

ATTITUDE OF UNDERGRADUATE STUDENTS IN THE MEDICAL SETTING: BALANCING TEACHING STYLES, LEARNING STYLES AND TEACHING METHODS

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ABSTRACT

To evaluate the existing teaching methods in pharmacology viz. classes using overhead projector and transparencies chalk n talk, and PowerPoint presentations based on questionnaire designed and provided to second year medical students at a medical college. They were asked to fill the questionnaire and to evaluate different teaching methods used in pharmacology and also they were free to make suggestions and write their own opinion. The results were compared to find out the best method for understanding the subject according to students' opinion as per the subjective assessment of the teaching methods, students liked PowerPoint presentations the most. Many students also suggested use of chalk n talk for explaining the topic & use of PowerPoint presentations for explaining diagrams & flowcharts. According to students' opinion, the best method for understanding and

retaining the subject is PowerPoint presentations in combination with the traditional chalk n talk method.

KEYWORDS: Medical education, lecture, PowerPoint, chalk n talk, Bareilly.

INTRODUCTION

Learning is the cognitive processes whereby an individual acquires the professional and ethical values. Medical education enables students to gain knowledge and apply it in therapeutics. The methodology of teaching a topic will influence the students in the

comprehension of the subject and in the management of clinical conditions. There are various challenges faced by the teachers like differences in learners, differences in their perception and interpretation, variation in the content taught and differences across learning settings. Technological advancements of this era have revolutionised every field of life with teaching methodology being no exception to that different professional institutes differ in their gross structure, teaching aids utilized and their study design. In the medical institutions, we observe the use of both conventional and non-conventional methods. The former encompasses Chalk n talk with oral demonstrations and verbal dictations, while the latter consists of more modern teaching aids, like overhead projectors (OHPs), PowerPoint (PPT) slides, Medical videos and animation clips.^[1] The multiple resources provided by the Internet offer a new and exciting environment that can improve patient care, education, and research. During the past decade the PowerPoint & smart classrooms methods have taken over traditional Chalk n talk teaching methods. The most accepted criterion for measuring good teaching technique is the amount of student learning that occurs. There are consistently high correlations between students' ratings of the "amount learned" in the course and their overall ratings of the teacher and the course along with his presentation technique. Those who learned more gave their teachers higher ratings.^[2] The traditional chalktalk methodology provides strong student-teacher interaction, but its effectiveness declined as the number of students in the class increases. Furthermore, maintenance of discipline and pupil attention may get hampered by it.^[3] Introduced in the 1960s, OHP are the mainstay of teaching in Pakistani medical institutions. Despite their popular use by instructors, students in general seem less than warm towards them. OHP lack the ability to display moving images, have dim visibility and poor optical focus. Writing style and font size are also issues that govern the readability of a transparency.^[4] Microsoft PPT slides, accompanied with multimedia projectors, have remarkably revolutionised teaching. Texts as well as audiovisual clips can be easily played on PP slides.^[5] Text colour; font and size may be modified with ease, and the visibility made catchy with contrasting slide backgrounds. Quality creation of a slide though lies in the hand of its maker, and heavy slides that basically comprise texts become tedious.^[3] Teaching and learning are active processes occurring simultaneously on a continuous basis.^[6] Both teaching and learning are dependent on myriad contextual factors, including the teacher, the learner, the subject matter, environment(s) and the teaching methods. The responsibility lies on the teacher to ensure that student is given the opportunity to think in the classroom.^[7] It has to be acknowledged that attention should be given to the teaching of thinking skills, such as reasoning, creative thinking, and problem solving; as thinking is essential to

knowledge and knowledge is essential to thinking.^[8] Additionally, teachers should ensure that students are given the opportunity to develop their met cognitive abilities. In teaching and learning, strategies should be developed to use of PowerPoint appropriately in the classroom as a tool rather than as a toy. The aim of this study was to find out the best method for understanding and retaining the subject according to students' point of view.

METHODOLOGY

A comparative open label study was conducted from OCT 2012 to DEC 2012 in Shri Ram Murti Smarak Institute of Medical Sciences (SRMSIMS), with proper approval of college institutional ethics committee. Two batches of medical students (n=200), from II year were provided with a questionnaire of 9 questions, the objective and importance of questionnaire was explained. The study questionnaire was designed carefully after literature review and some of the questions were adapted from similar previous studies. A total of 190 medical students completed the questionnaire the results shown with the help of bar diagram, pie chart & percentages.

RESULT

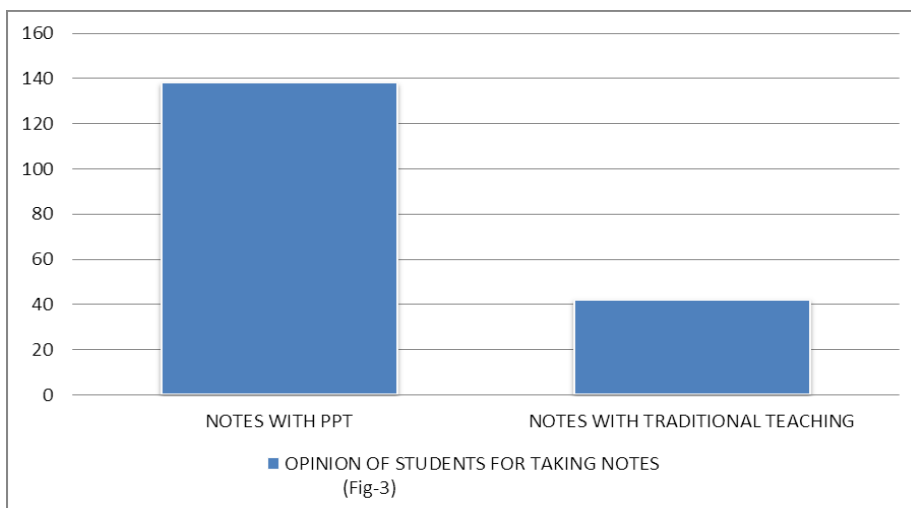
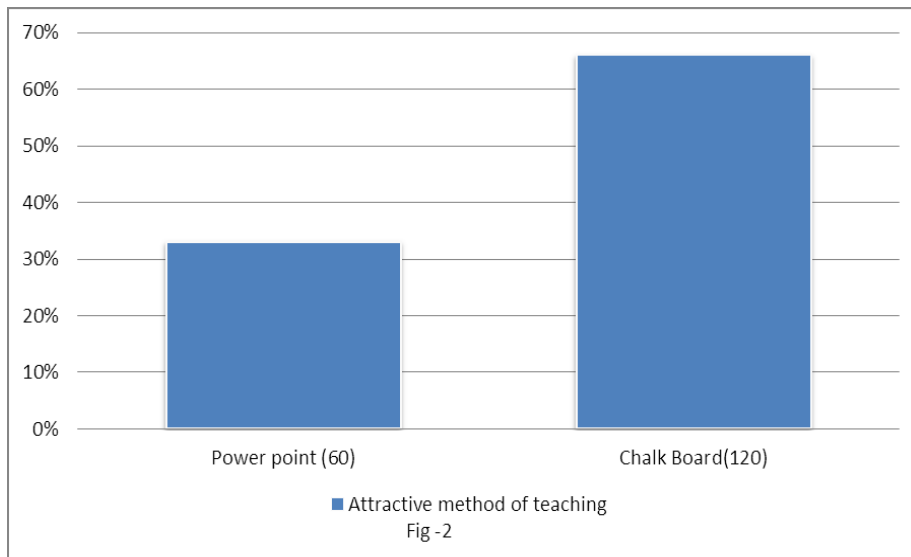
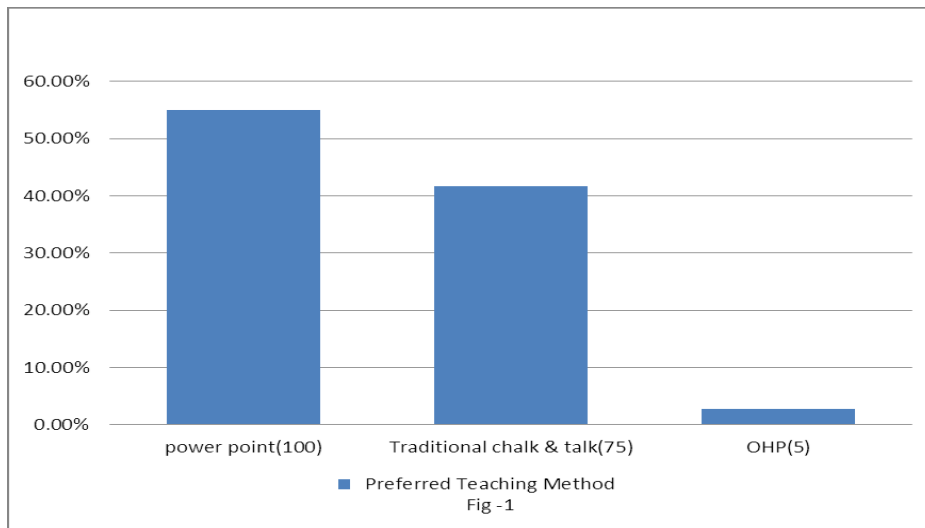
Out of the 200 forms, 180 (90%) were fulfilled properly and 20(10%) were found incomplete, hence rejected.

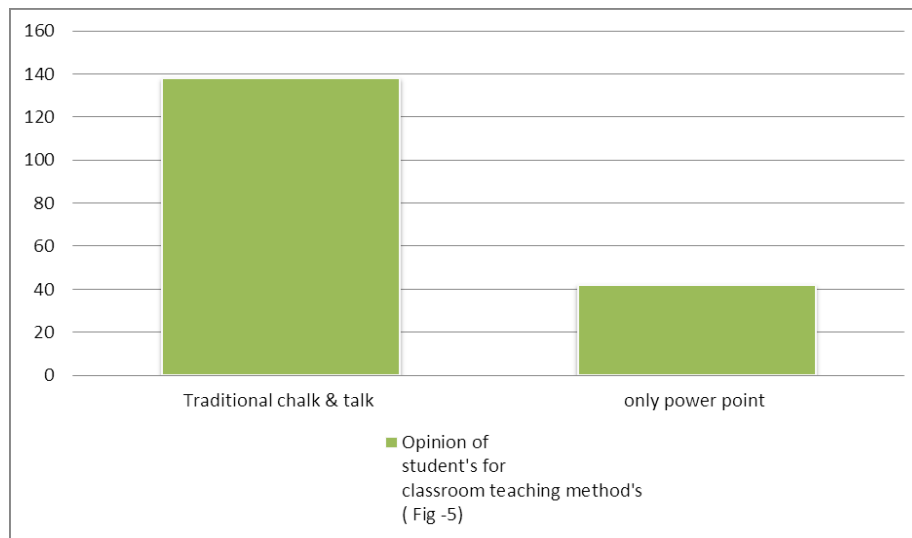
100(55%) student like the power point while 75(41.6%) student like the chalk and talk, and 5(2.7%) were in favour of use of OHP by their teachers to present in their lecture (Fig 1). 60(33%) Students find more attractive teaching method with Power point while 120(66.6%) students find more concentration and less destruction with chalk and talk method. (Fig 2) Similar to above trend, opinion taken from various students, 161(89.4%) student would prefer to teach by traditional combination with ppt and 19(10.6%) in favour of chalk and talk teaching (Fig 3).

138(53.67%) student are in favour of chalk and talk in future while 42(23.30%) in the favour of ppt. 138(53.69%) students felt that their teachers were more comfortable with chalk and talk while 42(23.30%) students felt comfortable with use ppt by their teachers in the lecture theatre.

On the other hand 138(53.67%) students found to easy note down important points with ppt. while 42(23.30%) with chalk and talk. (Fig 4).

According to students for the best method of memorizing is chalk and talk 108(60%) and 72(40%) are in the favour of ppt. (Fig 5).





DISCUSSION

Teaching is a complex process; in our studies we evaluated the opinion of SRMSIMS undergraduate students regarding the effectiveness of each mode. It is an obvious observation that gradually "the use of expressed familiarity with chalk n talk, PPT, transparency and animation forms of learning. Electronic media has become common in medical colleges.^[10] Conservative teaching methods that utilised chalk n talk has been progressively replaced by electronic, more visually attractive teaching aids.

Both conventional and non-conventional teaching aids were in use for undergraduate medical teaching, and the students expressed familiarity with chalk n talk, PPT, transparency and animation forms of learning.

In our study we find that, students are more attractive in lecture with PPT 102 (56.66%) as compared to chalk n talk 78 (43.19%) technique. But we observe an interesting fact that majority of students 165(92%) had opinion to improve classroom teaching with the use of PPT + chalk n talk teaching methods. This is may be due to that the students better memorize diagrams when it drawn on chalk n talk and explain with the help of PPT.

Animations, having too small time per frame or those containing a lot of extra and irrelevant details in them, may lead to poor understanding.^[11] The picturesque presentation of animations must be facilitated with a verbal narration by the teacher.^[12] Also making animations and multimedia videos is a tough task as they take a lot of time to create which can be frustrating.^[12]

Many teachers lack the skill in developing their own animations and only rely on web-based ones that can cover limited topics. The study also revealed that most students believed effective teaching to depend on factors other than the teaching aids used. This enforces the fact that the individual capability of the teacher in conceptually teaching and clarifying a topic is also vital, irrespective of the medium of instruction used.^[13] Therefore, whatever mode of instruction the teacher is using, his/her own personal abilities of verbal oration and oral teaching play a pivotal role in educating the audience and transferring the essence of a topic to them. A good teacher knows to start at a basic point of the course, which students can understand and then lead them gradually through the new and more difficult points.^[14]

CONCLUSION

The medical students in our survey preferred an 'old meets new' combination of chalk n talk with use of PPT presentation over the other teaching methods. Regardless it seems that teaching aid is depends upon a way of lecture by their teachers. So now days we require formal training in teaching technologies from time to time to develop good presentation skills. The findings of the study suggest that a combination of traditional methods with other methods such as PBL, video lectures and mannequins could be an effective way of teaching theory and clinical skills.

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