

Original Research Article

Perceptions of undergraduate medical students about teaching-learning methods adopted by faculty members in community medicine

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ABSTRACT

Background: Effective learning is closely associated with effective teaching. Achieving effective learning requires a student centered and outcome-focused approach.⁴ Various interactive techniques like Problem Based Learning (PBL), facilitated group discussion, E-learning, Massive Open Online Courses (MOOCS) etc., are being implemented in TL sessions in medical schools. These methods are found to be effective to foster better learning among medical students. The present study was an attempt to understand the perceptions of undergraduate medical students, posted at Government Medical College and Hospital, Mahabubnagar, Telangana about different teaching methodologies

Methods: A cross sectional study was conducted among 56 MBBS students of 4th semester. A pre-tested, self-administered, structured questionnaire was devised which consisted of ten questions with three to four options each. Study participants were asked to fill up the questionnaire under strict supervision and they were allotted 15 minutes to complete the same. Entire data was entered into Microsoft Office Excel Sheet and analysed.

Results: Out of 56, 32 (57.14%) female students and 24 (42.85%) male students voluntarily participated in the study. Large number of participants i.e., 66.07% thought that FGD is the best method of teaching. Most of participants i.e. 96.42% had favourable attitudes towards PPT as they felt that it improves their learning.

Conclusions: Maximum number of undergraduate medical students knew about E learning. Facilitated Group Discussion (FGD) was the most preferred teaching learning methodology by students. The majority of them had positive perceptions towards the use of Power Point Presentation (PPT) as a powerful teaching tool in medical education.

Keywords: Students, Perceptions, Teaching, Education, Questions, Supervision

INTRODUCTION

There have been burgeoning developments in medical education and health care. The medical education in India is facing serious challenges in content and competencies.¹

Several Medical institutions in India are emphasizing on various innovative teaching learning (TL) methods to facilitate learning among students.²

Teaching is a multifaceted and demanding activity that involves mastery of content, classroom management,

techniques of organization, and command of teaching skills. Teaching consists not only of mere instruction, but also of the systematic promotion of learning by the means that promote student retention and learning of the material conveyed during lecture.³

Effective learning is closely associated with effective teaching. Achieving effective learning requires a student centered and outcome-focused approach.⁴

Various interactive techniques like problem based learning (PBL), facilitated group discussion, E-learning, Massive Open Online Courses (MOOCS) etc., are being

implemented in TL sessions in medical schools. These methods are found to be effective to foster better learning among medical students.⁵

The present study was an attempt to understand the perceptions of undergraduate medical students, posted at Government Medical College and Hospital, Mehabubnagar, Telangana about different teaching methodologies.

METHODS

Study design and study population

This was an institute based cross sectional study carried out at Government Medical College and Hospital, Mehabubnagar, Telenegana. A total of 150 MBBS students belonging to 4th semester, posted at Community Medicine Department, were included in the study as study participants.

Study period

Present study was carried out from June 2018 to December 2018.

Inclusion criteria

- Medical students of IV semester of the institute.
- Able to understand the study questionnaire.
- Willing to participate in the present study.

Exclusion criteria

- Medical students other than IV semester of the institute.
- Not able to be contacted in spite of repeated attempts.
- No willing to participate in the present study.

Ethics

The study was conducted after an approval of by the Institutional Ethical Committee (IEC) of respective institute. An informed consent was taken from study participants.

Methodology

Students were informed about the study nature and their informed consent was taken. A pre-tested, self-administered, structured questionnaire was devised which consisted of ten questions with three to four options each. The questions were related to various teaching learning methods. Study participants were asked to fill up the questionnaire under strict supervision and they were allotted 15 minutes to complete the same. Anonymity of participants was guaranteed.

Out of 150 students available, only 56 could be included as per the inclusion and exclusion criteria designed for the present study. Remaining 96 were either chronically absent or did not consent to be included in the present study.

Statistical analysis

Entire data was entered into Microsoft Office Excel Sheet and analysed. Appropriate statistical tests were applied as and when required after the data analysis was done.

RESULTS

Table 1 shows distribution of study subjects as per age and sex. A total of 150 study participants, 94 could not complete questionnaire due to absenteeism. Hence the data was retrieved from remaining 56 participants. Out of 56, 32 (57.14%) female students and 24 (42.85%) male students voluntarily participated in the study. Age bracket of participants was in the range of 19 to 23 years. The semester of participants was one of the questions in the questionnaire. All were from 4th semester students.

Table 1: Distribution of study subjects as per age and sex.

Demographic factors	Number	%	
Sex	Male	24	42.85
	Female	32	57.15
Age (years)	19-23	56	100

Table 2: The perceptions of study participants about teaching methodologies (n=56).

Item	Yes (%)	No (%)
Have you heard of e learning?	49 (87.5)	7 (12.5)
Can e- learning be implemented in your college?	39 (69.64)	17 (30.35)
Do teachers have significant role in learning?	56 (100)	0
Do you like current system of medical education principles of TL in Community Medicine?	56 (100)	0
Does use of PPT improves learning?	54 (96.42)	2 (3.57)

FGD–Facilitated group discussion, PPT–Power Point Presentation, TL–Teaching & Learning.

Table 2 shows perceptions of the students regarding the teaching methodologies through questionnaire. 49 i.e. 87.5% of the students said yes to the question that have you heard of E-learning but 7 i.e., 12.5% of the students said that they never heard of the e learning. On asking about can E-learning be implemented in your college, all students i.e., 56 were optimistic and said that yes it can be implemented in their college? On asking the question on

do you do you like current system of medical education principles of TL in Community Medicine, all students i.e. 56 said that yes they liked the current system of medical education principles followed for teaching learning technology in the department of Community Medicine.

On asking Does use of PPT improves learning, 54 i.e., 96.42% of the students said that yes the power point presentation improves the learning while only two students i.e., 3.57% said that it does not necessarily improves the learning.

Table 3: The preferred teaching-learning methods by study participants (n=56).

Item	PPT (%)	Lecture/bedside teaching/Field based work (%)	Chalk and talk (%)	FGD (%)
The best method of teaching	12 (21.42)	02 (3.57)	05 (8.92)	37 (66.07)
Method which keeps more interested in class	28 (50)	18 (32.14)	01 (1.78)	35 (62.5)
The most favourite mode of teaching	21 (37.5)	05 (8.92)	01 (1.78)	25 (44.64)

FGD-Facilitated group discussion, PPT-Power Point Presentation.

Table 3 shows the preferred teaching-learning methods by study participants. Majority i.e., 37 (66.07%) of the students said that the best method of teaching was focussed group discussion followed by power point teaching or the use of power point presentation while teaching which the answer was given by 12 students i.e., 21.42%. Only two students preferred the lecture/bedside teaching/field based work and only five students preferred chalk and talk method of teaching learning. On asking the question method which keeps more interested in class, again majority of 35 students i.e., 62.5% said that focussed group discussion keeps them interested in class while 18 students i.e., 32.14% said that the lecture/bedside teaching/field based work keeps them interested in class and only one student said that chalk and talk method keeps them interested in class and 28 (50%) said that power point method keeps them interested in the class. On asking the question, the most favourite mode of teaching, again majority of 25 students i.e., 44.64% said that focussed group discussion was their favourite mode of teaching, 21 (37.5%) said that power point method was their favourite mode of teaching, 05 (8.92%) said that the lecture/bedside teaching/field based work was their favourite mode of teaching and only one said that chalk and talk was their favourite mode of teaching.

DISCUSSION

Power Point Presentation (PPT) slides have become an oft-used pedagogical aid. A good PPT presentation can enliven a lecture by offering imagery to support key points.⁶ The results of our study showed that most of participants i.e., 96.42% had favourable attitudes towards PPT as they felt that it improves their learning. Similar finding was observed in study of Naqvi et al.⁷ PPT was also preferred by maximum 37% students in a study of Joshi et al.⁸

In present study, maximum numbers of participants (87.5%) were aware of E-learning. This seems to be welcoming sign as E-learning is now widely practiced method to facilitate learning among students and it is

very useful for them to get adopted with E-learning methodologies. A study in Iran reported that only 30.7% of medical students knew about E-learning.⁹

Facilitated group discussion or problem-based learning is a teaching method in which complex real-world problems are used as the vehicle to promote student learning of concepts and principles as opposed to direct presentation of facts and concepts.¹⁰ This is an interactive small group teaching which helps students to undertake their own responsibility of learning.

In our study, large number of participants i.e., 66.07% thought that FGD is the best method of teaching and it makes them more interested in class. Sahu et al revealed that medical students had positive perceptions toward small group teaching; particularly in learning experience and teamwork.¹¹ A study conducted at King Saudi University, Saudi Arabia showed that the majority of medical students enjoyed the process of small group teaching and they preferred this method for their learning.¹² In our study, the majority of participants (66.07%) stated 'lack of infrastructure' as the predominant reason for difficulty in implementing facilitated group discussion (FGD).

The study also mentioned that most participants believed that, apart from teaching learning aids, role of teacher has a vital role in their learning process. This reiterates the fact that the individual capability of the teacher in conceptually teaching and clarifying a topic is also essential, irrespective of the medium of instruction used. Therefore, whatever mode of instruction the teacher/faculty is using, his/her own personal abilities of verbal oration play a significant role in educating the students and transferring the essence of a topic to them.

CONCLUSION

In current study, maximum number of undergraduate medical students knew about E-learning. Facilitated group discussion (FGD) was the most preferred teaching-learning methodology by students. The majority of them

had positive perceptions towards the use of Power Point Presentation (PPT) as a powerful teaching tool in medical education.

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Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. Vision 2015: Medical council of India. Available at: https://old.mciindia.org/tools/announcement/MCI_booklet.pdf. Accessed on 8 June 2018.
2. Gimbel RW, Cruess DF, Schor K, Hooper TI, Barbour GL. Faculty performance evaluation in accredited U.S.I public health graduate schools and programs: a national study. *Acad Med*. 2008;83(10):962-8.
3. Rao SP, Di Carlo SE. Active learning of respiratory physiology improves performance on respiratory physiology examinations. *Adv Physiol Educ*. 2001;25(2):55-61.
4. Meguid EA, Collins M. Students' perceptions of lecturing approaches: traditional versus interactive teaching. *Adv Med Educ Pract*. 2017;8:229-41.
5. Sharma R, Yadav SM, Joshi SM, Kaushik PB. Students' perception of teaching-learning methods in Community Medicine at a Government Medical College in Rajasthan. *Indian J Community Health*. 2017;29(2):145-50.
6. Young JR. When good technology means bad teaching: giving professors gadgets without training can do more harm than good in the classroom, students say. *The Chronicle of Higher Education*. 2004;51:31-7.
7. Naqvi SH, Mobasher F, Rehman-Afzal MA, Umair M, Kohli AN, Bukhari MH. Effectiveness of teaching methods in a medical institute: perceptions of medical students to teaching aids. *J Pak Med Assoc*. 2013;63(7):858-64.
8. Joshi KP, Robins M, Reddy MY. Perception and preferences of teaching and learning methods in Community Medicine: a cross sectional study. *Int J Community Med Public Health*. 2018;5:2821-4.
9. Ghanizadeh A, Mosallaei S, Dorche MS, Sahraian A, Yazdanshenas P. Use of E-Learning in education: attitude of medical students of Shiraz, Iran. *Internal Med Medical Invest J*. 2018;3(3):108-11.
10. Baxi SN, Shah CJ, Parmar RD, Parmar D, Tripathi CB. Students perception towards different teaching aids in a medical college. *AJHPE*. 2009;1:15.
11. Sahu PK, Nayak S, Rodrigues V. Medical students' perceptions of small group teaching effectiveness in hybrid curriculum. *J Educ Health Promot*. 2018;9(7):30.
12. Al Turki YA. Medical Students' perceptions of small group teaching A Qualitative study. Available at: <https://www.mededworld.org/getattachment/MedEdWorld-Papers/Papers-Items/Medical-Students-perceptions-of-small-group-teach/Medical-Students-perceptions-of-small-group-teaching.pdf>. Accessed on 14th October 2018.

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