PERCEPTION OF 3RD YEAR BDS STUDENTS ABOUT LEARNING CLINICAL SKILLS THROUGH VIDEO CLIP

[1]SHAKILA MUSHTAQ, [2]RIZWANA KAMRAN, [3]FAIQUA YASSER, [4]MAHWASH JAHANGIR KHAN

ABSTRACT

Dentistry requires perfection in lots of clinical procedures to be mastered by all BDS students. The objective was the study to evaluate the effectiveness of video clips to help students in learning clinical skills and retention of delivered content. A study was undertaken among 50 dental students of 3rd year BDS. In first step, a one-hour lecture was given on how to perform scaling on patients. Then a video clip of scaling procedure was shown to them. Then out of 50 students, 10 students were randomly selected and they were asked to write down their comments in response to that video clip. After getting the student's views, themes were generated by using Nvivo software. By using these themes, a survey questionnaire was designed and distributed among the 50 students (3rd year BDS class).

10 students delivered their comments and 50 students responded by providing their feedback through filling-in of questionnaire and the decision was that the majority of the students agreed with the notion that the use of video clips helped them learn clinical skills.

Key words: *Clinical skills, Video clips, Retention of delivered content, scaling.*

This article may be cited as: Mushtaq S, Kamran R, Yasser F, Khan MJ. Perception of 3rd year bds students about learning clinical skills through video clip. Pak Oral Dent J 2020; 40(4):233-35.

INTRODUCTION

Medical teaching aids were limited to blackboard/chalk and models till mid-eighties. Then came the era of overhead projectors/transparencies followed soon by slides/slide projectors. Currently, the class teaching for the medical/dental students is mostly through Power-Point presentations including the use of multi-media.[1] Researchers have attempted to compare efficacy of various teaching aids and, acceptance of these aids by the medical/dental students. An image could have thousands of words in it. So, charts and diagrams are considered important tools for teaching the students.[2].

Video clips have also emerged as an effective tool in teaching the students. The video clips are combination of graphics, text, color and audio that bring life into lectures and the students have an opportunity to learn by using their auditory and visual senses in an effective way.[3] Various researchers attempted to determine the advantages of including video clips in the lectures during past few decades. Burt (1999)[4] wrote that a video clip contributes towards teaching with content, context, language, and practicality. Escalada & Zollman (1997)[5] reported that computer visualization techniques help students by enabling them to collect, analyse and store the knowledge. Schuck & Kearney (2006)[6] concluded that video clips expand and support good curriculum outcomes.To become clinically competent the students should develop proper clinical skills related to different challenging conditions. The objective of the present study was to determine the perception of 3rd year dental students about the use of "video clips of a clinical procedure" as a teaching tool.

MATERIAL & METHODS

The study population was third year undergraduate dental students at Institute of Dentistry in FMH Lahore Medical College. The study design was sequential exploratory mix method, and the data were collected through a questionnaire especially designed for the study. All 3rd year students (50 students) were given a one hour lecture on the concepts of dental scaling on patients. They were also shown a video clip in which procedures of scaling were explained. Then, out of 50 students, 10 students were randomly selected and were asked to write their comments about the video clip

[1] **Correspondence:** Dr Shakila Mushtaq, Senior Lecturer, CMH Lahore Medical College and Institute of Dentistry. Abdul Rehman Road, Lahore Cantt. Email: drshakila.m@gmail.com Phone: + 92 3004398734

[2] Assistant Professor, CMH Lahore Medical College and Institute of Dentistry

[3] Associate Prof, CMH Lahore Medical college and Institute of Dentistry

[4] Senior Lecturer, CMH Lahore Medical College and Institute of Dentistry.

Received for Publication: Jan 01, 2020
First Revision: Feb 28, 2020
Second Revision: Aug 29, 2020
Approved: Aug 30, 2020

using a computer assisted qualitative data analysis software CAQDAS (NVivo12). With the help of this process, nine survey questions were developed (Table 1). The questionnaire (survey instrument) was then distributed among the whole 3rd year class of 50 students. The positive and negative sentiment of respondents were triangulated by using auto-coding technique of NVivo software by taking unit of analysis as a single sentence of each respondent. The chart exhibiting the results of the sentiment analysis was ran through the NVivo software. The software has four level scale of sentiments i.e. from "very negative", "moderately negative", "moderately positive" to "very positive". The responses of the students were submitted into NVivo 12 software, and frequencies were generated.

RESULTS

All of the 50 3rd year BDS students participated in this study. Most of the respondents had positive thoughts about using videos in their learning (Figure 1). The student's response in form of sentiments regarding the questionnaire were divided into being "very negative", "moderately negative", "moderately positive" and "very positive" where the results mostly were between "moderately positive" to "very positive".

The students were provided with inter-related questions such as, "if the addition of video clips in academics helped in maintaining interest and visualize conception among the students". And, if the students agree that these videos helped them in creating connection between theory and practical learning. Also, how the students felt about the video whether it was helping them to improve their critical thinking abilities or not. And if the students think that the videos are helping the students in retaining of information and better handling of instruments. Majority of the students in responded positively to all the questions (Table 1).

DISCUSSION

The present study collected information about how undergraduate dental students feel about inclusion of video clips in the lectures they attendadopted ss. Majority of the students gave encouraging response about the inclusion of video clips in the lectures. This was in agreement with previous studies,[7, 8] where the students had positive perceptions of video clips during the lectures. The findings of the present study indicate that e-learning can be beneficial in improving clinical education and supplement traditional teaching of clinical skills. Some students had negative responses on the effectiveness of the video clips. It can be speculated that watching video clips alone is not enough for some students to learn a clinical skill. F should toresources.A study in Austria[9] concluded that even if the study results were unable to show significant improvements in the

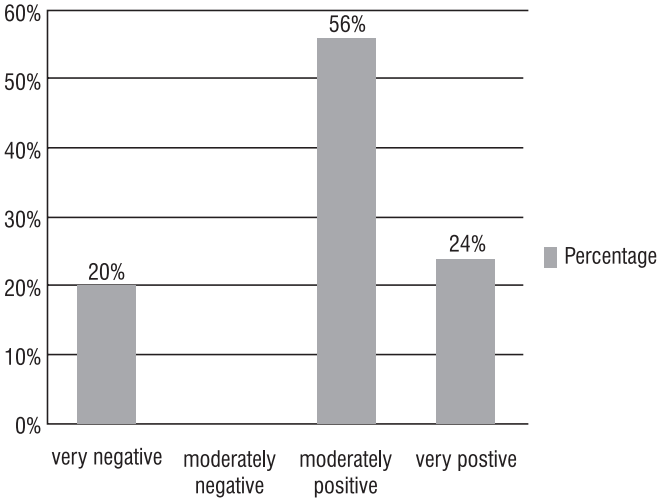

Fig 1: Graphical representation of the students' responses identified through NVivo sentiment analysis query.

TABLE 1: THE STUDENTS' RESPONSES ABOUT THE VIDEO CLIP.

Question's Statements	Yes (%)	No (%)
Do you agree that video clips addition to academics, helps in maintaining interest and visualize conception?	95	5
Do you agree that video clips addition in academics, helps in retaining information better and handling the instruments?	89	11
Do you agree that video clips addition to academics, helps to succeed in exams and learning periodontal procedure?	88	12
Do you agree that video clips addition to academics, helps in recalling the concepts while working on the patients?	92	8
Do you want to watch more videos in future in academics?	99	1
Do you agree that watching video helps in improving critical thinking abilities?	85	15
Does watching videos help in creating connections between theory and practical?	93	7
Do you believe that watching video clips helps in improving motivation level of the students?	88	12
Do you feel satisfied that video clips give satisfaction about learning?	98	2

OSCE as a result of viewing the videos, the combination formats, such as videos on online platforms with textbooks or lecture notes, is well suited to increase effectiveness and efficiency of learning. This present will also be playing an important role in encouraging the curriculum planners and the administration of the medical institutions to consider the importance of using the different e-learning techniques and provide the opportunities to the students to learn more effectively.

The video-based learning might be helpful in overcoming the limitations related to dental teaching especially limited working space, small size of the oral cavity and challenges in physical demonstration of the detailed clinical processes. Students are usually not able to view the different procedures thoroughly thus making it hard for them to learn complicated cases. Video clips could allow learning by large number of the students simultaneously. This could also be effective in providing demonstrations related to the removable partial dentures and fixed prosthodontics.[10]

There is a need for further studies to investigate and analyze the effects of instructional videos in more detail.[11] This was a preliminary investigation which demonstrated that faculty should make use of video clips as teaching aid during their lectures.

CONCLUSION

The results of this preliminary investigation among the undergraduate dental students have shown that use of video clips during lectures can enhance learning of clinical procedures.

REFERENCES

1 Chavan, S., Bray, F., Lortet-Tieulent, J., Goodman, M. & Jemal, A. International variations in bladder cancer incidence and mortality. Eur Urol 2014; 66:59-73.

2 Schuck, S. & Kearney, M. Capturing learning through student-generated digital video. Aust Educ Comput. 2006; 21:15-20.

3 Tennyson, R. D. An instructional strategy planning model to improve learning and cognition. Comput Hum 1988; 4:13-22.

4 Burt, M. Using Videos with Adult English Language Learners. ERIC Digest 1999; ED434539:1-9.

5 Escalada, L. T. & Zollman, D. A. An investigation on the effects of using interactive digital video in a physics classroom on student learning and attitudes. J Res Sci Teach 1997; 34: 467-489.

6 Schuck, S. & Kearney, M. Capturing learning through student-generated digital video. Aust Educ Comput 2006; 21:15-20.

7 Parson, V., Reddy, P., Wood, J. & Senior, C. Educating an iPod generation: undergraduate attitudes, experiences and understanding of vodcast and podcast use. Learn Media Technol 2009; 34:215-228.

8 Jang, H. W. & Kim, K. J. Use of online clinical videos for clinical skills training for medical students: benefits and challenges. BMC Med Educ 2014; 14:56-56.

9 Bäwert, A. & Holzinger, A. Practice makes perfect! Patient safety starts in medical school: Do instructional videos improve clinical skills and hygiene procedures in undergraduate medical students? GMS J Med Educ 2019; 36(2):1-12.

10 Edrees, H. Y., Ohlin, J., Ahlquist, M., Tessma, M. K. & Zary, N. Patient Demonstration Videos in Predoctoral Endodontic Education: Aspects Perceived as Beneficial by Students. J Dent Educ 2015; 79:928-933.

11 Herrera-Almario, G. E., Kirk, K., Guerrero, V. T., Jeong, K., Kim, S. & Hamad, G. G. 2016. The effect of video review of resident laparoscopic surgical skills measured by self- and external assessment. Am J Surg 2016; 211:315-320.

CONTRIBUTIONS BY AUTHORS

1 Shakila Mushtaq:	Research concept, data collection, manuscript writing.
2 Rizwana Kamran:	Literature review, data analysis, manuscript editing.
3 Faiqua Yasser:	Literature review, statistical analysis, manuscript editing.
4 Mahwash Jahangir:	Research concept, data collection, manuscript write up.