THE USE OF VIDEO AS A SUTURING SKILLS LEARNING RESOURCES IN MEDICAL EDUCATION: A LITERATURE REVIEW

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Abstract

Using video in learning showed effective results in practicing clinical skills. Video can also be used to teach the clinical practice and physical examination skills. This literature review paper describes the effectiveness of the use of video as a suturing skills learning resources. We search the journal as a review of the literature through Google Scholar and ScienceDirect by using the term or key word search as follows "video", "learning resources", "suturing" and "medical education" which, combined with the words “AND” and “OR”. We also restrict the search to journals that published for ten years, between 2005 and 2015. Video as a learning resource should be introduced in the beginning of the lecture. Video is an effective learning resources to teach clinical skills but has several limitations, namely lack of interaction between students and students and lecturers as well as the lack of provision of feedback to students. The use of video in education pre-clinical medical students is an effective way to teach students the skills procedure that save time, space and resources used.

Keywords : video, learning resources, suturing skill, medical education

INTRODUCTION

Problem Based Learning (PBL) as a learning method, applied in Faculty of Medicine requires students to take an active role in the learning process. To support this learning method, the facilities needed are learning resources. The "Learning Resources" here can refer to people or materials (either obtained or created by the curriculum team) used for formal or informal teaching / learning purposes. Learning resources can be printed and non-printing (such as audio, visual, electronic resources, and digital hardware / software) and human resources. The learning facilities are needed to facilitate students in mastering clinical theories and skills.[1]

Clinical skills in the medical profession are absolutely necessary. These skills are motor skills based on good knowledge and affective attitudes. Medical services could not be run properly and optimally if only rely on scientific understanding without the skill. In fact, clinical skills for physicians must be internalized within themselves, so that in the conduct of actions and actual management of the case can be done automatically because the scholarship and skills have been embedded with professional behavior. To achieve a good clinical ability is very necessary optimal practice for prospective doctors during the education, both in terms of quality or quantity.[2,3]

Video can present more ways to learn that can be used to facilitate students in accepting and practicing skills in the medical world. This paper was created to assess the effectiveness of the use of video as a learning material for sewing techniques from ten journals and articles as literature review. Learning by video demonstrates effective results in training in clinical skills. Nevertheless there are still challenges that must be faced in using this technology. A study states that e-learning has proven to be effective in supporting clinical education. Students learn more effectively by using instruction through multimedia. Videos can also be used to teach skills and physical examination procedures.[4,5]

RESEARCH METHODS

We look for journals as literature review material through Google Scholar and Science Direct using terms or search terms as follows "video", "learning resources", "suturing" and "medical education" combined with AND and OR. We also restricted journal searches for the last ten years between 2005 and 2015. From the search results we got ten literatures on the use of video in medical education. Ten literatures consists of eight research journals and two articles.

RESULTS

Learning resources are a very important part used to achieve success, independent learning, lifelong learning by students in medical education. Learning resources requires learning process, where training is required to recognize learning resources, then begin deciding to use the learning resources at the evaluation stage, then learn how to use these learning resources at the learning process, and do their skills related to the use of learning resources. Obtain and know the stage of use of learning resources and barriers related to skills for learning.[6]

The technology to combine visual and audio has evolved since a century ago. Currently the faculty and the learners find that learning by using electronic multimedia can provide benefits to the teaching and learning system to improve the achievement of learning objectives. Although there is much research showing that video and multimedia tools can support improved learning motivation, there is still a bigger question where the advantages are gained between traditional methods and learning methods with video or other multimedia tools.[7]

Development of technology used as a medium of instruction in the medical education curriculum, it needs an understanding of multimedia and video use guidance in medical education. In this case educators can choose to use existing videos that meet their teaching objectives, or create their own videos. In making the video requires adequate technical skills and guidance by people who are experts in making videos. An interactive discussion is required in the use of video to increase student participation.[8] Learning triggers in the using video should be introduced in the early years of the lectures and learning triggers in the using of papers introduced at the end of the lecture year. The expected effect of providing learning triggers in the form of video is to know how students describe and reconstruct the knowledge they get, suggesting researchers to introduce video triggers in the early years when students need to spend more time identifying and defining medical problems in order to build understanding. In recent years, students have sufficient basic medical knowledge with problem-solving skills, triggers can be give to the students to gain clinical solutions and clinical management skills. [9]

DISCUSSION

Students participating in Video Based Learning had significant differences in sewing values in the first and third months of Life Workshop Learning. These results suggest that Video Based Learning may be as effective as Life Workshop Learning. The application of the use of Video Based Learning in preclinical education of medical students is an effective way to teach students skills procedures that save time, space and resources used. Although Video Based Learning serves as a promising learning tool, there are some limitations to this method of learning: lack of interaction between students and doctors and limited feedback from instructors.[10]

Computer Based Video Instructions can be as effective as feedback from an expert in providing basic technical skills instruction to medical students. When incorporated into the technical curriculum, Computer Based Video Instructions can make efficient use of time and can serve as a useful addition to basic skills training.[11] Students who practice basic surgical skills techniques after a week of training with video independently can provide significant improvements. And the researchers did not see a significant improvement advantage in basic surgical skills demonstrated by students who practiced independently without video or with the supervision of an expert instructor. The use of video-based instruction in basic

surgical skills curriculum can help to optimize the use of teaching resources. Continuing Medical Education, a course for the development and training of continuous surgical methods on the first and second weeks of students are required to watch the video first and then the third and fourth week of surgical skills. [12,13]

The use of streaming video raises criticism from basic science departments because it is considered to reduce student socialization to the environment and reduce student attendance in lectures. However, by integrating a number of interactive learning meetings such as small group discussions, laboratories and others can also improve student socialization. Streaming video technology has become a viable method for classroom teaching methods in large classes as well as small group discussions and to meet the needs of current medical students.[14] It is necessary to improve the practice of using video in the teaching and learning process of clinical skills. First, the faculty a bit using the OSCE video while teaching. This indicates that e learning only gives little influence to the practice of teaching although more often used by students. Faculty need to develop how to integrate the OSCE video on their teaching process. For example, a professor may ask a student to watch several videos before attending classes so as to reduce college time and can provide more time for practice and provide feedback. Faculty need to integrate these learning materials to the learner, integrating interactive tools to support the use of e learning and using tools to facilitate students accessing learning materials effectively.[15]

Learning resources are a very important part of medical education. Video as one of the learning resources can support the improvement of students' learning motivation. In the use of video as a medium of learning need to do an interactive discussion to increase student participation. Learning triggers should be given in the early years when students need to spend more time identifying and defining medical problems in order to build their understanding of basic and applied science. The application of video use in preclinical education of medical students is an effective way to teach students skills procedures that save time, space and resources used. It can also be used effectively in giving feedback to students. The use of video in clinical skills can optimize the use of teaching resources. In the use of video as a source of learning, the challenge is the lack of student interaction with the environment. But by integrating lecture methods, the use of video can actually save more time lectures and the time available can be used for more clinical skills and feedback.

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