

Preferences and perceptions of teaching and learning methods of preclinical medical students

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Abstract

Background and objectives: Teaching methods used in medical education should be evaluated from time to time to improve the quality of future doctors. So, this study was conducted to know the preclinical student's preferences and perception about the current teaching and learning process.

Methods: The present study was conducted at Adesh Medical College and Hospital, Shahabad among 150 students of second year MBBS course. A predesigned and prevalidated questionnaire was used to assess students' preferences and perception of teaching, learning and assessment methods. Students' opinion about the quality of a good teacher was also sought.

Results: Out of 150 students, 54% and 62% chose lecture and chalk and board combined with power point presentation (PPT) respectively as the most preferred teaching method and aid. About half (53%) of the students chose written assessments as the most preferred assessment method. Very few students (6%) expressed that ability to generate curiosity in students as a quality of a good teacher.

Conclusion: The present study suggested that lectures by chalk and board supported by PPT and written assessment were the most preferred teaching learning and assessment methods.

IMC J Med Sci 2022; 16(1): 010. DOI: <https://doi.org/10.55010/imcjms.16.008>

Introduction

In India medical education has a goal to make competent Indian medical graduate. In order to achieve this goal, medical teacher has to introduce various methods of teaching. Gaining this medical knowledge of teacher by the students help the students to learn the necessary skills and attitudes related to medical practice [1]. During MBBS course, a number of teaching learning methods are used to increase student's participation and involvement in lectures as well as in practical classes [2]. The quality of medical education depends on these teaching learning methods used in medical colleges [3]. To improve the quality and competency of future doctors, methods used in medical education should be evaluated from time to time. With passing generations, the needs and

understanding level of students are changing. Also, the students in a medical college differ in their age, place, learning styles, understanding level and memorizing skills [4]. So, it is very important for a medical teacher to know the educational needs of students for delivering his/her knowledge to students in a more efficient, retainable way which is only possible by taking feedback from students regarding teaching learning methods. Another problem faced in medical education is to plan a lecture in such a way that students can retain maximum knowledge in a short span of time [5]. Therefore, it is very important to obtain students' feedback on teaching learning methods used to teach them. This would help to improve their understanding of the subject and skills. Improved learning process is necessary to enhance the

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academic performance and to make the life easier, stress free and interesting in medical college. In this way, the goal of making a competent Indian medical graduate is achieved. The aim of this study was to know the preclinical students' preferences and perception about current teaching-learning methods, teaching aids and assessment methods used by faculty at Adesh medical college and hospital. Students' opinion about the quality of a good teacher and the obstacles faced during the learning process were also sought.

Material and methods

The present study was conducted at Adesh Medical College and Hospital, Shahabad among 150 students of second year MBBS course (Batch 2017-2018). A total of 11 systems in physiology were taught by lectures (165 hours), seminars (60 hours) and small group discussions (25 hours) during the first year MBBS course. These lectures were taken using different teaching aids like chalk and board along with power point presentation (PPT), only chalk and board, only PPT, smart boards and videos and animation. Out of total 39 assessments taken

(including formative and summative), 14 were written assessment, 14 were oral assessments and 11 were tutorials. Questionnaire was prepared keeping in view the teaching learning and assessment methods used in this college. This predesigned and prevalidated questionnaire was given to second year students to know their perception and preferences about teaching learning methods, teaching aids and assessment methods used in teaching physiology curriculum during the first year MBBS course (Figure-1)

They were also asked to identify the common obstacle(s) they experience during physiology theory lectures. Their opinion about a good teacher was also sought. They were also told to give their suggestions to improve current teaching learning methods. Prior written informed consent was taken from all the students. They were assured that their identity would not be disclosed and their responses would be kept confidential. Students were informed that this information would be used only for research purpose and to improve current teaching learning process. The study was approved by the institutional ethical committee. The data collected was analyzed in percentages.

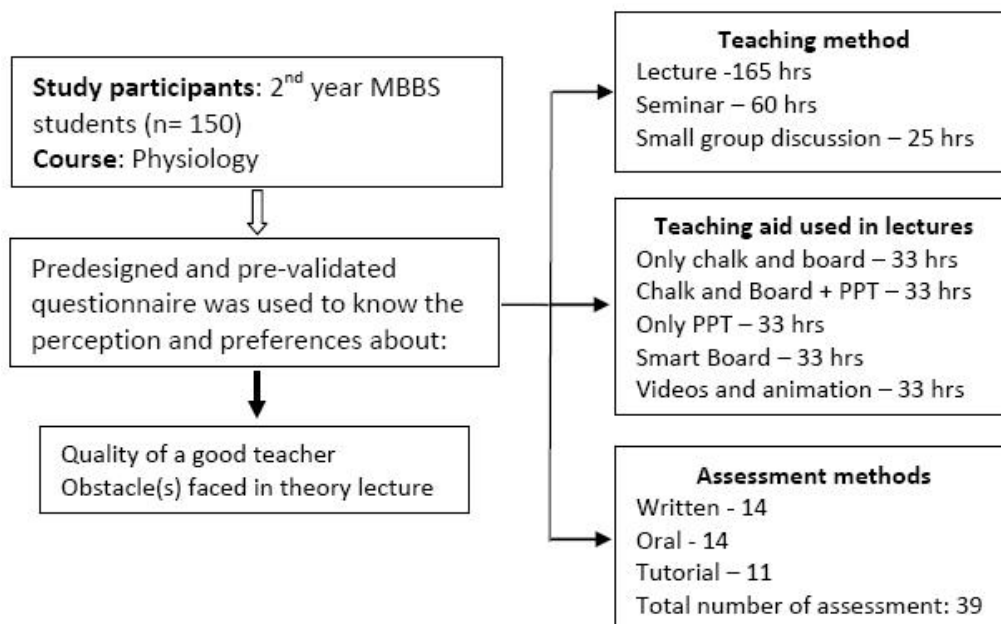


Figure-1: Study outline

Results

In our study, 81(54%) students found lectures to be the most preferred teaching learning method followed by small group discussion (31%) and seminar (15%) as shown in Table 1.

When asked about teaching aid, then out of 150 students, 93 (62%) students chose combination of chalk and board and PPT as the most preferred teaching aid and smartboards were chosen by 4 (2.7%) students making it least preferred teaching aid. Only PPT was preferred by 24 (16%) students, only chalk and board was preferred by 19 (12.7%), and videos and animation was preferred by 10 (6.7%) students. Written assessments were found to be most preferred assessment method as chosen by 79 (52.7%) students and oral assessment was chosen by 22 (14.7%) students which made it least preferred assessment method.

Table-1: Students' preference of teaching-learning and assessment methods

Teaching-learning methods	Number of students in favour of (%)
Teaching method	
Lecture	81 (54)
Small group discussion	47 (31.3)
Seminar	22 (14.7)
Teaching aid	
Chalk, Board and PPT	93 (62)
Only PPT	24 (16)
Only chalk and board	19 (12.7)
Videos and animation	10 (6.7)
Smartboards	4 (2.7)
Assessment method	
Written	79 (52.7)
Tutorial	49 (32.7)
Oral	22 (14.7)

Regarding the satisfaction of the students about current teaching learning methods, 18 (12%) students were strongly satisfied, 92 (61.3%) were satisfied, while 25 (16.7%) and 15 (10%) students were unsatisfied and strongly unsatisfied respectively (Table-2).

Students' perception about the quality of a good teacher is shown in Table-3. Of the total students, 41 (27.3%) students stated that a good teacher should be knowledgeable while 31 (20.7%) students expressed that the teacher should have good understanding of subject. Twenty five (16.7%) students wanted that teacher should be audible and should have clear speech while 10% students want that teacher should be easy to approach and interactive with students. Very few students 9 (6%) expressed that ability to generate curiosity in students as a quality of a good teacher.

Table-2: Level of satisfaction of the students about current teaching-learning methods

Level of satisfaction	Number of students (%)
Strongly satisfied	18 (12)
Satisfied	92 (61.3)
Strongly unsatisfied	25 (16.7)
Unsatisfied	15 (10)

Table-3: Students' perception about quality of a good teacher

Perception of a good teacher	Students in favour (%)
Knowledgeable	41 (27.3)
Understanding of subject	31 (20.7)
Clarity of speech	25 (16.7)
Easy to approach	15 (10)
Interactive with students	15 (10)
Making a topic easy for students	10 (6.7)
Generates curiosity in students	9 (6)
Personality	4 (2.7)

Common obstacles faced by the students in theory class are shown in Table-4. Out of total 150 students, 63 (42%), 43 (28.7%) and 29 (19.3%) students stated lack of clarity of speech, length of lecture and speed of teaching respectively were the most common obstacles they faced during the theory class. Only 2.7% students found student teacher ratio as an obstacle during theory class.

Table-4: *Common obstacles faced by the students in theory class*

Obstacle faced in a theory class	Response n (%)
Clarity of speech	63 (42)
Length of lecture	43 (28.7)
Speed of teaching	29 (19.3)
Language barrier	11 (7.3)
student teacher ratio	4(2.7)

Discussion

Medical education is the most exigent field of study in today's time. Medical educator has the responsibility to make medical education a joyful and stress free experience for young students. It is very important to review teaching learning methods used so that any changes, if required according to changing needs of students could be made. This is necessary for efficient learning in a congenial atmosphere in a medical college. This will help to produce competent doctors and thus shall benefit society also. The present study was conducted at Adesh Medical College and Hospital, Shahabad among 150 students of second year MBBS course. In this study, it was found that lectures were the most preferred teaching method among students. Similar findings were observed by others [6-10]. In lecture, a topic could be conveniently taught to a large group of students. Seminar was chosen as the least preferred teaching learning method which was consistent with the findings of previously reported study [11]. In a seminar there is no active participation of the whole class. Lectures can be made more interactive using various teaching aids. In this study students chose combination of chalk and board and PPT as the best teaching aid. The present study is consistent with previous studies [12-14]. Combination of teaching aids should be used to meet the needs of different segments of learners [15]. Didactic lectures with chalk and board supported by diagrams in PPT helped students to make lectures more interesting and easy to understand. With chalk and board they get time to understand the topic and with diagrams, videos and animations incorporated in PPT they can have clear perception of topic. This also helps to retain

and interpret topic in a better way. Teaching with PPT combined with chalk and board breaks the monotony of lecture and improves the attention span of students.

The best assessment method found by the students was written assessments and oral assessments were chosen as the least preferred assessment method. This is consistent with other studies [11]. The students come to know about their shortcomings by written assessments and that eventually help them to overcome their weakness and knowledge gaps. Students do have perception of a good teacher. In our study, most of the students feel that personality of a teacher doesn't matter much in their learning but he/she should have knowledge and understanding of the subject. He/she should be easy to approach so that they can discuss their problems easily. They feel that teacher should be interactive with students so that they can remain attentive in class. They also feel that teacher should make topic easy for them as the curriculum is very vast and a good teacher can guide students how to understand and retain a topic in a short span of time. This coincided with the findings of previous study [3]. In the present study, very few students (9%) regarded generating curiosity in the minds of students as a quality of a good teacher. This finding indicates that most of the medical students lack interest in creative thinking.

The present study suggested that interactive lectures using chalk and board supported by PPT and regular written assessment were the most preferred teaching-learning and assessment methods. Further study is needed to find out why medical students lack interest in creative thinking.

Acknowledgement: All the participants who participated in this study

Funding and support: Nil

Conflict of interest: Nil

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