

Perceptions of Medical Students about Various Teaching and Learning Method

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Abstract

Objective: To determine perceptions of undergraduate medical students regarding various aspects of teaching and learning methods, using student's feedback performa.

Subjects & Methods: This cross-sectional study was carried out on 100 students of a private medical college with attached tertiary care hospital. Student's feedback was recorded on predesigned performa. Data were entered on SPSS version 16 for further analysis.

Results: Among 100 students, 46% considered videos as an effective learning aid and 41% preferred power point presentations as a better tool. For theory teaching, 62% preferred Problem based learning (PBL), 18% and 12% picked tutorials and Socratic Method as a better teaching method. For clinical teaching, bedside teaching was preferred over all methods by 44%, followed by 31% and 25% for mannequins and audiovisual aids respectively.

Conclusion: The student feedback showed that undergraduate medical education is in need of gradual shift from teacher centered learning towards student centered approach, by incorporating PBLs, videos and self directed learning in combination with the traditional methods of teaching.

Key words: Undergraduate medical teaching,, Feedback Learning methods, PBL.

Introduction

The most important responsibility of any teaching professional is to impart knowledge to its students in the best possible way.¹In the context of medical education, this responsibility is highlighted further. Undergraduate medical teaching requires an approach in which students and teachers work mutually, in-order to devise teaching tools,

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which are effective for the process of learning, and also best suited for the student's requirements.^{1,2} To develop effective

learning, such teaching techniques are required which stimulate critical thinking and analytical problem solving. Thus, it becomes essential to utilize an approach to teaching and learning that is best suited to the needs of the students.² Different teaching methodologies are being used at different institutions, but traditional didactic lectures remain as the major method of delivering a large database of knowledge to a big number of students.³This method is the oldest, and despite its benefits, is teacher centered.⁴It provides little room for interaction and also does not instigate the processes of problem solving, critical thinking or self-learning in the students.⁴ Socratic Method of teaching is one which involves students thoroughly by asking them a series of pre-defined questions about a subject. The students are required to refer to the textbooks and study the content before the class. In this method the teacher doesn't give the knowledge directly, but explores the deeper limits of awareness of knowledge.⁴ PBL, on the other hand, is a method in which students learn about a subject through the experience of solving an open-ended problem found in trigger material. The PBL process does not focus on problem solving with a defined solution, but it allows for the development of lateral thinking.¹ These teaching methods are used by some institutions, but the use is not standardized, and the main teaching method remains didactic lectures.⁵This study was conducted to determine the perceptions and preferences of medical students regarding various teaching methods and tools which may help in their learning more. The results are expected to help bring changes in the current educational scenario and to become more learner friendly. The objectives of this study were:

1. To determine the perceptions of medical students about various teaching and learning methods.
2. To highlight teaching tools, based on these perceptions, in order to make teaching effective for an enhanced student learning experience.

Subjects and Methods

It was a cross sectional study carried out on 100 students, of a private medical college. The study duration was from 2nd March to 23rd June 2015. The study population was 3rd year medical students, who were selected by convenient

sampling. The data was collected on pre-designed performa, at the mid of 3rd year session MBBS. Informed verbal consent was taken by the students at the start of the study. Data were entered on SPSS version 16 for further analysis.

Results

The total study population was 100 students out of which 36% were males and 64% were females, 80% of the students were 21 years of age. About 39% had > 90% attendance in their last academic year, 36% had more than 75% attendance, 21% with >50% and only 4% had <50% attendance. About 70% of these students believed that maintaining a regular attendance improved their understanding of subjects and overall grades. About 46% of the students in our study considered videos as a preferred aid for teaching & learning, followed by 41% who found power point presentations as a more effective aid. Only 3% of the study population preferred black board teaching. In the context of student's preference for theory teaching methods (Table 1), about 62% of the students found problem based learning (PBL) as a useful method, followed by 18% & 12%, who found tutorials and Socratic method as an effective method respectively. Didactic lectures for teaching was the least popular amongst students and only 4% of the students were in favour of each of this method. For clinical teaching (Table 2), about 44% students preferred bedside teaching as an effective teaching method, 31% preferred mannequins & 25% preferred audio visual aids.

Table 1: Students preference regarding Theory teaching(n=100)

Teaching method	Percentage
Problem based learning	62
Tutorials	18
Videos	46
Power point presentation	41
Socratic method	12
Didactic lectures	04

Table 2: Students preference regarding Clinical teaching (n=100)

Teaching Method	Percentage
Bed side teaching	44
Mannequins	31
Audio-visual aids	25

Discussion

This study identified certain areas in teaching and learning methodologies, which can bring about improvements in under-graduate teaching and medical education. Our study had a higher female representation i.e. 64% which is similar to some other studies.^{4,6} The main reason for that is trend of females interested in medical field in our society. A good

observation in the study is that 75% of the students had an overall attendance of > 75 percent, and 70% of these students believed that maintaining a regular attendance is directly related to better grades; the observation similar to that reported in some other studies.^{7,8}

Majority of the students (46%) in our study preferred videos as an effective learning aid. Several studies have been done in the past which prove a relationship between visual clues and the process of memorizing along with a recall for new knowledge.^{9,10} Next in preference were power point presentations, which accounted for 41% of the study population. Studies have proved the evidence of its usefulness, for the reason that it improves the information given in a study session.¹¹ It's a very powerful, easily available and effective tool, which can be utilized by both the teachers and the students for learning and teaching purposes.¹¹ In our study only 3% of the students preferred blackboards as a useful aid for learning. This study is similar to another local study, which showed blackboard teaching as the least favorite teaching medium amongst students.¹² However, another regional study showed contrast results, where students showed preference to blackboard teaching because they thought it created better subject understanding and made teaching more interactive.¹

Difficult and dry subjects can be made interesting for the students by giving them a problem situation (PBL), the situations they will face in real professional life. They can also be allotted tasks as a source of learning from that situation and thus mental exercise.¹³ In the context of student's preference regarding theory teaching methods, most of the study students (62%) found PBL as the most effective method of teaching. Several studies have proved that PBLs are very useful teaching methods, especially when compared to lectures as these enhance lateral learning and better clinical correlation.¹⁴⁻¹⁶

Most of the students in our study (44%) preferred bedside teaching for clinical teaching, followed by 31% who opted for mannequins as their favorite clinical teaching tool. Studies with similar results have shown that students believe bedside teaching improves clinical skills along with effective communication with patients and better theory correlation.¹ Teaching on Mannequins, although an effective tool for teaching has certain drawbacks, like lack of patient communication and ethical practices, constrains of cost, maintenance and storage etc. which limits their use¹

Conclusion

1. Student feedback is an effective way for understanding the needs of students in order to make teaching more effective.
2. A gradual drift, from traditional teaching methodology, which was more teacher centered, towards students is the need of the day, to make them active learners.
3. Traditional lectures along with other methods of teaching like PBLs, videos, bedside teaching and

mannequins should be used in combination for a better teaching and learning experience.

Conflict of Interest

The study has no conflict of interest as declared by any author.

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Authorship Contribution:

Author 1: Active participation in active methodology, Conception, Synthesis and Planning of the research, analysis and discussion

Author 2,3: Active participation in active methodology