



International Journal of Research in Pharmacology & Pharmacotherapeutics



ISSN Print: 2278-2648

IJRPP |Vol.8 | Issue 2 | Apr - Jun - 2019

ISSN Online: 2278-2656

Journal Home page: www.ijrpp.com

Research article

Open Access

Opinion and suggestions of undergraduate medical students on current teaching methods in pharmacology - A questionnaire based study

M. SaravanaKumar^{*2}, Abhishek R. U¹, Akshay Kumar³

¹IIIyear MBBS, Dhanalakshmi Srinivasan Medical College & Hospital, Perambalur, TN (India).

²Department of Pharmacology, Dhanalakshmi Srinivasan Medical College & Hospital, Perambalur, TN (India)

³CRRI, Dhanalakshmi Srinivasan Medical College & Hospital, Perambalur, TN (India).

*Corresponding author: Dr. M. SaravanaKumar

Email: sharavankumar1923@yahoo.co.in

ABSTRACT

Background

Pharmacology, like any other branch of medicine, is progressing by leaps and bounds. It is generally agreed that reviewing the teaching program at regular intervals, and modifications in the methodologies of imparting basic knowledge about drugs and drug therapies is a must. Medical students are in direct contact with the health of patients, it is very important to investigate the factors affecting their learning. It has been observed that these professors, in fact, lack the necessary innovations in medical education which will cause that future physician's needs are not safeguarded properly and they will encounter with serious problems at the time of offering service to patients.

It was felt that the student's feedback would reveal

- Whether the so-called reforms are acceptable to them.
- Their opinion for the betterment of teaching/learning the subject.
- Drawbacks in our curriculum.
- Difficulties present at the student side
- Drawbacks present at the teachers side

Methods

A questionnaire was designed and given to Second-year medical students. They have to fill in and make suggestions according to the options given. Medical students just appeared for II MBBS examination (waiting for the results) are the participants in the study. A questionnaire consisting of 20 questions with 3-8 options were given to each of them and asked to tick the option/ options which they feel was/were the best. Students will be allowed to offer their own suggestions for certain important items in addition to the available options. The completed questionnaires were collected by the postgraduate students. Students were instructed not to reveal their identity in the questionnaire.

Results

Most traditional teaching methods lack the necessary efficacy. The reason is that they are mostly theory-based and do not care about performance. 54% students wanted relevant movie clips. 67% of the students preferred studying pharmacology from textbooks alone. 96% of students can tolerate the lectures for nearly 40 minutes only. 81% of students are in favour of teaching pharmacology till they reach CRRI.

Conclusion

The top reform they suggested is to include movie clips relevant to the topic. Preference of studying pharmacology by text books only; very few prefer lecture notes. Test should be conducted every month and the duration of a lecture should not go beyond 40 minutes. Importantly, pharmacology should be taught even in III MBBS and during internship as an orientation review. A good number of students suggested that case studies have to be included as a part of regular teaching.

Keywords: Student's suggestions, Questionnaire, Reforms.

INTRODUCTION

Pharmacology, like any other branch of medicine, is progressing by leaps and bounds. Consequently, reforms in undergraduate teaching are the need of the hour. It is generally agreed that reviewing the teaching program at regular intervals and modifications in the 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 to make the teaching of pharmacology more interesting and relevant [1, 2, 3, 4].

There is very little documentation of the effectiveness of various active learning strategies, and often faculty are reluctant to incorporate such new strategies into the teaching curriculum [5]. Medical students are in direct contact with the health of patients, it is very important to investigate the factors affecting their learning. More attention should be attracted to professor's strategies that are one of the most important factors in learning. It has been observed that these professors, in fact, lack the necessary innovations in medical education which will cause that future physician's needs are not safeguarded properly and they will encounter with serious problems at the time of offering service to patients.

It was felt that the student's feedback would reveal

- a. Whether the so-called reforms are acceptable to them.
- b. Their opinion for the betterment of teaching/learning the subject.
- c. Drawbacks in our curriculum.

- d. Difficulties present at the student side
- e. Drawbacks present at the teachers side

Understanding current perceptions and opinions of medical students regarding learning pharmacology may prove useful in improving the teaching of this discipline [6]. Traditionally, the teaching of pharmacology in medical schools follows a discipline-based and lecture-based approach with a heavy emphasis on acquiring factual knowledge concerning drugs [7].

Student's opinion may help the teachers to change their way of teaching. This may improve the student's interest over the subject. This study may also bring the changes in the curriculum of the subject for the betterment of the students.

METHODS

A questionnaire was designed and given to Second-year medical students. They have to fill in and make suggestions according to the options given. Medical students just appeared for II MBBS examination, (waiting for the results) are the participants in the study. A questionnaire consisting of 20 questions with 3–8 options were given to each of them and asked to tick the option/ options which they feel was/were the best. Students will be allowed to offer their own suggestions for certain important items in addition to the available options [8]. The completed questionnaires were collected by the postgraduate students. Students were instructed not to reveal their identity in the questionnaire.

Study Design

A Questionnaire based study.

Study area

Dhanalakshmi Srinivasan Medical College and Hospital.

Study Population

100 Students.

Study period

2 months.

QUESTIONNAIRE

OPINION & SUGGESTIONS

- 1. Did you know about Pharmacology before it was introduced to you in 2nd MBBS?**
a) No b) Somewhat c) Yes, many things
- 2. What opinion did you gather from your seniors regarding Pharmacology?**
a) Useful but boring.
b) Useful and interesting. c) Useless and cramming and important.
d) Interesting but cramming. e) Very useful, practical.
- 3. Which topics did you find interesting?**
a) General Pharmacology b) Respiratory System c) Cardiovascular system
d) Gastrointestinal tract e) Autonomic Nervous system f) Autacoids
g) Chemotherapy h) Endocrines i) Central Nervous System j) Miscellaneous
k) All (if others -Specify): -----
- 4. Which topics do you think will be useful in future?**
a) General Pharmacology b) Respiratory System c) Cardiovascular system
d) Gastrointestinal tract e) Autonomic Nervous system f) Chemotherapy
g) Endocrines h) Miscellaneous. i) Central Nervous System j) autacoids
k) all (if others - Specify): -----
- 5. Which of the following was most interesting?**
a) Lectures b) Clinical Pharmacology c) Practical
d) Demonstrations e) Experimental Pharmacology f) Tutorials
g) Students Seminars h) integrated teaching
- 6. Which of these do you think is of no use?**
a) Lectures b) Clinical Pharmacology c) Practicals d) Demonstrations
e) Experimental Pharmacology f) Tutorials g) Student Seminars
- 7. Would you like any of the following reforms to be made?**
a) Decrease the number of lectures b) Increase the number of lectures
c) Include more Student seminars d) Include more Clinical Pharmacology
e) Relevant movie clips related to the topic f) Make use of audio visual aids
g) Crossword puzzles in GP /ANS h) Puzzles in pharmacology
i) Problem based learning j) Miscellaneous. (Specify): -----
- 8. Would you like the following to be added as a part of regular teaching?**
a) Student Seminars b) Case Studies and Treatment c) Group discussions
d) Clinical Pharmacology Sessions e) Any other (specify): _____
- 9. From where did you prefer studying Pharmacology?**
a) Lecture notes only
b) Text books only as I don't take down notes
c) Lecture notes and Text books combined
d) Text books only as I understand little in the class
e) Text books only as these are more interesting
f) Lecture notes of certain staff members only, irrespective of topics taken
g) Lecture notes of certain topics, irrespective of staff member

- h) Own notes after referring lecture notes, text books, seniors' notes, etc.
i) Educational apps
j) e-book
10. **What is your pattern of study in Pharmacology?**
a) Regular because of interest in it
b) Regular because of tests/ viva/ tutorials c) Regular for gaining more knowledge
d) Only during tutorials/ tests / exams e) Shall study only for final exams.
11. **How frequently you need break in between lectures?**
a) Every 2 lectures b) every lecture
12. **How long the lecture can be (tolerated)?**
a) one hour b) 45 minutes c) less than 40 minutes d) more than an hour
13. **How is your grasping power?**
a) Good b) Only cramming helps c) Can never learn.
14. **How do you rate Pharmacology lectures?**
a) Always boring b) Some interesting, some boring
c) Most interesting, some boring d) Always interesting e) Most boring, few interesting.
15. **What reforms would you like in lectures?**
a) More clinically oriented b) Only important topics to be covered
c) Use of OHP d) Good as they are e) Others (specify):-----
16. **How do you rate it overall?**
a) Useless altogether b) Only theoretical, less practical subjects for practical use c) At par
d) One of the few most important e) Most important, above all subjects
17. **Do you think the subject should be taught in or after III MBBS?**
a) Yes, a few lectures on drug therapy in III MBBS
b) No, enough of Pharmacology
c) Orientation course of few days during Internship
d) Yes, the subject should be taught in entire III year
e) Only a few lectures on new drugs to be taken in III MBBS
18. **Well before the new pharmacology syllabus given by your university, what are all the things already made by pharmacology department of your college?**
a) Using mannequins in practicals b) research methodology classes (protocol writing)
c) Integrated teaching d) giving short projects on 'p' drugs e) herbal garden
f) lectures on new topics like antibiotic policy g) All (if few, specify.-----)
19. **Which type of animal experiments you like?**
a) Simulations/graphical b) direct animal studies
20. **Pharmacology is a dry subject:** Do you still stick on to that? (Yes / No).

INCLUSION CRITERIA

2nd year MBBS students, just finished their theory and practical exams and those who are all willing to participate.

EXCLUSION CRITERIA

Co-investigator & those who are not willing to participate.

RESULTS AND DISCUSSION

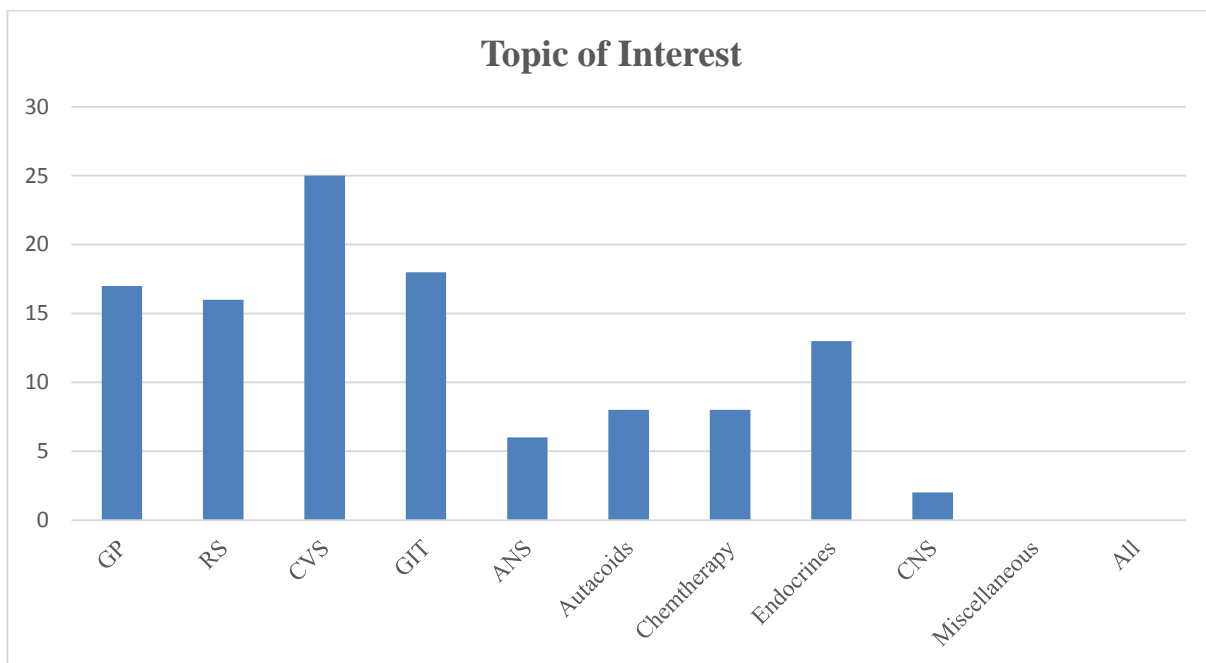
Most traditional teaching methods lack the necessary efficacy. The reason is that they are mostly theory-based and do not care about performance. As many as 71% had a little knowledge about pharmacology before they came to second year. Most of the students found the cardiovascular system followed by GIT, General Pharmacology and Respiratory system, interesting. Interestingly, 25% students showed interest in student's seminar but 45% of students said that student's seminar was of no use.

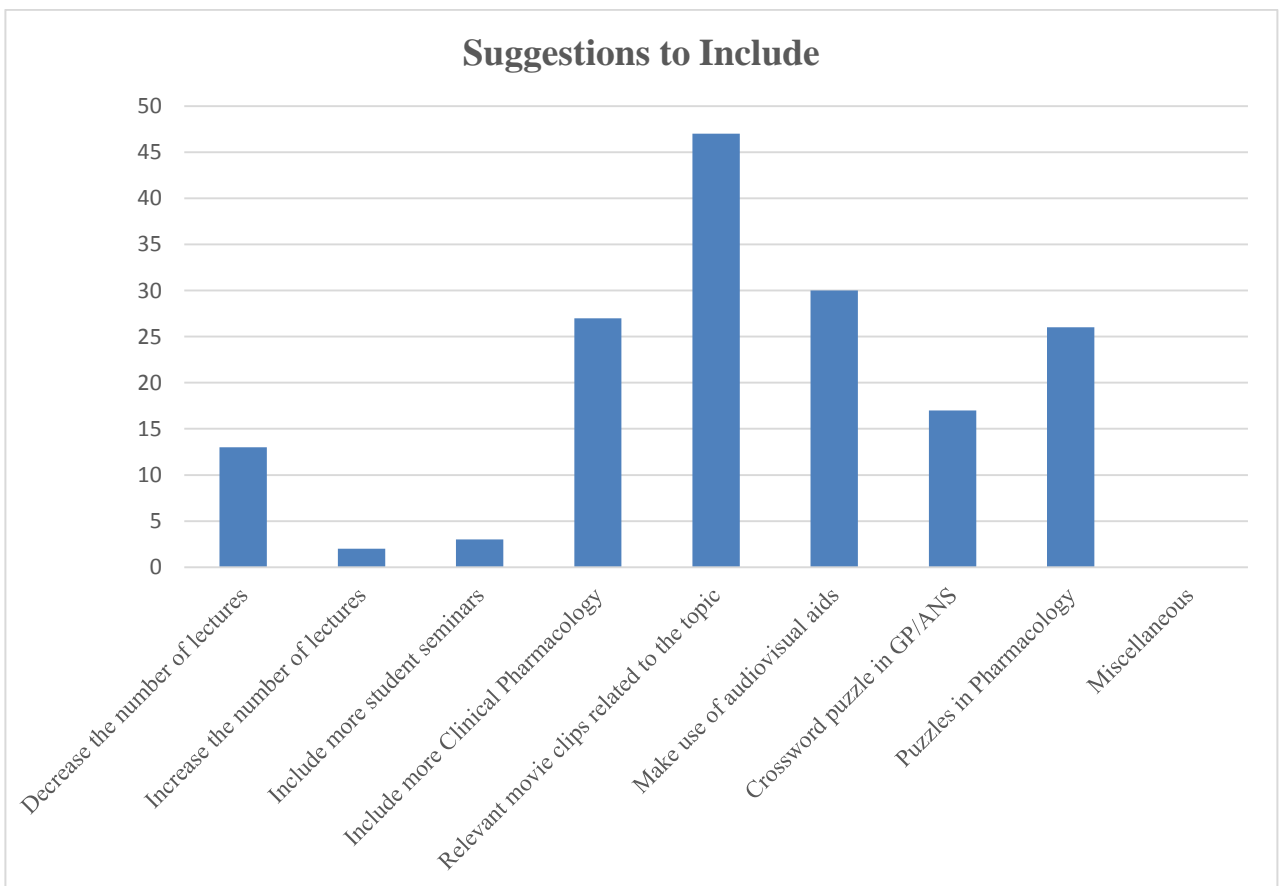
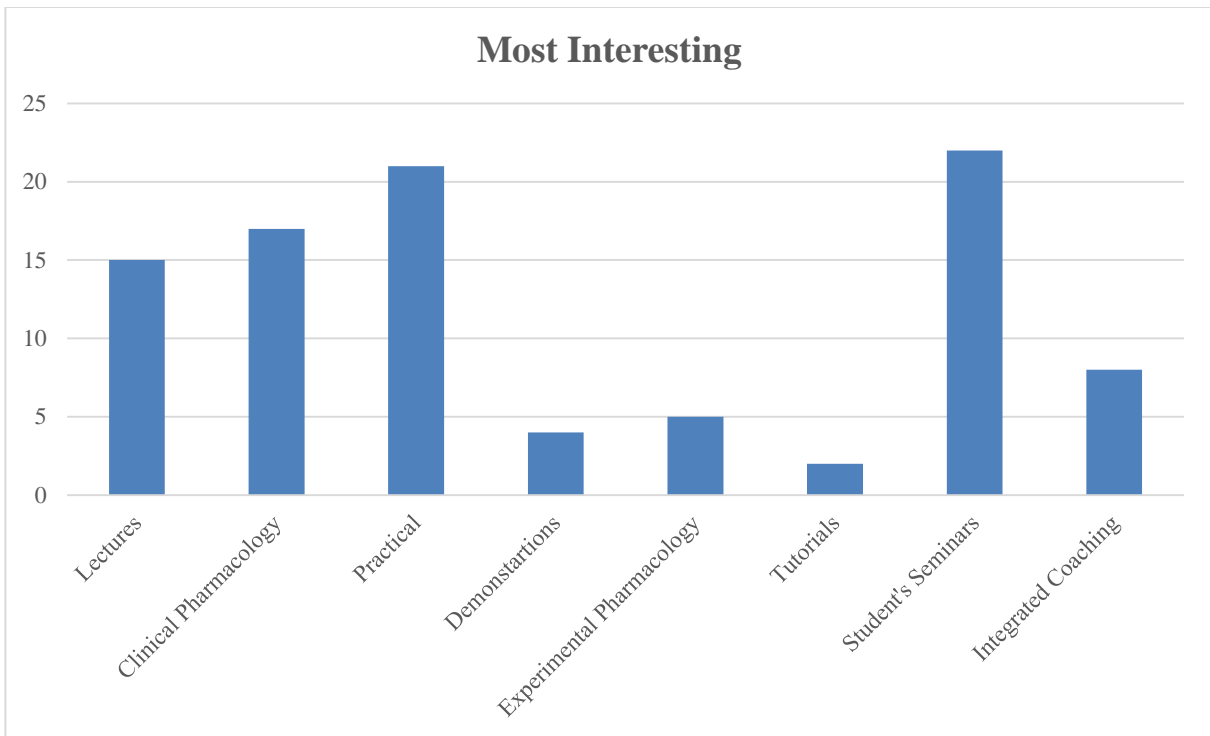
About 54% students wanted relevant movie clips, 34% of students wanted teachers to make use of audio-visual aids and 29% wanted puzzles next to movie clips related to topics to be introduced and 31% of students are in favour of clinical pharmacology to be included in the teaching program.

Not surprisingly, 67% of the students preferred studying pharmacology from textbooks alone and 26% of them preferred both lecture notes and text books. Mostly 54% of the students prefer class test every month than as fortnightly (26%). 96% of students can tolerate the lectures for nearly 40 minutes only. Only 3% of students told that they can tolerate for an hour and students said that nobody can tolerate a lecture goes beyond one hour.

Next to Herbal Garden (32%) nearly half of the students (49%) apart from routine pharmacology theory, likes lectures on protocol writing which is believed to be useful for them especially towards their STS projects includes understanding the clinical trials. 57 % of students. Preferred practical demonstrations in live animals than the animal simulation (42%). Most of the students (75%) suggest that the lectures should be more clinically oriented. 81% of students are in favour of teaching pharmacology till they reach CRRI.

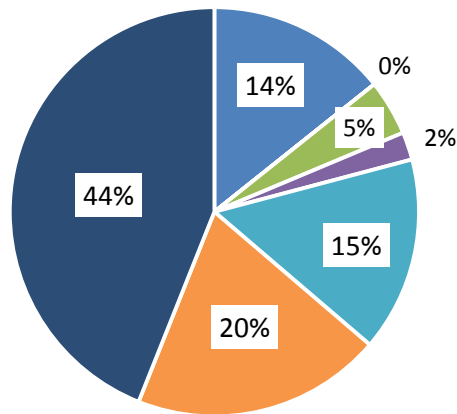
It is just a matter of time before we all put our heads together and set the ball rolling for a revised pattern of teaching pharmacology which is learner-centred and more clinically oriented.





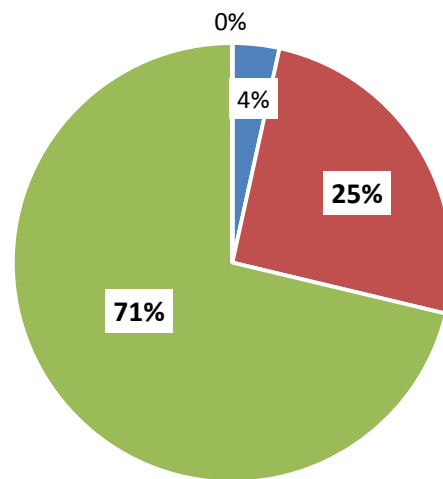
Order of Preference

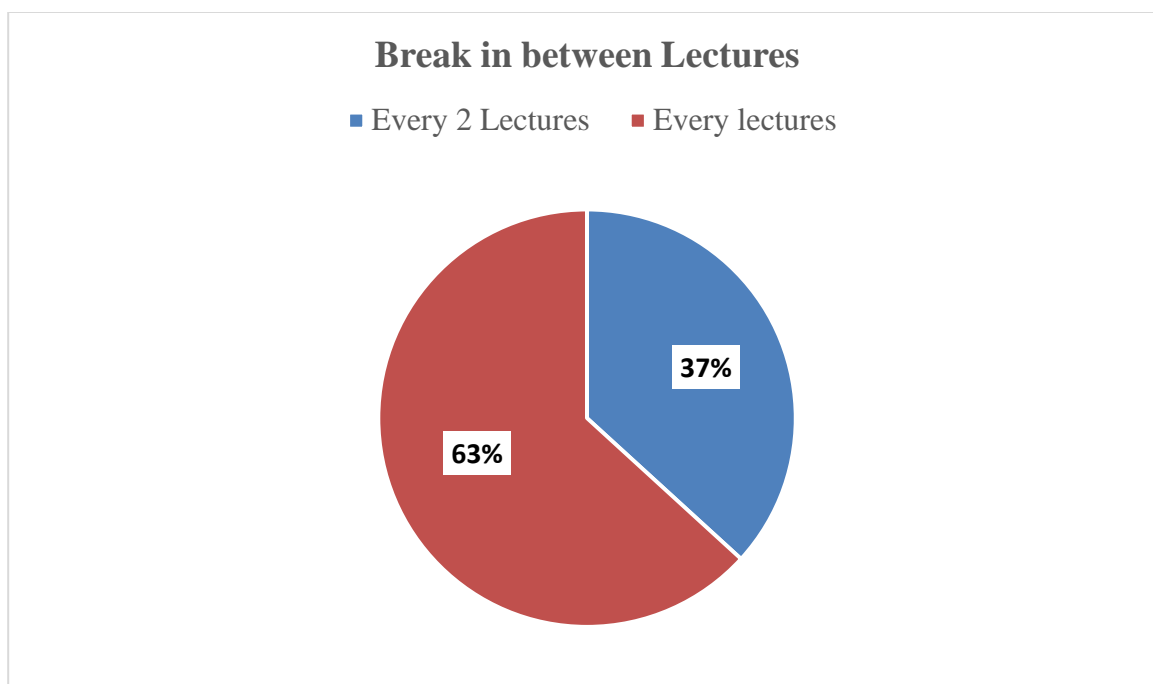
- Lectures
- Practical
- Experimental Pharmacology
- Student Seminars
- Clinical Pharmacology
- Demonstration
- Tutorials



Duration of Lectures-Tolerance

- One hour
- 45 minutes
- Less than 40 minutes
- More than an hour





CONCLUSION

The top reform they suggested is to include movie clips relevant to the topic. Preference of studying pharmacology by text books only; very few prefer lecture notes. Test should be conducted every month and the duration of a lecture should not go beyond 40 minutes. Importantly, pharmacology should be taught even in III MBBS and during internship as an orientation review. A good number of students suggested that case studies have to be included as a part of regular teaching.

Acknowledgement

I would like to acknowledge with gratitude and support of my parents and my professor Dr. M. Saravana Kumar, Department of Pharmacology. I would like to thank CRRIs of our college Dr.Akshaykumar, Dr.Moorthi, Dr. Naveen, Dr.Vinobha, Dr.Karthikeyaselvi for collecting data. I would like to thank my friends A. Daphy Andrea, E. Elakiya, R. Nivetha, A. Mohammed Ayyub who provided their constant support for me always.

REFERENCE

- [1]. Bapna JS. Experiences in teaching rationale drug use. *Indian J Pharmacol* 25, 1993, 2-4.
- [2]. Kuruvilla A, Ernest K. Patient oriented problem solving system of teaching pharmacology. *Indian J Pharmacol* 26, 1994, 185-7.
- [3]. World health organisation, national drug policy and rational drug use. A model curriculum (Draft) DAP/. Action programme on essential drugs. Geneva: World Health Organisation, 85, 1985, 6.
- [4]. Medical council of India regulation on graduate medical education. New Delhi: Medical Council of India; 1997.
- [5]. Cross PK. Teaching for learning. *Am. Assoc Higher Educ Bull* 39, 1987, 3-7.
- [6]. Bhosale UA, Yegnanarayan R, Yadav GE. Attitude, perception and feedback of second year medical students on teaching learning methodology and evaluation methods in pharmacology: A questionnaire-based study. *Niger Med J*, 54, 2013, 33.
- [7]. Chavda N, Yadav P, Chaudhari M, Kantharia N. Second year student's feedback on teaching methodology and evaluation methods in pharmacology. *Nation J Physiol Pharm Pharmacol*, 1, 2011, 23-31.
- [8]. Rao SG, Karanth S, Kumar V, Udupa AL, Bairy KL, Devi A. A scheme of practical examination in pharmacology for evaluating skills involved in problem solving. *Indian J Pharmacol* 24, 1992, 145-6.