Comparing Two Views Of Video Demonstration For Access Cavity Preparation: A Quasi-Randomized Controlled Trial

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\textbf{Introduction:} Demonstration of the access cavity preparation procedures to dental students is challenging due to the limited operating field and detailed nature of the procedures. It is especially difficult to visualize how instruments are functioning inside the pulp space. The aim of this study was to develop and compare two different views of video demonstration in teaching access cavity preparation. \textbf{Materials and Methods:} Two videos of access cavity preparation were filmed, showing occlusal view of a whole tooth (WT) and sagittal view of a sectioned tooth (ST). Using quasi-randomization, third year dental students (n=57) were divided into two groups to watch either one of the videos. The perception and performance of both groups were compared using Mann-Whitney U test and Fisher exact test. \textbf{Results:} At baseline, group WT (n=29) and group ST (n=28) were not significantly different in terms of operative scores (p=0.330). After watching the videos, the basic understanding of the theories were similar between both groups. However, ST responded more positively towards the helpfulness of the video in visualizing the inner anatomy of the tooth and in implementing the procedures (p<0.05). ST also completed the exercise within a shorter time (p<0.001). Nevertheless, the quality of the prepared access cavities was not significantly different between groups. \textbf{Conclusion(s):} Using sagittal view of sectioned tooth in video demonstration of access cavity preparation can improve students learning and performance speed. We highly recommend showing the sagittal view of sectioned tooth in video demonstration of access cavity preparation.

\textbf{KEYWORDS:} dental education, endodontics, audio video demonstration, audio video aid