

Students' Perception on the Effectiveness of Various Teaching and Learning Methods in Anatomy

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Abstract

In the modern concept of medical education the role of the faculty member is to facilitate the learning process. Multiple techniques have to be used in order to reach as many different types of learners as possible. The students develop problems like difficulty in studying and understanding of the heavy volumes of the pre-clinical subjects (especially Anatomy), when they join for MBBS. So it is always essential to know the views of the students while revising the curriculum and to know the best teaching methodology which will facilitate the learning process.

Aims: Objectives:

- to assess students' perception of various teaching methods
- to get the opinion of students about the teaching method they feel most interesting
- to know the reasons behind the most accepted method
- to compare traditional and modern teaching methodologies
- to invite suggestions for improvement

Settings and Design: The data was collected from the first MBBS students (n=150) by using a specially designed questionnaire comprising of points relating to the teaching and learning methodology and assessment techniques in PKDIMS, Kerala. *Statistical analysis used:* epi info. *Results:* Students felt about the lecture hours as really interesting and majority favoured normal lecture and group discussions as effective methods. Short notes are considered as the best method among the different patterns of evaluation and many others suggested a combined form of evaluation. *Conclusions:* To conclude, even though the medical education is advanced with a variety of innovative learning technologies, students prefer lecture notes and hands on training in cadaver as the best methods of learning. The future learning sessions can be made more interactive considering the above facts.

Keywords: Teaching Methodology; Student's Perception; Problem Based Learning.

Introduction

Anatomy has been always recognized as an essential foundation for clinical sciences.

In the modern concept of medical education the role of the faculty member is to facilitate the learning process. Multiple techniques have to be used in order

to reach as many different types of learners as possible. The students who are in the adolescent age group undergo a prior "spoon feeding" type of coaching by their parents and teachers. They develop problems like difficulty in studying and understanding of the heavy volumes of the pre-clinical subjects (especially Anatomy), when they join for MBBS. So it is always essential to know the views of the students while revising the curriculum and to know the best teaching methodology which will facilitate the learning process.

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Key Message

Eventhough the medical education is advanced

with a variety of innovative learning technologies, students prefer lecture notes and hands on training in cadaver as the best methods of learning

them is for the research and evaluation purpose only and will be confidential. The questionnaire were collected back from the students and analysed considering each question of the questionnaire.

Objectives

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Subjects and Methods

The data was collected from the first MBBS students (n=150) by using a specially designed questionnaire comprising of points relating to the teaching and learning methodology and assessment techniques in P K Das institute of Medical Sciences, Ottapalm, Kerala.

The students were briefed about the questionnaire & asked to respond freely and fearlessly. They were also be informed that the information furnished by

Results

The questionnaires were found to be complete except for a few where they didn't respond to all questions. The important data were taken into account during the analysis part and are discussed as follows:

Students were asked how they felt about the lecture hours to which majority(n=87) strongly agreed that they felt it really interesting (Figure 1).

- 1-Strongly disagree
- 2-Disagree
- 3-Neutral
- 4-Agree
- 5-Strongly agree

Attitude of students towards the method of teaching when assessed, pointed to the fact that majority favoured normal lecture and group discussions as effective methods, while a good number(n=34) strongly disagreed to seminars as a teaching method (Table 1).

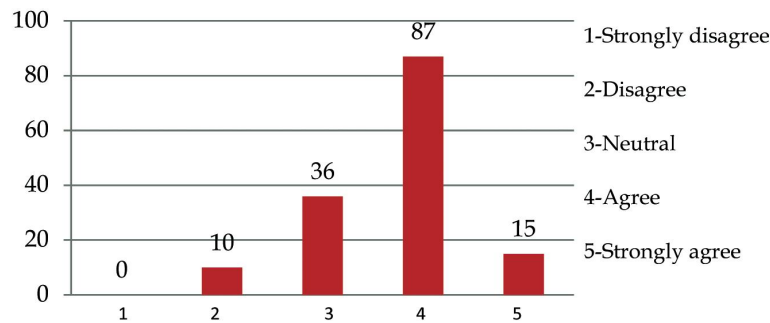


Fig. 1: Topics covered during normal lectures are interesting

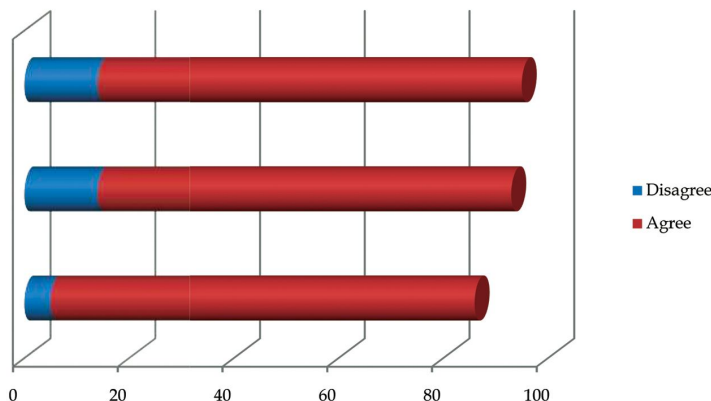


Fig. 2: Opinion about the Faculty Members

Table 1: The method of teaching you feel more effective

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	No response
(a) Normal Lecture	1	4	10	79	28	28
(b) Group Discussion	1	5	14	61	31	38
(c) Seminars	34	19	19	18	4	56

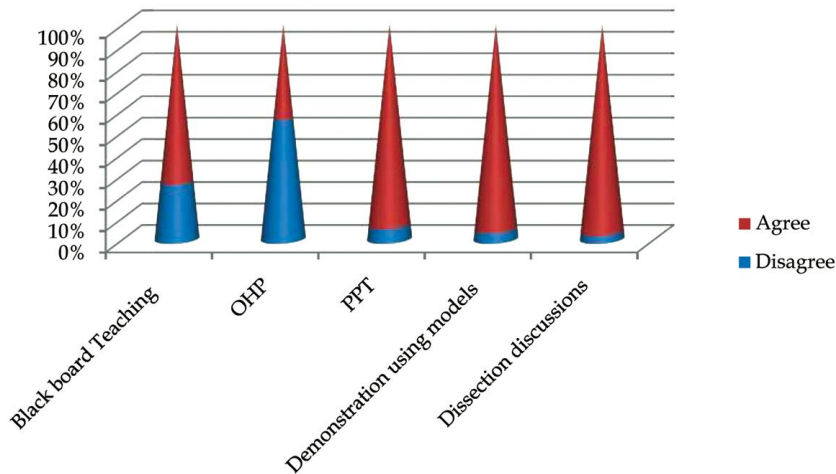


Fig. 3: Medium of teaching & their application

- 1 The faculties are approachable and helping to clarify the doubts.
- 2 Faculties are having good communication skill.
- 3 Faculties are making the lectures interesting.

Majority of the students agreed to the fact that faculties are having good communication skills and approachable in time of need (Figure 2).

The students were asked about the medium which they prefer for classes. Most of the students opined that power point, demonstration and dissection discussions helped them a lot while some disagreed to the methods using blackboard and OHP (Figure 3).

The students were asked to comment on the different patterns of evaluation. Majority (n=90)

opined that Short notes are the best method and many others (n=60) suggested a combined form of evaluation. Long essays, discussions, viva voce and Multiple choice were not helpful according to some students (Table 2).

Table 2: Pattern of Evaluation

The method you feel better way of evaluation	Disagree	Agree
Long Essay Question	16	58
Short Essay Question	5	76
Short Notes	2	90
Multiple choice Questions	17	49
Viva voce	18	45
Discussion	19	56
A combined form of all the above	8	60

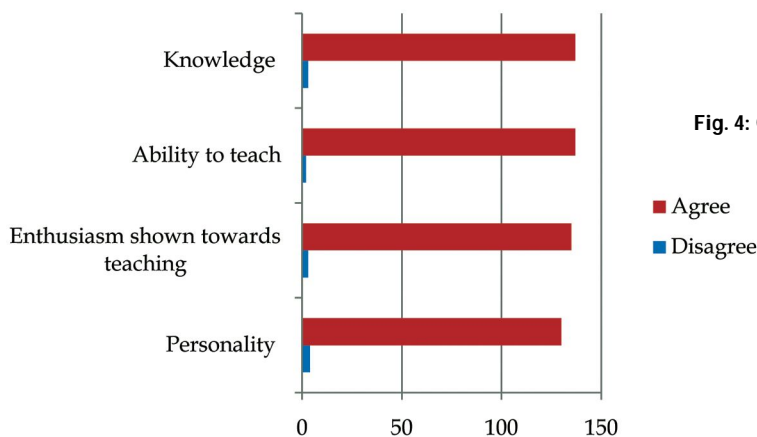


Fig. 4: Qualities of a teacher influencing students

Knowledge of the teacher, ability to teach, enthusiasm shown towards teaching and personality were considered as the criteria to assess qualities of a teacher. Majority of the students were influenced by all the mentioned qualities a teacher could possess (Figure 4).

Among the different learning methods lecture notes and self notes were acceptable to majority of students whereas some disagreed to reference method (n=23 + 8) and to the idea of following a single text book (n=26+5).

Table 3: Attitude towards learning methods

	Strongly Disagree	Disagree	Undecided/Neutral	Agree	Strongly Agree
Prefers lecture notes	2	7	16	78	42
Prepare self notes	2	1	21	64	51
Prefers Reference study	8	23	49	36	21
Prefers to follow single text book for a subject	5	26	21	54	36

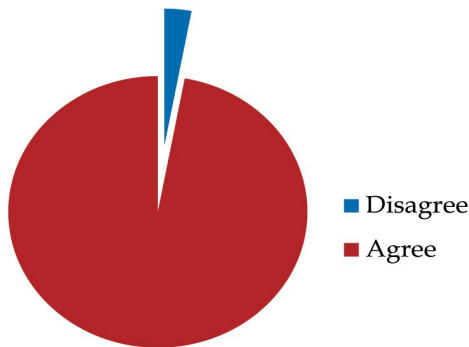


Fig. 5: Prefers clinical problem based approach

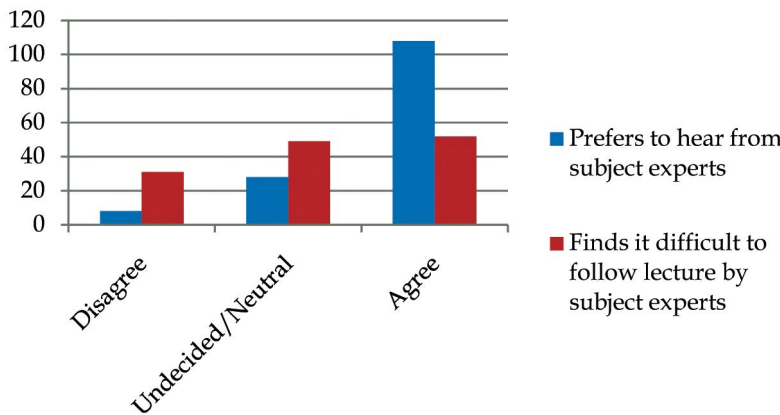


Fig. 6: Attitude towards vertically integrated lectures

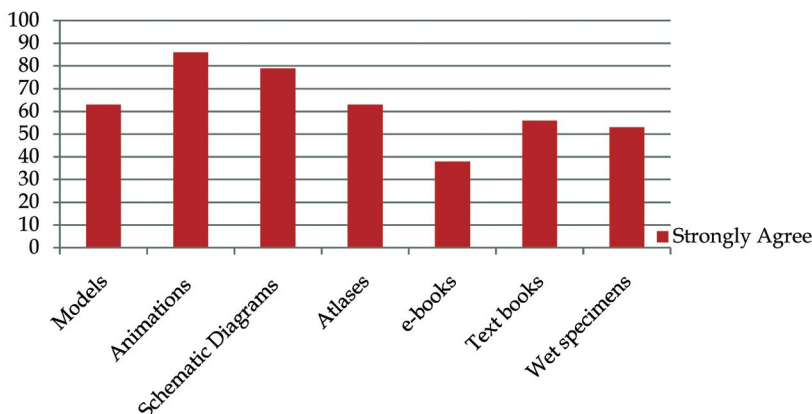


Fig. 7: Need for various teaching aids

The students were asked to make a comparison between classes based on basic theory and those based on problem based approach to which majority preferred the later, since it created an interest to the topic compared to blank theories (Figure 5).

Vertical integration with lectures by subject experts were found to be useful for many while some could not follow since the topic is dealt in detail. Since the students were not exposed to many lectures in this category a small group expressed their neutral attitude (Figure 6).

The different teaching aids used by the students were considered out of which majority found animations, schematic diagrams and models helpful and e-books were not favoured by many (Figure 7)

Discussion

Students felt about the lecture hours as really interesting and majority favoured normal lecture and group discussions as effective methods. According to some studies, as a teaching mode 59% of the students favored group discussion versus didactic lectures (14%). Almost 48% felt that those didactic lectures fail to create interest & motivation [1].

Almost all the students agreed to the fact that faculties are having

good communication skills and are approachable in time of need.

Short notes are considered as the best method among the different patterns of evaluation and many others suggested a combined form of evaluation.

Knowledge of the teacher, ability to teach, enthusiasm shown towards teaching and personality were considered as essential criterias for a good teacher .

Among the different learning methods lecture notes and self notes were acceptable to majority of students whereas some disagreed to reference method and to the idea of following a single text book. The students preferred classes based on problem based approach, since it created an interest to the topic compared to blank theories. Problem based learning (PBL) is explained by eminent scientist as 'In PBL students use "triggers" from the problem case or scenario to define their own learning objectives. Subsequently they do independent, self-directed study before returning to the group to discuss and refine their acquired knowledge [3].

Vertical integration with lectures by subject experts were found to be useful for many while some could not follow since the topic is dealt in detail.

The different teaching aids used like animations, schematic diagrams and models were helpful and e-books were not favoured by many. ybArora L & Sharma BR consider that the dissection forms important part in training of undergraduate students [2]. Using appropriate coeducational equipment and improving lecturer's teaching skills can make a big step in the elevation of students learning in Anatomy lesson [4].

Medical students would prefer that anatomy is taught practically (via dissection, use of prosection, with living and radiological anatomy) than

theoretically (via didactic teaching, models [5].

Conclusion

To conclude ,eventhough the medical education is advanced with a variety of innovative learning technologies, students prefer lecture notes and hands on training in cadaver as the best methods of learning. However power point lectures are more acceptable than chalk and board and the knowledge and personality of teachers influenced them a lot. Problem based learning methods generate a curiosity in them rather than basic theories. The future learning sessions can be made more interactive considering the above facts.

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