Original Research Article

A questionnaire based study to evaluate the perception, attitude and feedback of second year undergraduate students with respect to their pharmacology teaching methodology

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ABSTRACT

Background: Pharmacology, like any other branch of medicine, is progressing by leaps and bounds. Attempts have been made all over India to make the teaching of pharmacology more interesting and relevant. The course assessment instruments like feedback may help to know about the pros and cons of teaching and assessment methods. Currently, student's feedback represents the primary means used by most programs to assess their methodology.
Methods: A questionnaire was designed and given to second-year medical students to fill in and make suggestions according to the options given and were also free to express their own opinion at various places.
Results: Majority of the students showed preference for tutorials, short answer questions and revision classes. About one third of the students felt that more group discussions should be introduced during teaching sessions. Students' interest in microteaching and problem based learning was evident from their feedbacks.
Conclusions: There is a need of conducting few microteaching sessions and more of clinical oriented problem based learning with MCQ based revisions at the end of each class in the pharmacology teaching at undergraduate level.

Keywords: Evaluation method, Pharmacology, Questionnaire, Teaching learning methodology

INTRODUCTION

Pharmacology forms the backbone of rational therapeutics and one of the most evolving branches in medical sciences. Pharmacology teaching is facing a major challenge in the medical science due to constant reformation. In India, it is introduced in the second year to the medical students with other para-clinical subjects like microbiology, pathology and forensic medicine. Learning pharmacology to choose and prescribe drugs is a major challenge encountered by students.[1]

Curriculum development is a scholarly process.[2] Generally, there is an opinion that teaching pharmacology in medical schools has failed to keep in pace with the rapid changes in medical practice. To make pharmacology teaching more innovative and interesting learning experience, efforts have been made by formulating new educational strategies to meet the educational objectives.[3]

Educational objectives can be evaluated by assessment procedures and timely feedback to achieve the learning goal.[4] It is accepted that the feedback from students serve as an effective tool in developing teaching methodology and evaluation methods in undergraduate teaching.[5]

The course assessment instruments like feedback may help to know about the pros and cons of teaching and assessment methods. Currently student feedback

represents the primary means used by most programs to assess their methodology.[6,7] Thus, present study was conducted considering all these facts and to get general feedbacks from the students with respect to:

- The students attitude towards teaching and learning pharmacology at regional institute of medical sciences, Imphal, Manipur, India
- Student's feedback on the assessment process of pharmacology
- Suggestions to improve the teaching and learning of pharmacology.

METHODS

This was a cross-sectional study which was conducted in department of pharmacology after getting the protocol approved by the institutional ethics committee (A/206/REB/Prop(SP)26/2/2017). 100 second year medical students studying in regional institute of medical sciences, Imphal, Manipur, India, were surveyed with pre-validated questionnaire designed for them. The questionnaire included questions on three main categories, i.e., teaching-learning methodology, evaluation methods and general questions. Suggestions were also asked regarding the quality of good pharmacology teachers and modification needed in pharmacology teaching methods.

RESULTS

Out of total 100 students, 54 were males and 46 were females, and the mean age of the students was 22 years.

Pharmacology was opined to be very interesting subject by 40% students, confusing by 27%, difficult and boring by 22% and 11% respectively. Many students (27%) agreed that pharmacology is their favorite subject and 44% were not sure. Most of the students found the autonomic nervous system, followed by chemotherapy, and cardiovascular system interesting and antibiotics and central nervous system difficult. However, it is satisfying to note, most of them agreed that all the topics are useful and will help them in choosing drugs rationally in their future practice.

Most of them strongly agreed the fact that problem based learning and prescriptions will be extremely useful in clinics and unless taught simultaneously with clinical conditions, it would be difficult to correlate the drugs with the disease. When asked about teaching method, 72% thought the traditional way that is chalk and board is much more better than slide shows. Students found revision classes if held at the end of the course to be the best form of teaching followed by practical demonstrations and the practical work done by the students themselves. Students found lectures to be an average or no utility. They emphasized that lectures should be more interactive. We noted that students are usually satisfied with interactive activities or teaching methods (e.g., tutorials, demonstrations, experimental pharmacology, and revision classes). While preparing for examinations, 75% of the students preferred studying pharmacology from both lecture notes and textbooks. When the students were asked about the methods to improve pharmacology teaching, the following suggestions were given (Table 1).

Table 1: Students opinion about reforms to be made in teaching pharmacology.

Suggestions	Number of students opting (%)
Introduction of group discussions and more student teacher interactions	71
Part completion tests after every system	50
Problem based learning	65
Mnemonics for drugs	10
To highlight points important for entrance exams	6
Use of audio visual aids	20

DISCUSSION

It is very important to emphasize the academic need of reviewing the teaching programs from time to time and making adequate modifications, to keep pace with progress in the subject and to cope with the requirements of the beneficiaries. The questionnaire was adapted from the previous studies that assessed feedback of second year medical students on teaching-learning methodology and evaluation methods in pharmacology.[8-10] The students' opinion poll was in general as expected, but at places revealed valuable information.

In the present study, many interesting things came into picture and students suggested many ways that could be incorporated in conventional pharmacology teaching to make the subject more interesting and understandable. Although, considering the modern trend, many students wanted the use of audio-visual aids and introduction of group discussions A survey of Italian doctors had considered the pharmacology teaching they received to be mainly theoretical and opined that more time and attention should be devoted to issues more closely related to clinical practice.[11]

According to a study conducted by Garg et al, 80% of the students preferred case studies and treatment as part of the regular teaching schedule.[12] This has been confirmed in our study as well wherein majority of students feel that problem based learning and prescriptions are extremely useful in clinics. The preference for pharmacology as a subject in post-graduation was very less probably because of inadequate knowledge of the booming careers in clinical research in pharmaceutical industries.[13]

It is the need of present hour to review the teaching programs time to time and making sufficient modifications, to keep swiftness with progress in the subject and to deal with the requirements of the beneficiaries.

CONCLUSION

In conclusion, it is important to know what our students need and whether they feel comfortable with the ever-expanding course with limited duration of time. Frequent feedbacks may help teachers plan the curriculum and improve upon the teaching and assessment methods. This study has helped in knowing the student preferences regarding pharmacology teaching and its outcomes and would be helpful in modifying undergraduate pharmacology teaching pattern.

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