ORIGINAL ARTICLE

Video-assisted teaching versus traditional didactic lecture in undergraduate psychiatry teaching

Mona Nongmeikapam[1,2], N. Sarala[2,3], Mohan Reddy[1,2], Ravishankar S[4]
Departments of [1]Psychiatry, [3]Pharmacology and [4]Community Medicine, Sri Devaraj Urs Medical College, [2]University Department of Medical Education (UDOME), SDUAHER, Kolar, Karnataka, India

ABSTRACT

Objectives: The objectives of this study are as follows: (1) To compare video-assisted teaching versus didactic lectures using the pretest and posttest. (2) To compare the feedback on the two teaching methods using a teaching feedback form.
Materials and Methods: Two consecutive batches of 22 and 20 students, respectively, of the 3rd year medical undergraduate students posted to the department of psychiatry were included for the study. The first batch underwent video-assisted schizophrenia class and didactic lecture in bipolar disorder (BPAD). A crossover of the topics was done. The students underwent pretest and posttest for each topic using the same set of topic-specific validated multiple choice questions and also filled a prevalidated teaching feedback form for each class.
Results: Difference between pre- and post-test scores after all classes was significant, indicating effective gain of knowledge by both methods. Feedback analysis indicated that most students favored video-assisted teaching (total mean feedback score – 61.99) compared to the conventional method (total mean feedback score – 60.58). Increase in mean feedback scores indicates the students' preference.
Conclusion: Both didactic and video-assisted lectures were effective in terms of knowledge gained and students' feedback. Using video assistance as a complement to lectures and not to replace the traditional methods is the way forward.

Key words: Blended learning, undergraduate psychiatry, video-assisted lecture

INTRODUCTION

The Medical Council of India states that an Indian Medical Graduate should possess the ability to recognize and manage common psychological and psychiatric disorders in a primary care setting and refer appropriately.[1] However, the time allocated in the medical undergraduate (UG) curriculum is insufficient to teach them all the nuances of psychiatry. Hence, there is a need to explore more judicious methods to teach psychiatry in the limited time frame allocated in the UG medical course. Video-assisted teaching modules may help in several ways, including showing rare cases, emphasizing salient points, cutting time wastage, and avoiding patient inconveniences in various spectrum of psychiatry.[2-4] Using videos in UG medical teaching has been known to promote observational skills and clinical reasoning and is one of the most preferred methods of blended learning.[5,6] Blended learning is defined as

Address for correspondence: Dr. Mona Nongmeikapam, Department of Psychiatry, Sri Devaraj Urs Medical College, Tamaka, Kolar - 563 101, Karnataka, India.
E-mail: mona_nk1@yahoo.co.in

Access this article online

Website: www.indianjpsychiatry.org

DOI: 10.4103/psychiatry.IndianJPsychiatry_265_18

Quick Response Code

How to cite this article: Nongmeikapam M, Sarala N, Reddy M, Ravishankar S. Video-assisted teaching versus traditional didactic lecture in undergraduate psychiatry teaching. Indian J Psychiatry 2019;61:376-9.

the combination of traditional face-to-face learning and asynchronous or synchronous e-learning.[7,8] Videos not only impart knowledge but also can provide public awareness, prove to be a tool for self-study, and even be used as a modality to provide feedback. In this era of e-learning, using videos to complement traditional classroom learning is effective rather than passively reviewing e-learning material.[9-11]

With these objectives in mind, we compared the video-assisted teaching versus didactic lectures by the pre- and post-test examination and student feedback on the two teaching methods in our study.

MATERIALS AND METHODS

Objectives

The objectives of this study are

1. To compare video-assisted teaching versus didactic lectures using the pretest and posttest
2. To compare the feedback on the two teaching methods using a teaching feedback form.

Study design

It is an interventional comparative qualitative and quantitative study.

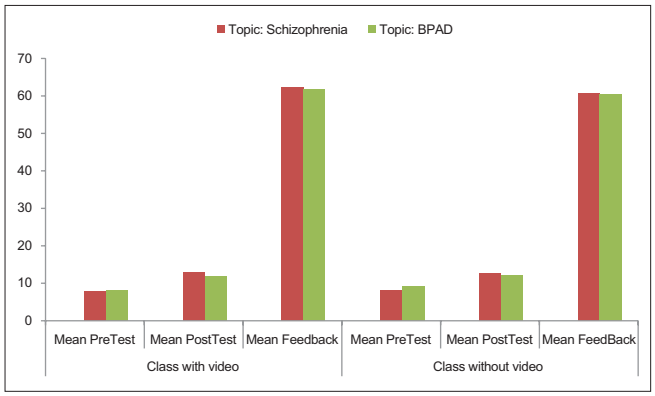

Figure 1: Comparative pretest, posttest, and mean feedback scores of Group 1 and 2

Setting

The study was conducted in the UG psychiatry tutorial classes of Sri Devaraj Urs Medical College, Kolar, Karnataka, India. The protocol was approved by the Institutional Ethics Committee No.DMC/KLR/IEC/22/2017-18. Participants who were willing to give written informed consent were included in the study. The medical students are posted to psychiatry for 15 days of ward postings in their 2nd year, 15 days of tutorials in their 3rd year, and theory classes in their final year. For tutorials in their 3rd year of medical school, a group of 20–25 students will be posted according to their roll numbers.

Selection of participants

The participants were chosen using convenient sampling. Two consecutive batches of the 3rd year medical students who were posted to the department of psychiatry for a duration of 15 days each were taken for the study and will

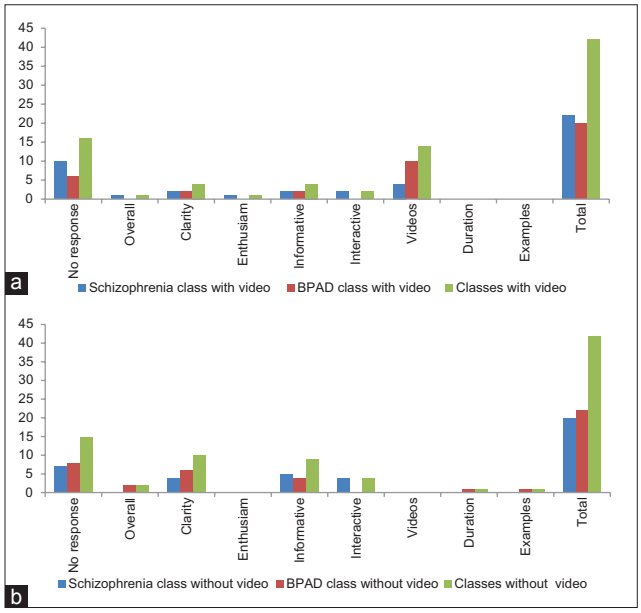

Figure 2: The following were the points most appreciated by the two batch of students. (a) In the video-assisted classes. (b) In the didactic lectures

Table 1: Mean knowledge scores (pretest and posttest) and feedback scores comparison between the two groups

Teaching method	Scores	Group	*n*	Mean	SD	Independent *t* value	*P*
Video assisted	Schizophrenia classes pretest	1	22	7.91	2.091	0.204	0.840
Didactic lecture		2	20	8.05	2.395		
Video assisted	Schizophrenia classes posttest	1	22	12.86	2.494	0.192	0.849
Didactic lecture		2	20	12.70	3.028		
Video assisted	Feedback: Schizophrenia classes	1	22	62.23	6.094	0.849	0.401
Didactic lecture		2	20	60.80	4.607		
Didactic lecture	BPAD classes pretest	1	22	9.09	2.562	1.077	0.288
Video assisted		2	20	8.25	2.489		
Didactic lecture	BPAD classes posttest	1	22	12.00	2.430	0.128	0.899
Video assisted		2	20	11.90	2.634		
Didactic lecture	Feedback: BPAD classes	1	21	59.90	6.347	1.012	0.318
Video assisted		2	20	61.65	4.487		

SD – Standard deviation; BPAD – Bipolar disorder

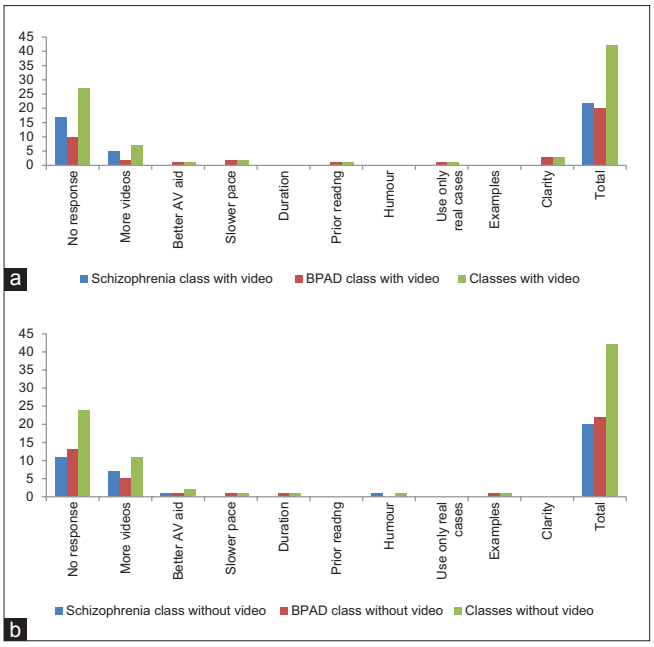

Figure 3: The following were suggestions for improvement offered by the two batches. (a) In the video-assisted classes. (b) In the didactic lectures

be referred to as "Group 1" and "Group 2", respectively. Group 1 and Group 2 consisted of 22 and 20 students each, respectively. There were no dropouts.

Intervention

The students were explained about the intended outcome and assured of confidentiality, and written informed consent was obtained before taking part in the study. Group 1 underwent video-assisted schizophrenia class and didactic lecture in bipolar disorder in two subsequent classes. A crossover was done for Group 2 so that they underwent didactic lecture on schizophrenia and video-assisted class for bipolar disorder. Both types of classes lasted for 1 h each. In the video-assisted classes, the video sessions consisted of about 20 min of the total teaching time. These videos used had real or simulated patients from Kolar manifesting symptoms of either disorder. The students of both the groups were subjected to the pretest and posttest for each topic using the same set of topic-specific validated 20 multiple choice type questions. The questions had an equal mix of recall and application-based questions. The students also filled a prevalidated specially designed feedback form of 14 items using a Likert rating for each class. These forms also allowed them to highlight on the points they liked most and those that could be improved on about these teaching sessions. Questions framed for feedback were discussed with the psychiatry faculty, and 14 questions were finalized. The content validation was done by the faculty, medical education unit members, and FAIMER fellows. It was piloted on 12 students of the same term (7th) who were not a part of this study, and the internal consistency was found to be reliable (Cronbach's alpha – 0.71).

Statistical analysis

The pre- and post-test scores and feedback within the group and between the groups were analyzed using paired and unpaired *t*-test, respectively.

RESULTS

From Figure 1, it can be noted that the knowledge gained as assessed by the pre- and post-test analysis of the multiple-choice question-based assessment showed a significant gain of knowledge after all four sessions. The knowledge gained was slightly more in both the video-assisted classes undergone by Group 1 and 2 as compared to the two traditional lectures. However, the finding was not statistically significant.

Table 1 reveals that the above finding is however not statistically significant. Further on assessment of the 14-point prevalidated feedback forms which evaluated the content, structure, presentation styles, and also offered room for preferences and suggestions, it was observed that most students favored video-assisted teaching (total mean feedback score – 61.99 and standard deviation [SD]) compared to the conventional method (total mean feedback score – 60.58, SD) on a total of 70. The increase in the mean feedback scores indicates the students' preference even though it was not statistically significant.

DISCUSSION

In our study, it was found from the pre- and post-test evaluation that there was a significant gain in the knowledge in all four sessions which was significant and slightly more using video assistance although it was not statistically significant. Our finding is consistent with a similar study carried out in nursing students and the study also tried to match the findings to the sociodemographic variables of the purposively selected students which were not attempted in our study. However, the finding was not of any significance.[3] The mean feedback for video-assisted teaching was 61.99 of a total of 70 while it was 60.58 for that without videos. This indicates that students prefer the usage of subject-relevant videos during lectures. Similar findings have been seen in previously carried out studies testing the efficacy of blended versus nonblended techniques.[4-7] Through the students' feedback obtained, it was indicated that the students preferred the use of videos, stating that it gave better clarity, was informative, and gave more room for interaction [Figure 2]. Similar reflections have also been revealed in previous studies.[5,6] The students also expressed a need for more use of audio–visual (AV) aids in the form of related subject pictures and more videos [Figure 3]. Related studies have indicated that students have a preference for locally

prepared videos/aids and that AV aids should be used purely to complement traditional methods and not to replace it altogether. This may explain the fact that students although expressed a preference for the video-aided sessions, they did not express an aversion for the didactic format, and the difference in the mean feedback failed to have any statistical significance. It came across uniformly through these various studies that blended learning was by far widely appreciated by the students, UGs, and postgraduates alike as compared to other passive formats of e-learning.

Both methods were found to be effective in terms of knowledge gained and students' feedback. This reflects that the students are happy with the traditional method of teaching; however, they find videos a useful tool to be used during lectures. Effectiveness with videos though favored by the students was not statistically significant owing to the small sample size. Using a larger sample size and a formal formative and summative assessment at the end of the teaching session with opportunities for feed forward may be a more effective method to explore the benefits of video assistance in teaching psychiatry for medical UGs. A focused group discussion may be a better way for collecting feedback, and we plan to explore the same in near future.

CONCLUSION

Both didactic and video-assisted lectures were effective in terms of knowledge gained and students' feedback. Using video assistance as a complement to lectures and not to replace the traditional methods is the way forward.

Acknowledgments

This study was carried out as a part of Dr. Mona Nongmeikapam's Advance Course in Medical Education (ACME 2016) at St. John's Medical College Bangalore. We would like to thank all ACME faculty and members. We also thank all faculties from our institution, teaching and nonteaching who helped in the conceptualization and carrying out of the lectures, and above all, the students who participated enthusiastically.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

REFERENCES

1. Medical Council of India. Medical Council of India Regulations on Graduate Medical Education. Medical Council of India; 1997. Available from: https://www.mciindia.org/documents/rulesAndRegulations/GME_REGULATIONS.pdf. [Last accessed on 2018 Jan 03].
2. Dogra AP. Making videos for medical undergraduate teaching in child psychiatry: The development, use and perceived effectiveness of structured videotapes of clinical material for use by medical students in child psychiatry. Med Teach 2000;22:568-71.
3. Pradhan P, Kumar S, Devi S. Effectiveness of video assisted teaching module (VATM) on electro-convulsive Therapy (ECT) care among nursing students of a selected nursing college in Bhubaneshwar, Orissa. J Sci 2014;4:363-70.
4. Goorah S, Bahadur G. Designing and implementing a local educational video for clinical skills teaching in medical education using easily available resources and software. Univ Mauritius Res J 2012;18B:1-13.
5. Roland D, Balslev T. Use of patient video cases in medical education. Arch Dis Child Educ Pract Ed 2015;100:210-4.
6. Kelly M, Lyng C, McGrath M, Cannon G. A multi-method study to determine the effectiveness of, and student attitudes to, online instructional videos for teaching clinical nursing skills. Nurse Educ Today 2009;29:292-300.
7. Liu Q, Peng W, Zhang F, Hu R, Li Y, Yan W. The effectiveness of blended learning in health professions: Systematic review and meta-analysis. J Med Internet Res 2016;18:e2.
8. Morton CE, Saleh SN, Smith SF, Hemani A, Ameen A, Bennie TD, *et al.* Blended learning: How can we optimise undergraduate student engagement? BMC Med Educ 2016;16:195.
9. Shaffer K, Small JE. Blended learning in medical education: Use of an integrated approach with web-based small group modules and didactic instruction for teaching radiologic anatomy. Acad Radiol 2004;11:1059-70.
10. Ocak M, Topal A. Blended learning in anatomy education: A study investigating medical students' perceptions. Eurasia J Math Sci Technol Educ 2015;11:647-83.
11. Benitto A. Effectiveness of video assisted teaching module on effects of substance abuse. J Psychiatr Nurs 2013;2:1-36.