pISSN 2394-6032 | eISSN 2394-6040

Research Article

DOI: http://dx.doi.org/10.18203/2394-6040.ijcmph20163079

Tutorials: an effective and interactive method of teaching undergraduate medical students

R. Prahan Kumar*, Kanimozhy Kandhasamy, Ramesh Chand Chauhan, Joy Bazroy, Anil J. Purty, Zile Singh

Department of Community Medicine, Pondicherry Institute of Medical Sciences, Pondicherry, India

Received: 18 July 2016 Accepted: 13 August 2016

*Correspondence: Dr. R. Prahan Kumar,

E-mail: rrprahan@yahoo.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Background: There is growing concern among medical educators that conventional modes of teaching medical students neither encourage the right qualities in students nor impart a life-long respect for learning. The aim is to study the perception of undergraduate medical students about tutorials as a teaching learning method.

Methods: A cross-sectional study was conducted among 7th semester M.B.B.S students of Pondicherry Institute of Medical Sciences. A tutorial session was conducted among 71 medical undergraduate students who were divided into 6 groups. The handouts were distributed to all the groups. Tutorial was conducted by trained faculty of the department of community medicine. At the end of the tutorial, a predesigned pretested questionnaire with responses prepared using Likert's scale was given to all students to record their responses and feedback. Proportions of students' response for various items were calculated and analysed using SPSS software.

Results: Among the students who participated in the tutorial session 45 (63.4%) said that they could understand the topic better in tutorial. 49 (69%) students felt time management was better in a tutorial as compared to lecture. 55 (77.5%) expressed that tutorials are more interactive than a lecture.

Conclusions: To conclude, the medical undergraduates felt that tutorial is an effective method of teaching learning process.

Keywords: Tutorials, Teaching learning method, Medical education

INTRODUCTION

Tutorials in its true sense is a small group teaching learning method with the central concept of discussion. Tutorial classes for medical students are imparted to develop and test their own ideas, clarify the material presented in lectures, apply general concepts to the solution of specific problems, define new problems and seek solutions to them, hone problem-solving skills and encourage students in self-learning.

Learning is not uni-directional from teacher to student, but multi-directional, including tutors, other students, and professors. The student receives guidance and support from the others.² Learning occurs through multiple interactions within the learning environment, especially when the students are encouraged and expected to think both creatively and critically.

Responsibility for learning should be placed on the student, with the instructor's role shifting from lecturer to facilitator. From students' point of view, the main characteristics for a good tutorial are tutors allowing enough time for discussion, accepting students as partners, refraining from interference and having expertise.³ It has also been found that the components of

a rich learning environment are stimulation by classmates, a knowledgeable and creative faculty and a large amount of personal contact between students and instructors.⁴

Most of the current teaching techniques are didactic involving very less student participation and the knowledge is imposed on the students. Using the current techniques, the lesson taught to students is not skill oriented, and therefore, although we are producing good number of health workforce but are unable to meet the needs of the community.⁵

There is growing concern among medical educators that conventional modes of teaching medical students (lecture-based curricula) neither encourage the right qualities in students nor imparts life-long respect for learning. Undergraduate medical education, as with any other educational programme, needs ongoing improvements to meet the changing demands of medical practice in the present century. Medical education should be given the same emphasis as research and patient care. Hence the present study was conducted to assess the perception of undergraduate medical students about tutorials as teaching learning methods as compared to a traditional teaching learning method (lecture).

METHODS

A tutorial session was conducted among 7th semester MBBS students of Pondicherry Institute of Medical Sciences. 71 students attended the tutorial session and all the students were divided into six groups comprising of 12 students per group. A pre test was conducted prior to the tutorial to record the understanding of the topic by the students.

Handout of the topic to be covered for the session was prepared well in advance and lesson plan of the tutorial was also made. The handouts were distributed to all the groups. Tutorial was conducted by trained faculty of the department of Community Medicine who had undergone medical education training by MCI. Each group was accompanied by one faculty.

During the tutorial session hand outs were read by students for 30 minutes following which the topic was discussed by the faculty within the same group. Lastly, student representatives from each group were invited for a panel discussion during which one student moderated the session and others discussed the topics among each other, shared their views and asked questions to get clarifications from the faculty.

At the end of the tutorial, a predesigned pretested questionnaire with responses prepared using Likert's scale was given to all students to record their responses and feedback about the effectiveness of Tutorials as a teaching learning method as compared to Lecture. Also a post test was conducted to assess the understanding of the

topic after the tutorial. The data was entered in Microsoft excel 2007 and was analysed using SPSS version 16. Proportions of students' response for various items were calculated.

RESULTS

Among the students who participated in the tutorial session 45 (63.4%) said that they could understand the topic better in tutorial and 55 (77.5%) expressed that tutorials are more interactive than a lecture. Overall, as compared to lecture, majority of the students (66.2%) rated tutorials as a better teaching-learning method.

Students gave written feedback for the tutorials session. Some of the feedbacks given by students are –

- "Discussing particular topic makes the subject to be clear."
- "Small group; interaction proper with teacher and within groups."
- "Was able to ask doubts to assigned tutors."
- "Catches attention, sustains interest."
- "Very useful, everyone will get the chance to talk."
- "Message clearly reached the students."
- "Equal involvement amongst all the group members."
- "Very interactive; almost like friends teaching us."
- "Sustains attention of audience, not monotonous."

Table 1: Perception of undergraduate medical students about tutorials as teaching learning methods as compared with lecture (n=71).

	Students' responses about tutorial as compared to lecture		
Variable	Poor n (%)	Same n (%)	Better n (%)
Understanding of the topic	6 (0.08)	20 (28.1)	45 (63.4)
Proper management of time	7 (0.09)	15 (21.1)	49 (69)
Interaction with students	5 (0.07)	11 (15.5)	55 (77.5)
Achievement of objectives	6 (0.08)	21 (29.5)	44 (61.9)
Overall rating	6 (0.08)	18 (25.3)	47 (66.2)

Figures in parentheses are percentages.

DISCUSSION

Today the most common teaching learning method used in medical education is a didactic lecture. A traditional lecture doesn't encourage a fruitful participation of students and doesn't promote interaction among teacher and students.⁴ For effective skill learning as well as to create and sustain the active interest of students in learning, the teaching learning method must be

interactive and participative in nature. A tutorial is a participative teaching learning method which promotes discussion and better understanding of a topic. In our study, tutorials were conducted using a handout prepared with reference from standard textbooks for undergraduate medical students.

Students were divided into six groups, each group facilitated by a trained faculty who promoted healthy interaction among the students. At the end of the tutorial, students were given the feedback form with questions to be answered for testing the efficacy of a tutorial as compared to a lecture.

In present study majority of the students (77.5%) felt that tutorials were more interactive than lecture and hence tutorials are better able to sustain students' attention. Raven et al also in their study found that good tutorial must promote students participation and refrain from interference. The study findings in our study are similar to a study conducted by Stalin et al on integrated teaching program among undergraduate medical students. On the basis of their findings, active teaching—learning method creates interest among students, and it is an effective learning method for them to learn the subject in a better manner.

63.4 % of the students in our study stated that tutorial was better teaching learning method than lecture as regards to the understanding of the topic. Shah et al also in their study observed 65.3% students' response that tutorials are more useful as compared to lecture to understand any topic. Majority of the students (66.2%) in our study gave better 'overall rating' to tutorial as a teaching-learning method than lecture. MJS Dawane et al and G Sivagnanam also found that students preferred tutorials than a lecture as a teaching learning method. 9,10

CONCLUSION

To conclude, the medical undergraduates felt that tutorial is an effective method of teaching learning process. Group interaction and understanding of subject was perceived to be high among the students with this method. Hence Tutorials need to be included as part of regular teaching schedule for undergraduate medical students.

ACKNOWLEDGEMENTS

Authors would like to thank and acknowledge the contribution of all the undergraduate medical students who consented and participated in this study. We also express our acknowledgment to the post graduate students and other faculty of Department of Community Medicine, who actively supported for the planning, implementation and completion of this study.

Funding: No funding sources Conflict of interest: None declared Ethical approval: Not required

REFERENCES

- 1. Jagzape AT, Jagzape TB, Srivastava T. Tutorial review: Evolution to Modifications. Journal of Health Education Sciences. 2015;2(1):51-5.
- James R, Baldwin G. Tutoring and demonstrating: a guide for the University of Melbourne. Melbourne: Centre for the Study of Higher Education, The University of Melbourne, Australia. 1997. Available from: http://www.cshe.unimelb.edu.au/ bookpages/chap1.html
- 3. Savery JR, Duffy TM. Problem based learning: an instructional model and its constructivist framework. Educ Technol. 1995;35:31-7.
- Ravens U, Nitsche I, Haag C, Dobrev D. What is a good tutorial from the student's point of view? Evaluation of tutorials in a newly established PBL block course Basics of Drug Therapy. Naunyn Schmiedebergs Arch Pharmacol. 2002;366(1):69-76.
- Mishra AK, Manikandan M, Kumar R, Chauhan R C, Purty AJ, Bazroy J. Concomitant use of handouts, group and panel discussion as a teaching technique for undergraduate medical students. Int J Innov Med Educ Res. 2016;2:18-22.
- 6. Kasselbaum DE. Change in medical education: the courage and will to be different. Acad Med. 1989;64:446-7.
- 7. Stalin P, Bazroy J, Singh Z, Divija R, Velavan A, Veerappan I. Evaluation of correlated integrated teaching programme among undergraduate medical students. J Res Med Educ Ethics. 2014;4(1):60-4.
- 8. Shah AR, Shethwala ND, Parmer B. Perception of undergraduate medical students towards the subject of pathology at one of the medical colleges of Gujarat, India. Int J Med Sci Public Health. 2014;3(7):863-5.
- 9. Dawane MJS, Pandit VA, Dhande PP, Sahasrabudhe RA, Karandikar YS. A Comparative study of Different Teaching Methodologies used for developing understanding of Cardiac Pharmacology in Undergraduate Medical Students. IOSR Journal of Research & Method in Education (IOSR-JRME). 2014;4(3):34-8.
- 10. Sivagnanam G, Saraswathi S, Rajasekaran A. Student-Led Objective Tutorial (SLOT) in Medical Education. Med Educ Online. 2006;11:7.

Cite this article as: Kumar RP, Kandhasamy K, Chauhan RC, Bazroy J, Purty AJ, Singh Z. Tutorials: an effective and interactive method of teaching undergraduate medical students. Int J Community Med Public Health 2016;3:2593-5.