

# Students' perception of effective learning experiences in government medical college

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## Abstract

**Objective:** To obtain students feedback on teaching methodologies and evaluation methods for the betterment of teaching and learning pharmacology. **Material and Methods:** The study was done by Department of Pharmacology, Hassan Institute of Medical Sciences, Hassan. A questionnaire containing 14 questions were given to second MBBS students who were due to appear for examination. They were supposed to tick one suitable option. Descriptive statistics is used for analysis of data. Frequency expressed as percentage. **Results:** Total response of 93.33% was observed. Most of the students preferred blackboard as the teaching media which imparts knowledge (65.3%) and better interaction between student and teacher (81.6%). Majority of students felt that cardiovascular system (47.9%), Hormones (32.6%), Autonomic Nervous system (31.6) and Clinical pharmacology (27.55%) as most interesting topics in Pharmacology. Central nervous system (40%) was mentioned as the most difficult topic to understand. 69% mentioned Tutorials and 52% Group discussion as most useful method in preparing for University exams. Students preferred textbooks and class notes (41.8%) for studying pharmacology. As a part of pharmacology practicals, Clinical pharmacology (44.9%), Prescription writing and Problem solving exercises (26.5%) was preferred. Most of the students felt that special topics like Emergency drugs (57%) and Rationale use of drugs (23%) should be discussed in lectures/ practicals. 65% of students felt Pharmacology to be integrated with other subjects. **Conclusion:** Collaboration of various teaching methods if adopted will ensure in depth knowledge acquisition and improved performance in exam. Incorporation of clinically oriented teaching program will guide students to study the subject from futuristic point of view. Frequent feedback from students may help teachers plan the curriculum and improve the teaching.

**Keywords:** Feedback, Learning, Pharmacology.

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## INTRODUCTION

Pharmacology like other branches of medical sciences is ever changing medical subject. Not only the concepts but teaching methodologies are also keeping on innovating<sup>1</sup>. A curriculum is a vision and road map to meet the academic objectives. The undergraduate pharmacology curriculum has always been a topic of intense debate. It

has been generally felt that pharmacology course in medical schools has failed to keep pace with the rapid changes and requirements of clinical practice<sup>2</sup>. Traditionally it has focused more on factual information with little or no emphasis on clinical and applied aspects<sup>3</sup>. Reviewing the teaching program at regular intervals and modifications in methodologies of imparting basic knowledge about drugs and drug therapies is a must. Many attempts have been made by various colleges all over India and abroad to make teaching of pharmacology more interesting and relevant<sup>4</sup>. Few studies are conducted in Indian setting related to feedback of teaching methodologies and evaluation methods from second year medical students<sup>5</sup>. Due to the diversity in teaching, we thought of eliciting opinion of students to consider their views regarding subject, the methodology of teaching and their learning strategies. The feedback from students helps us to know about pros and cons of teaching and assessment methods. This feedback represents the

primary means used by most programs to assess their methodology<sup>6</sup>. This inspired us to undertake this study to evaluate the teaching and assessment in pharmacology for undergraduate medical students.

**OBJECTIVE**

The purpose of the study is to obtain the student feedback on teaching methodologies and evaluation methods in Pharmacology for the betterment of teaching and learning the subject.

**MATERIALS AND METHODS**

The study was conducted in the department of Pharmacology at Hassan Institute of Medical Sciences, Hassan among second year MBBS students after obtaining permission from Institutional Ethical Committee. A questionnaire containing 12 questions with

2 – 5 options are given to the students and are asked to tick one option. The students are instructed not to reveal their identity in the questionnaire. The completed questionnaire are collected and analysed for the data.

**Statistical Analysis**

Descriptive statistics is used for analysis of data. Frequency is expressed as percentage.

**RESULTS**

Out of 105 students 98 students completed the questionnaire. Students preferred blackboard 65% and combination 23% with liquid crystal display (LCD) and over head projector (OHP) as the teaching media which imparts knowledge. They also felt that blackboard (81%) also provided an opportunity for better interaction between students and teacher.

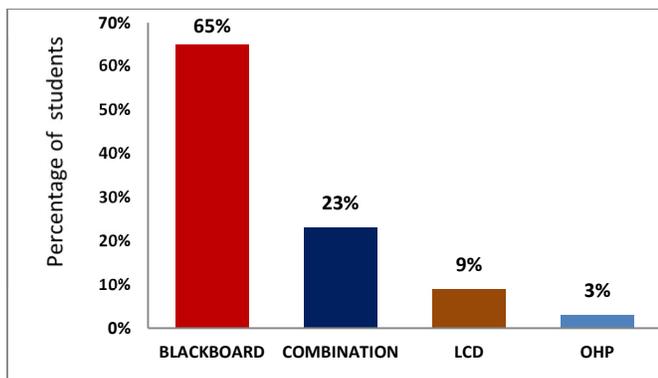


Figure 1: Teaching Media to impart knowledge

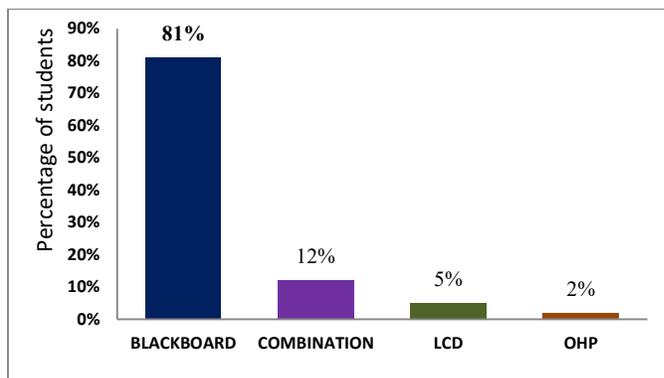


Figure 2: Teaching Media: Student Teacher interaction

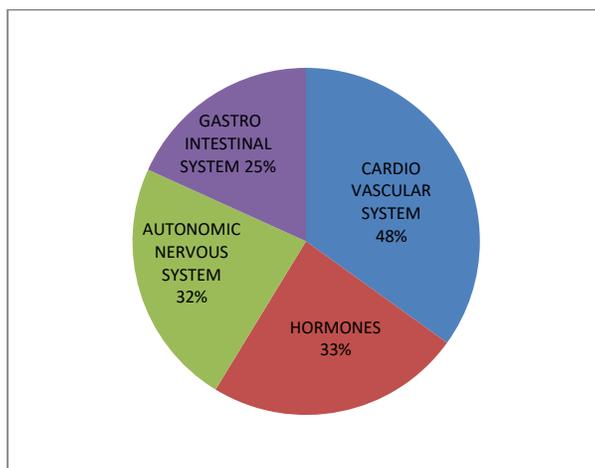


Figure 3: Interesting topics in Pharmacology

Most of the students found CVS (48%), ANS (32%) as the most interesting and hormones 33%, GIT 25% as the least interesting topics in pharmacology. 40% students

mentioned that CNS as the difficult topic to understand. Students found tutorials 52% and group discussion 39% as the methods of learning pharmacology.

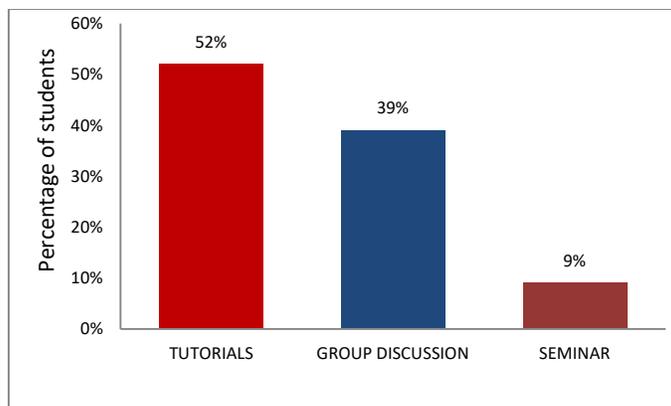


Figure 4: Learning Methods

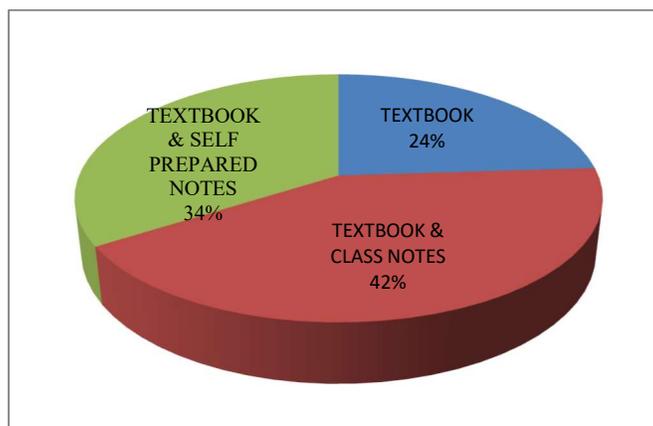


Figure 5: Preference of studying Pharmacology

It was observed that 42% of students preferred textbooks and class notes for studying followed by 34% who relied on textbooks and self prepared notes only and 24% students exclusively preferred reading from textbooks. 65% of students wanted pharmacology to be integrated with other subjects. Students opined that tutorials 69% and seminar 12% as the useful method in preparing for exams. Majority of students mentioned that emergency drugs 57% and rational use of drugs 23% should be discussed in lectures or practicals. Students found that clinical pharmacology 45% and prescription writing and problem solving exercises 26% as the most useful exercises from the future point of view.

## DISCUSSION

Students' opinion was in general as expected, but at places revealed important information. In our study blackboard teaching was preferred because it helped students in noting down points and also provided better opportunity for student teacher interaction. In other study it was observed that blackboard teaching was the only method known by students and teaching by lectures was the preferred mode of learning among students<sup>7</sup>. Few of them opted to learn from combination of blackboard and

LCD projection as mechanism of drug action was easy to understand by viewing animations. This was also noted in one study where students preferred LCD projection during teaching as it provides many elaborative diagrams, figures and certain topics can be illustrated by showing small videos<sup>7</sup>. Group discussion and tutorials were liked by majority of students as these probably encouraged them to interact among themselves and with the teacher. It also ensures participation of every student. Similar findings were noted in a study where students favour incorporation of more group discussion, tutorials and interactive classes<sup>8</sup>. It was observed that some topics like CVS, Hormones and ANS were more interesting and topics such as CNS, General pharmacology and Chemotherapy were least interesting. So methods can be introduced to make these topics more interesting and understandable. This observation was also commented by one study where students opined that CNS and general pharmacology were difficult to understand<sup>8</sup>. Students believed that learning clinical exercises during practical classes oriented them towards rational therapeutics, drug interactions and cost of treatment. This can improve their skills and attitude to prescribe drugs safely and effectively. This was projected in a study where students

opted for more clinical oriented exercises<sup>9</sup>. Integration of pharmacology with other subjects provides students a platform to understand the various diseases and its treatment simultaneously. This was seen in a study where students wanted pharmacology to be integrated with medicine, so that it provides an opportunity to get acquainted with drugs for treatment of various diseases. It reinforces the prescribing principles and future prescribers can follow good clinical practice<sup>2,10</sup>. In our study majority of students mentioned special topics like pediatric and geriatric pharmacology, drugs in pregnancy, dosage schedules and calculations should be taught in lecture classes or practicals in the form of case study or problem based learning. This was commented by some students in a study where special topics to be taught compulsorily in pharmacology<sup>4</sup>. Students opined that tutorials and seminars were very useful in preparing for university exams. This was observed in a study where students wanted tutorials, seminars and revision tests for performing better in final exams<sup>9</sup>. The implementation of suggestions obtained from students was done in our department for the better performance of students.

## CONCLUSION

Collaboration of various teaching methods if adopted will ensure in depth knowledge acquisition and improved performance in exam. Incorporation of clinically oriented teaching program will guide students to study the subject from futuristic point of view. Frequent feedback from students may help teachers plan the curriculum and improve the teaching.

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