



EFFECTIVENESS OF AUDIOVISUAL AIDS IN BEDSIDE CLINICS AMONG MEDICAL STUDENTS

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ABSTRACT

Background & Objectives: Many students find ophthalmology clinics uninteresting and cannot understand and appreciate clinical findings. Therefore, they have poor clinical acumen, perform poorly in exams and don't wish to pursue this field further for postgraduation. Modification of clinical training program using audio-visual aids in addition to conventional bedside teaching may stimulate students' interest in the field, enhance their understanding of subject and improve their performance in exams. This study aims to analyse effect of audio-visual aids in conjunction with bedside teaching on the learning process and experience of undergraduate students attending ophthalmology clinics. **Methods:** A cross-sectional study was conducted where 69th term MBBS students attending ophthalmology clinical postings were randomly divided into two groups. For one group ophthalmology clinics was delivered by conventional bedside teaching while for the other it was supplemented with audio-visual aids. At the end of one month both groups were assessed by means of OSCE and viva voce examinations. Students were given feedback forms and asked to score the teaching program on scales of 1 to 10 (1-poor, 10- excellent) on basis of criteria such as usefulness and content relevance. **Results:** There was no statistically significant difference in mean internal assessment scores. Bedside teaching with audio visual aids had statistically significant higher overall mean score of positive feedback. **Conclusion:** This study suggests though bedside teaching is quite effective on, the use of appropriate audio-visual aids as a supplement and not as a substitute to conventional bedside teaching could enhance the students learning experience.

KEYWORDS:

Audio-visual aids, Clinical posting, Conventional teaching, Ophthalmology clinics, Undergraduate students.

BACKGROUND

The infrastructure, clinical material and patient-student ratio is inadequate to support large batches of undergraduate medical students. Teachers find themselves multitasking and students often lack motivation and enthusiasm. Many students find ophthalmology clinics uninteresting and do not appreciate clinical findings well. As a result, they have poor clinical acumen, perform poorly in clinical exams and do not wish to pursue this field further for postgraduate studies. In this scenario, modification of clinical training programs by the use of audio-visual aids in addition to conventional bedside teaching may stimulate interest amongst students and provide a better understanding of the subject. [1] The present study aims to analyse the effect of using audio-visual aids in conjunction with bedside teaching, on the learning process and experience of undergraduate students attending ophthalmology clinics.

AIMS AND OBJECTIVES

The purpose of this study is to compare the effectiveness of audio-visual aids in bedside clinics with conventional teaching

- 1) To compare the clinical internal assessment scores of undergraduate medical students exposed to traditional bedside clinics versus those exposed to bedside clinics in conjunction with audio-visual aids
- 2) To compare the qualitative feedback given by the two groups of students in terms of their attitudes about the teaching program, their perceived confidence and interest in the field

MATERIALS AND METHODS

This cross-sectional study was conducted in the Department of Ophthalmology, Vydehi Institute of Medical Sciences and Research Centre, Bangalore, India in the year 2018 between the months of May and July. The study was consented to by 69 6 term MBBS undergraduate medical students attending ophthalmology clinical postings. The clinical postings were delivered to two different groups in two different places at different times; the students were randomly divided into two groups, Group A and Group B based on roll numbers. For Group A (serial numbers 1-33), ophthalmology clinics was delivered by conventional bedside teaching. To the other group, Group B (serial numbers 34-69) ophthalmology clinics was delivered by conventional bedside teaching with supplemental audio-visual aids. At the end of one month of clinical training both groups were assessed by means of OSCE and viva voce examination. The students were given feedback forms and were asked to score the teaching program on a scale of 1 to 10 (1-poor, 10- excellent) on the basis of criteria such as usefulness and content relevance. [2] The institutional review board gave approval for this study.

STUDY DESIGN- Cross sectional study (observational study). Quasi experimental post-test only design

Batch of 30 students are divided into 15 students by random sampling, in each group A (conventional bedside teaching) and B (conventional bedside clinics with audio-visual aids use). Total of 30 students in group A and 30 students in group B will be assessed. The students who have not undergone the audio-visual aids teaching will undergo cross over teaching after the evaluation.

STATISTICAL ANALYSIS OR THEMATIC ANALYSIS- Independent Sample T test

INCLUSION CRITERIA- 6 term MBBS students attending Ophthalmology clinical postings in Vydehi Institute of Medical Sciences and Research Centre, Bangalore.

EXCLUSION CRITERIA- Any student not in 6 term MBBS and not attending Ophthalmology clinical postings was excluded from the study.

RESULTS AND DISCUSSION

The qualitative feedback given by the students of Group A whose ophthalmology clinics was delivered by conventional bedside teaching found the sessions interactive and felt that demonstration on patients, put the subject into perspective and enhanced their interest in the field. These students also felt that the audio-visual supplements would be helpful to explain surgical procedures and uncommon ocular manifestations. On the other hand, students of Group B whose ophthalmology clinics were delivered by conventional bedside teaching with audio-visual aids felt that the audio-visual aids strengthened their concepts and helped them gain a better understanding of ocular manifestations and surgical procedures. They also felt that these sessions could have been more interactive and that the quality of the audio-visual aids could be improved. There was no statistically significant difference in mean internal assessment scores. Bedside teaching with audio visual aids had statistically significant higher overall mean score of positive feedback. Bedside teaching with audio-visual aids had significantly higher mean scores in terms of teaching and learning method effectiveness, but not in terms of perceived usefulness and content relevance. The student's confidence in the subject was equivocal in both groups. There was no statistically significant difference in the number of students considering ophthalmology for higher studies in the modified method. [3]

CONCLUSION

This study suggests that though bedside teaching maybe quite effective on its own, the use of appropriate audio-visual aids as a supplement and not as a substitute to conventional bedside teaching could enhance the students learning experience. [4,5]

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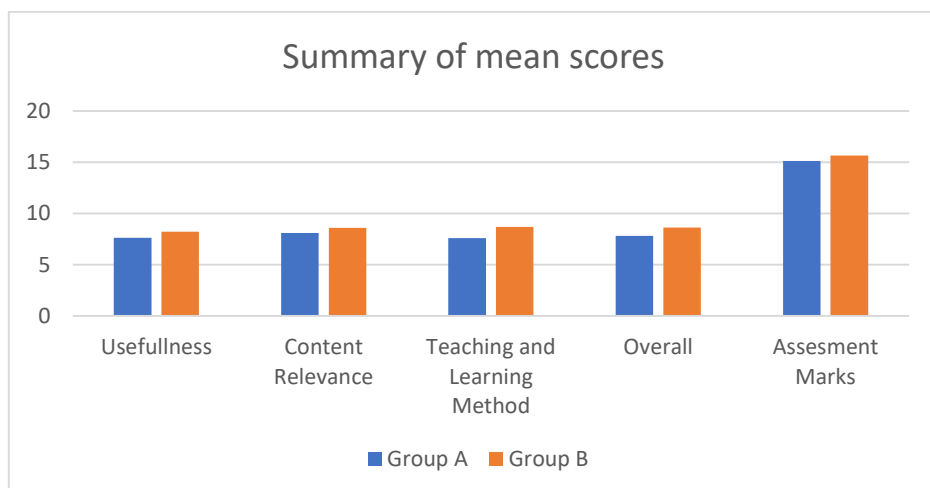


Table (a) The summary of mean scores of the students after attending classes with audio-visual aids and conventional bedside teaching.

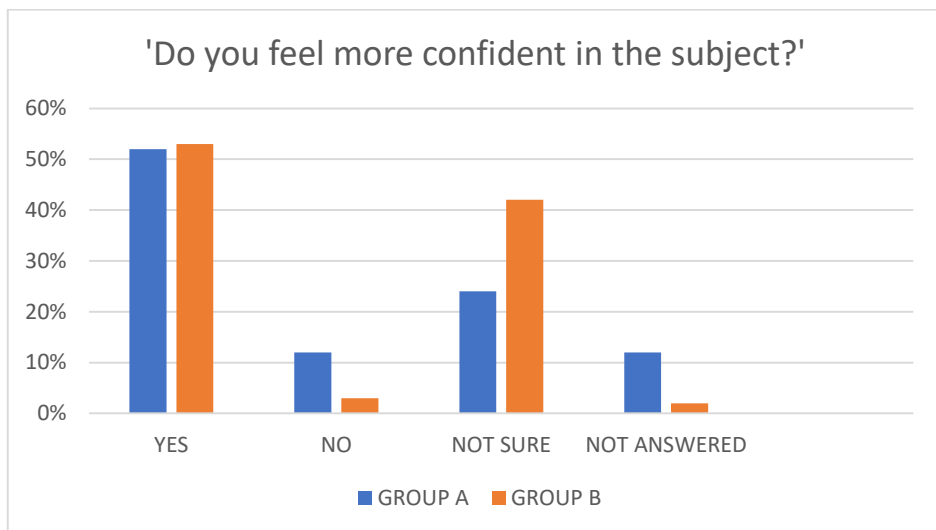


Table (b) Table showing the percentage of students who felt more confident in the subject after classes using audio-visual aids.

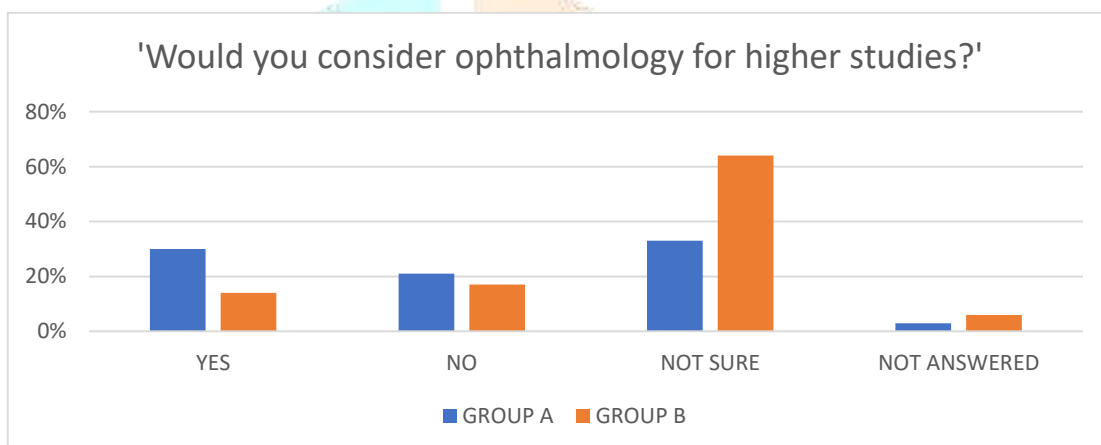


Table (c) The percentage of students who considered taking Ophthalmology for higher studies after classes using audio-visual aids.