

**STUDENTS' PREFERENCE OF AUDIO-VISUAL AIDS IN VARIOUS ASPECTS OF  
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**ABSTRACT**

**Introduction:** Teaching in pharmacology can be made interesting by the use of Audio visual aids. This study was done to know the preference of students for these teaching tools in various aspects of learning so that the students can derive maximum benefit from the lectures. **Material and Methods:** Eighty students from second professional MBBS participated in a cross sectional questionnaire based study. They were asked to select an option of audio visual aid for various aspects of learning like for understanding the topic, diagrams, flow charts, notes taking etc. **Results:** Majority of students opted for Chalk and talk as the best method for understanding a topic in pharmacology (45%) whereas power point was preferred as the most effective tool for understanding diagrams (60%), flow charts (55%) and for taking notes (68.75%). **Conclusion:** Our study demonstrates that lectures delivered by using a combination of audio visual aids specially the classical Chalk and talk method for understanding a particular topic and Powerpoint presentations for diagrams, flow charts and notes taking seems to be more convincing for the students.

**KEY WORDS:** Medical education, teaching methods, pharmacology, learning.

**INTRODUCTION**

Pharmacology is a rapidly changing and ever growing medical science which trains a medical student to use drugs rationally in patient care. Our aim of teaching pharmacology is to impart basic knowledge of the drugs and capability of selecting appropriate ones for a particular disease.<sup>[1]</sup> The major difficulty faced by the students is to understand and memorize the increasing knowledge of drugs in this field. The responsibility lies on the shoulders of the teachers to make students understand the drug effects in such a way that they find the subject interesting and at the same time retain this knowledge when they treat patients. Moreover, there are various other challenges faced by the teachers like differences in learners, differences in their perception and interpretation, variation in the content taught and differences across learning settings. Undergraduate training in pharmacology has been developing with the use of new methods of teaching including use of audiovisual aids, group discussion, role plays, clinical pharmacology studies, and computer assisted learning. The most common methods used for teaching pharmacology in the lecture classes include lectures

using overhead projector (OHP) and transparencies, PowerPoint presentations, and traditional 'chalk and talk' method.<sup>[2]</sup> Audiovisual aids (like PowerPoint (PPT)) provide a clear understanding of the topic due to its colourful pictorial display in the form of various innovative styles like flow charts, diagrams, animations etc. It is more time saving as it covers a lot of information in short period of time and also it is easier to go back to the important slides for revision of the students. On the other hand, chalk and board is a very basic, traditional yet effective and more interactive form of teaching technique in which the teacher tries to give basic information on the topic and can modify or simplify in order to cater to the most average students of the class. The disadvantage of PPT is that there is tendency to overload the slides making them difficult to understand and of chalk board is that a lot of time is consumed writing on the board and completing the topic. The best way to assess and improve the teaching methodology is by knowing the student's view on the use of these teaching tools. So, in a view to improvise & modify our teaching methodology, we conducted this study to evaluate the effectiveness of currently used

audiovisual aids in various aspects of learning in pharmacology lecture classes for the undergraduates.

## MATERIAL AND METHODS

It is a cross sectional questionnaire based study conducted in the Department of Pharmacology, Sri Aurobindo Institute of Medical Sciences, Indore in the month of August 2017. Second professional MBBS students were included in the study (n=80). A semi structured questionnaire in tabular form was prepared and distributed to all the students present in the class after taking informed consent from them. They were asked to select a single option of audiovisual aid for various aspects of learning highlighted in the table,

which they felt was the best. Students were allowed to give their own suggestions or remarks wherever necessary. Students were asked not to reveal their identity in the questionnaire. The completed questionnaires were collected and assessed.

## RESULTS

Table I. shows the opinion of students about the use of audiovisual aids for various aspects of learning. For understanding a particular topic in pharmacology, majority of students preferred blackboard (45%) over combination of aids (35%). Power point presentation was preferred by the students for understanding diagrams (60%), flow charts (55%) and for taking notes (68.75%).

Aspects under study	Chalk and talk %	Overhead projector%	Powerpoint%	Combination %
Understanding of topic	45	2.5	18.75	35
Diagrams	25	1.25	60	13.75
Flow charts	21.25	16.25	55	7.5
Notes taking	18.75	8.75	68.75	3.75

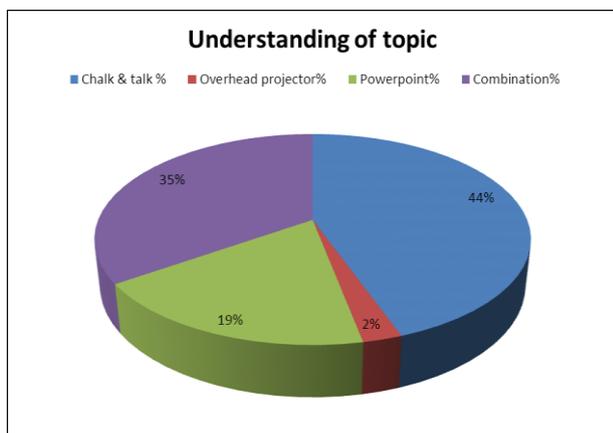


Figure-1.

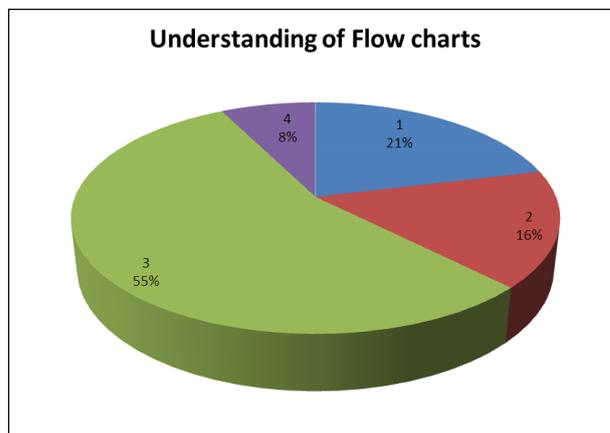


Figure-3.

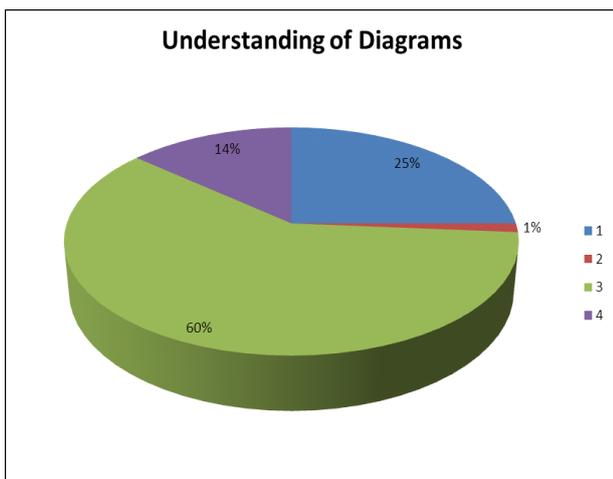


Figure-2.

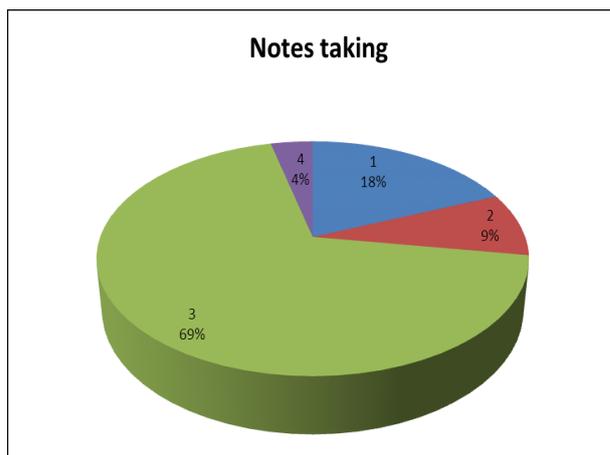


Figure-4.

## DISCUSSION

Our study revealed that majority of students (45%) opted for 'chalk & talk' method as the most impressive and relevant aid for understanding a particular topic in pharmacology. In the present study, it was found that the main reason for preferring Chalk board by the students for understanding a particular topic is that knowledge is disclosed gradually and in a sequential manner which is easy to retain for the students. Also it becomes easy to memorize the name of a particular drug when it is written & highlighted by the teacher on the blackboard. The teacher is able to maintain an eye to eye contact with students emphasizing on the key points of the topic so that lecture becomes more humanized and impressive. In a study done by Seth *et al.*, it was also found that the performance of students taught with chalk & board was better as compared to those with TOHP and Powerpoint.<sup>[3]</sup>

This finding is contradictory to similar study done by Kumar *et al.*<sup>[4]</sup> in which majority of students preferred combination of aids over a single aid alone. The probable reason of disparity is the large sample size and inclusion of generalized opinion of preference for all medical subjects and not specially for pharmacology.

Moreover, majority of students preferred Power point presentation for better understanding of diagrams, flow charts and for taking notes. This finding is consistent with the study done by Kumar *et al.* According to the students, with Power point presentation diagrams are more clear and catchy and grabs the attention and interest of the students. Also understanding of flow charts and notes taking is better and easier with Power point because there are least chances of missing any points.

Overhead projector with transparencies was least preferred for understanding the topic and for diagrams because of poor handwriting, illumination and inclusion of too many points on a single transparency, making it very crowded and unclear. Students opined that transparencies should be type written and legible.

## CONCLUSION

Pharmacology is a basic science as well as very important subject from clinical point of view. It can be very well illustrated and made interesting by optimum use of audio-visual aids. Our study supported **Chalk and talk** as the most effective method for understanding a particular topic in pharmacology. Chalk and talk method should be supplemented by the use of Power point for better perception of diagrams, flow charts and for taking notes. TOHP can be made more effective if content in the transparencies is clear, legible, relevant and to the point. Medical faculty should be skilled and well trained for proper and optimum utilization of these teaching learning media for better understanding of subject by the students.

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## REFERENCES

1. Tirumalasetty J, Prakash. M, Shankar. J. Evaluation of student's Opinion regarding pharmacology teaching in Mamata Medical College, Dec 2013; 3(12).
2. Amane H, Kaore S, Vasvani S. Evaluation of existing teaching methods used for lecture classes in Pharmacology Int J Pharm Bio Sci, 2013 Jan; 4(1): 193-1.
3. Vikas Seth, Prerna Upadhyaya<sup>1</sup>, Mushtaq Ahmad, and Virendra Kumar., Impact Of Various Lecture Delivery Methods In Pharmacology. EXCLI Journal, 2010; 9: 96-101.
4. Kumar A, Singh R, Mohan L, Kumar MK. Student's views on audio visual aids used during didactic lectures in a medical college. Asian J Med Sci, 2013; 4: 36-40.