional environment of the classrooms. This paper aims to assess the perception of medical students about these two instructional methods.* ***Materials and methods***: *In this study cross-sectional descriptive survey was used. Medical students were selected through non-probability convenient sampling. The data were collected using a questionnaire-based survey about their views and perception of two lecture delivery methods, viz., PPT presentation, and using a chalkboard. For each of the two methods, the students were asked to rank twelve comments on a four-point scale: strongly agree, agree, disagree, or strongly disagree. The data was analyzed using SPSS version 16, and the results expressed as proportions.* ***Results***: *In our study, more than 97% of our study respondents emphasized the value of chalk and talk and declared it a more effective and valuable teaching tool in their learning experience than PowerPoint (86%) and recommended it for teaching.* ***Conclusion***: *Both CNT and PPT are effective methods for medical education, and both can be used to deliver classroom sessions effectively.*

Keywords: *Teaching methods; medical education; student's perspective.*

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INTRODUCTION

Lectures have been the most common form of teaching and learning since ancient times.[1] Although discussion methods in small groups appears to be a superior method of attaining higher-level intellectual understanding.[2]

During the past few decades, the classrooms' presentation methods have changed from the traditional CNT to the modern technique of PPT. The most accepted criterion for measuring good teaching technique, however, is the amount of student learning.

Students often have little expertise in knowing if the technique selected by an individual instructor was the best teaching technique or just 'a technique' or simply the method with

which the teacher was most comfortable.[3]

During a lecture, both the visual and auditory senses are used to absorb information and here, assistance in the form of the visual aid is helpful.[4] A chalkboard is uniquely effective as a medium of classroom instruction. It has been used commonly in lectures, while transparencies with an overhead projector (TOHP) are also famous.[5]

In traditional classrooms, a teacher's essential instructional tools for displaying information are chalkboards, multipurpose boards, peg-boards, bulletin boards, and flip charts.[6] To project instructional materials, overhead transparencies displayed via an overhead projector are still commonly used classroom presentation methods.[3] Recently, electronic presentations have become common, and PPT is now the most popular instructional aid.[7]

The impact of technology has led to the increased use of computers for presenting information in many of today's classrooms. PPT hailed as an easy-to-use means of creating professional presenta-tions teachers for creating classroom presentations.[8] A study found PPT to be one of the most widely used software programs in both an area educator preparation program and local public schools.[9] It is seen that "more than 400 million copies of the program are currently in circulation, and somewhere between 20 and 30 million PPT-based presentations are given around the globe each day".[10]

Various studies have been conducted to assess the effectiveness of lectures using PPT or other media compared to lectures using the Chalkboard or TOHP. According to one study, traditional classes with blackboard presentation were the most favoured by students from biomedicine and medicine courses.[11]

Recently, electronic presentations have become common, and PPT is now the most popular package used out of all electronic representations.[12]

Therefore, the present study was aimed to assess the student's perceptions of the impact of PPT presentations in lectures compared with the traditional CNT.

MATERIAL AND METHODS

This is a cross-sectional descriptive study. Medical students were selected through non-probability convenient sampling. The data were collected during 2017 from the undergraduate medical students at Gauhati Medical College and hospital using a questionnaire-based survey about their views and perception of two lecture delivery methods, viz., PPT presentation, and

Table 1 Perception of UG medical students regarding the method of chalk and talk

Sl No	Statements regarding perception	Strongly Agree	Agree	Disagree	Strongly disagree
		%	%	%	%
1.	I understand the lecture better when the teacher uses this technique	26	71	2	1
2.	I feel the student interaction is better with the teacher	33	53	12	2
3.	Eye contact between teacher and student is less	14	41	36	9
4.	The lecture advances the understanding	20	67	12	1
5.	This technique helps me to concentrate and remember better	38	50	10	2
6.	The quality and quantity of my lecture notes can't be maintained	12	48	30	10
7.	The delivery of the lecture is interesting	26	51	20	3
8.	The content of the lecture informative	19	68	11	2
9.	The lecture is audible	28	65	7	0
10.	The lecture content was well organized	30	47	20	3
11.	The teacher remains more professional	25	59	15	1
12.	The teacher needs more preparation for the class	30	50	18	2

using a chalkboard. For each of the two methods, the students were asked to rank twelve comments on a four-point scale: strongly agree, agree, disagree, or strongly disagree. The data was analyzed using SPSS version 16, and the results expressed as proportions. This study is on classroom technique and has not revealed any of the participants' identity, so ethical clearance from the ethics committee is not required. However, informed consent was taken before the collection of the data.

RESULTS

The distribution of perception of undergraduate medical students regarding the method of the CNT is narrated in **Table 1**.

The distribution of perception among the undergraduate medical student regarding PPT as a method of teaching is narrated in **Table 2**.

Table 2 Perception of undergraduate medical students regarding PPT

Sl No	Statements regarding perception	Strongly Agree	Agree	Disagree	Strongly disagree
		%	%	%	%
1.	I understand the lecture better when the teacher uses this technique	30	56	12	2
2.	I feel the student interaction is better with the teacher	29	45	24	2
3.	Eye contact between teacher and student is less	14	47	34	5
4.	The lecture advances the understanding	19	65	16	0
5.	This technique helps me to concentrate and remember better	30	46	21	3
6.	The quality and quantity of my lecture notes can't be maintained	12	48	37	3
7.	The delivery of the lecture is interesting	20	58	22	0
8.	The content of the lecture informative	20	71	7	2
9.	The lecture is audible	24	64	12	0
10.	The lecture content was well organized	35	50	10	5
11.	The teacher remains more professional	27	52	20	1
12.	The teacher needs more preparation for the class	31	42	23	4

In the present study, 97% of the participants emphasized the value of chalk and talk and declared it a more effective and valuable teaching tool in their learning experience than PowerPoint (86%) and recommended it for teaching.

DISCUSSION

Teaching is an art. This study highlights that the favourites technique of lecture delivery for students by different faculties in the classroom can vary so much within the same college.

Different technologies are available in classrooms for teaching in the present-day scenario. The use of better teaching technique aid allows students to understand better. This also allows more time for interaction and further understanding. The use of technology can be a very beneficial and time-saving tool for all teachers.

An evaluation by the students can provide the teacher with the best user feedback regarding the best teaching method.

In the present study, medical student's favoured a combination of teaching aids rather than single teaching support. Regarding medical students' preference, the order of priority of combined teaching aids they have opted for was PPT+CNT using blackboard.

This preference may probably be because the inherent deficiency of each method is compensated by the other. While CNT using blackboard, teaching is deficient in showing the three-dimensional (3-D) diagrams, animated videos and real-time sounds. However, the same can be demonstrated using

a PPT. Furthermore, PPTs take less time to present the same information as compared to CNT using blackboard teaching. CNT teaching allows the students to take down the notes and diagrams that are difficult with PPTs as there is a tendency to deliver the lecture quickly.[13]

The current results agree with Chaudhary R et al.[14] Here, and the author revealed that most students (67.1%) favoured the combined teaching aids. With the CNT using blackboard, the student pointed the drawback: it takes time to draw a labelled diagram on the board, and during that time, the teacher's eye contact with the students gets interrupted.

In their study, SN Baxi et al.,[15] revealed that an equal number of students preferred CNT and multimedia-based lectures. Seth et al.,[16] also compared the preference for teaching aid between medical students versus dental students. The medical students have preferred PPT, whereas the dental students preferred the Chalkboard in their study.

Some participating students opined that the teaching lecture's effectiveness depends on the teacher, regardless of the teaching aid. What is fundamentally essential in university teaching is not the quality of the technology, but the quality of the teacher, as revealed in a stduy[17] agree on the current results. Besides, a good teacher knows to start at a primary point of the course, which students can understand and then lead them gradually through the new and more complex issues.[18]

CONCLUSION

In conclusion, combined teaching support is considered the most satisfying teaching support because one aid's inherent deficiency is compensated by the other. If single teaching assistances are to consider, then the blackboard teaching aid is the most pleased by the undergraduate medical students. They can follow the teacher well with a deep understanding of the concept effectively.

The present study and the previous studies do not bring out the superiority of any single support system of the teaching method. It seems that with the hands of a trained teacher, any teaching technique would be suitable and effective. This highlights the need for formal training of the teachers in teaching in the classroom to develop a perfect skill to motivate students.

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