

An Analytical Study on Teaching and Learning Methods of Third Semester Medical Students in a Government Medical College

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Abstract:

Background: Most of the medical colleges still follow age old techniques in teaching. There is a need to improve the teaching methods for the medical students, taking into consideration the perception of the students.

Aim and Objective: This study was done to evaluate the teaching and learning methods of third semester medical students in a Government Medical College.

Materials and Methods: The study was done on 140 medical students of third semester, of age 18-20 years. The study subjects were given a common questionnaire to fill, about various teaching and learning methods in Pharmacology and the results were analyzed using Likert Scale.

Results: Regarding the teaching methods, chalk and board method was agreed by 29.3%, PPT (power point presentation) by 42.4%, OHP (overhead projector) by 10.7%, interactive and activity based sessions by 45.7%. In connection with the learning methods, 32.9% agreed that group discussions were useful, 17.9% tutorials, 15% seminars, 25% revision classes, 20% weekly exams, 25.7% monthly exams, 14.3% viva. Regarding examination pattern, 52.1% agreed MCQs were useful while 19.3% for short answer questions, 16.4% for essays. As for study pattern, textbooks was agreed by 15.7%, textbooks and self notes by 30%, text books and class notes by 45%. With reference to the study frequency, daily reading was opted by 7.1%, weekly by 15%, monthly by 22.9%. Regarding contents to be displayed on notice board, exam marks was agreed by 10%, monthly schedule of classes by 52.9%, monthly attendance by 75% of students.

Conclusion: Regular feedback from the students regarding teaching and learning methods along with incorporation of the latest updates in the education system will help in better outcome of the medical students.

Keywords: Learning process, multiple choice questions, power point presentation, teaching process, tutorials.

I. Introduction

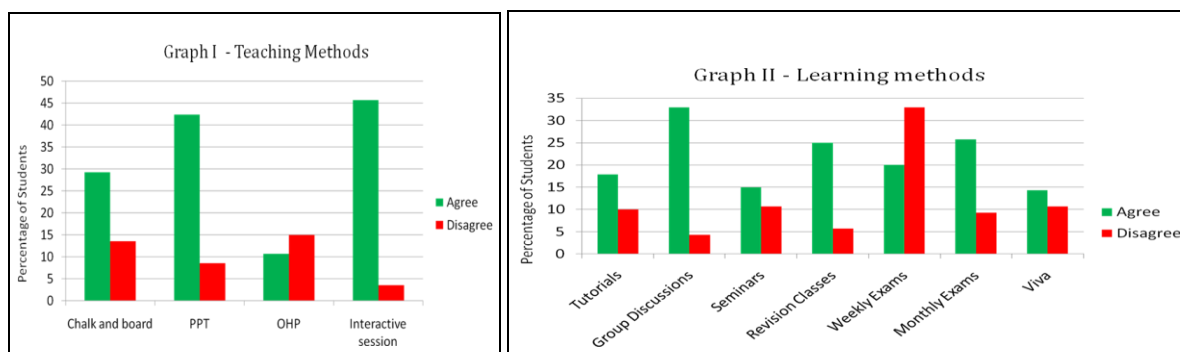
Pharmacology⁽¹⁾ in medical sciences is an ever changing subject. The primary goal of teaching Pharmacology is to train the students on rational and scientific basis of therapeutics. The undergraduate Pharmacology curriculum has always been a topic of intense debate. This is a challenging subject where the medicos have to update their knowledge about the drugs based on the latest advances in the field. The teaching programmes⁽²⁾ have to be reviewed at regular intervals, thereby modifying the methodologies of teaching drugs. Teaching and learning methods⁽³⁾ in Pharmacology is very crucial as it lays a strong foundation to the medicos, to become good doctors in future. This study was a sincere effort made to know about the teaching and learning methods followed, so that any required modifications can be suggested.

II. Materials and Methods

This study was conducted in the department of Pharmacology, S.V.Medical College, Tirupati, India. A total number of 140 students (n=140) between the ages 18-20 years have participated in this study and informed consent was taken from all the participants. The students were handed over a common questionnaire and were instructed to opt for their opinion regarding various teaching and learning methods in Pharmacology. They were asked not to provide any personal information and not to reveal their identity in the questionnaire. The students' practical hour was utilized to complete the questionnaire. In the questionnaire, Likert Scale Rating⁽⁴⁾ was given (1 -5). The students were asked to fill the common questionnaire by using the options (1-5) of Likert Scale. The completed forms were collected and descriptive statistics⁽⁵⁾ was used for analysis of data. Frequency was shown as percentage.

III. Results

Responses from all the participants (n=140) to the questionnaire were analyzed and the data has been interpreted with Likert Scale.

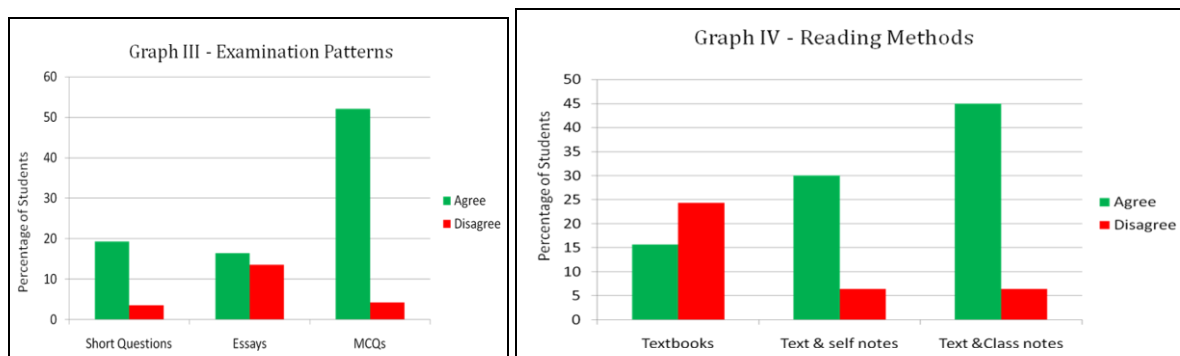


Regarding various teaching methods in Pharmacology, it was observed that 29.3% of students agreed that chalk and board⁽⁶⁾ method, 42.4% power point presentation⁽⁶⁾⁽⁷⁾, 10.7% OHP⁽⁸⁾, 45.7% interactive and activity based sessions⁽⁹⁾ were the best methods of teaching Pharmacology to students. And 13.6% disagreed that chalk and board was the best method, 8.6% disagreed for PPT, 15% disagreed for OHP, 3.6% disagreed for interactive and activity based sessions. From the Graph I, it can be said that interactive and activity based sessions was the best as they are liked by most of the students and disliked by very little percentage of students.

On various learning methods, it was observed that 17.9% of students opted for tutorials⁽¹⁰⁾, 32.9% for group discussions⁽¹¹⁾, 15% for seminars⁽¹²⁾⁽¹³⁾, 25% for revision classes, 20% for weekly exams, 25.7% for monthly exams, 14.3% for viva. The students agreed that the respective learning methods were the best methods to recollect the syllabus. At the same time, 10% disagreed that tutorials were of any use, 4.3% disagreed on group discussion, 10.7% disagreed on seminars, 5.7% disagreed on revision classes, 32.9% disagreed on weekly exams, 25.7% disagreed on monthly exams, 14.3% disagreed on viva. By taking both agree and disagree parameters, we can conclude that maximum students liked group discussions and minimum students disliked it. Thus, we can conclude that group discussions was the best method to recollect the syllabus according to students' point of view (Graph II).

Of various examination patterns, it was noticed that 19.3% of students opted for short answer questions, 16.4% for essays, 52.1% for multiple choice questions. At the same time, 3.6% disagreed that short answer questions was the best method for conducting examinations, 13.6% disagreed on essays, 4.3% disagreed on MCQs⁽¹⁴⁾⁽¹⁵⁾. So it can be concluded that maximum students preferred MCQs and minimum students disagreed for it (Graph III).

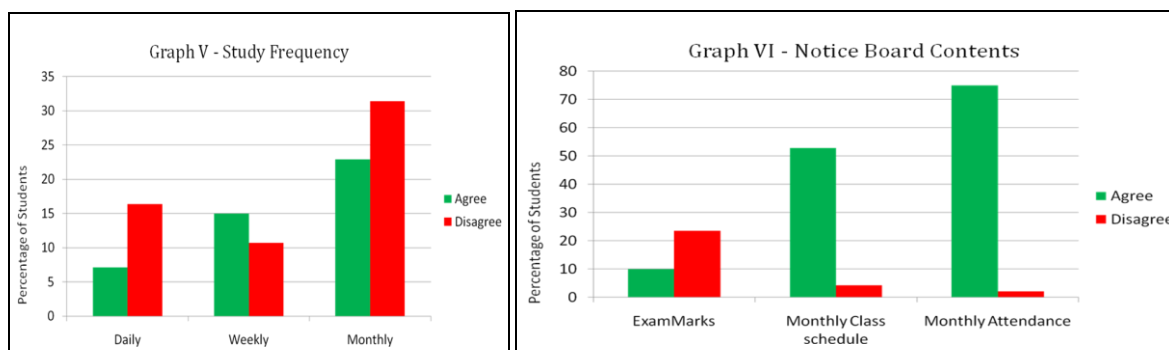
With regards to the reading methods, it was noticed that 15.7% agreed that textbooks were useful, 30% for text books and self-prepared notes, 45% for text books and class notes. At the same time, 24.3% disagreed that textbooks were useful, 6.4% disagreed for text books and self-prepared notes, 6.4% disagreed for text books and class notes. So the best method was learning by textbook and class notes (Graph IV).



With regards to frequency of studying Pharmacology, 7.1% students were of the opinion that daily reading helped them to improve their subject, 15% weekly reading, 22.9% monthly reading. And 16.4% opined against daily, 15% against weekly, 31.4% against monthly reading. The students' opinion of reading

Pharmacology at an interval of once a month cannot be justified as Pharmacology is a very volatile subject and the students need to read, understand and memorize everyday (Graph V).

Regarding the contents to be displayed on notice board, it was observed that 10% of students showed willingness for display of exam marks, 52.9% agreed for display of monthly schedule of classes and 75% showed willingness for display of attendance every month. Whereas, 23.6% opted against display of exam marks, 4.3% against display of monthly schedule, 2.1% against display of monthly attendance as shown in Graph VI.



IV. Discussion

This study was basically aimed at improving the teaching system of medical students by getting the feedback from the students regarding their perception of the teaching and learning methods as followed in the current education system. Rapid advances in technology like internet have changed the education system. Most of the students were of the opinion that interactive and activity based sessions and PPT were useful. As we know that Pharmacology is a very volatile subject, the most difficult part - classification of drugs - can be made easy by interactive sessions. By using the latest advances in technology like PPT, the classes can be made more attractive and interesting. The memory retention of a topic is longer when the students can listen to a subject simultaneously while watching them on visual aids like PPT. But chalk and board method also should be followed in the sessions as it is the age old golden route of teaching method. In order to make the teaching sessions more lively, group discussions along with seminars, tutorials and exams should be conducted in the department. MCQs should also be introduced in the examination as the students were of opinion that they are useful to them. Definitely textbooks with self prepared notes and class notes will help the students, but at the same time, the students should inculcate the habit of reading daily. As opined by the students, monthly schedule of classes and monthly attendance should be displayed on notice board, while exam marks should not be displayed.

V. Conclusion

Student's feedback is the best method to know the shortcomings of teaching and learning methods being followed. The feedback can be used to suggest changes in the education system and improvise the methods currently being used. From this study, we can conclude that majority of students liked interactive and activity based sessions as the best method of teaching followed by PPT. Many students were of opinion that group discussions helped them a lot in recollecting the syllabus and MCQs were liked by many of them. So there is definitely a need to introduce MCQs in examinations after thorough analysis. As Pharmacology is a volatile subject, it has to be read daily and the students have to be taught the importance of self-prepared notes, along with the textbooks and class notes. Attendance should be displayed on the notice board as it reflects the discipline of the student. Monthly schedule also should be displayed so that the students can come prepared for the classes and can have useful interactive sessions. Regular feedback has to be taken from the students regarding the teaching methods, and the results should be carefully analyzed.

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