Introduction of Electric Handpieces into the Dental Curriculum: Assessment of the Maryland Experience

Gary D. Hack*, Sandy Allen, Kathy J. Martin, Louis G. Depaola
University of Maryland Dental School, Baltimore, MD, USA

Abstract

Making the switch from air-driven to electric handpieces was guided by the vision of incorporating state-of-the-art technology into the dental curriculum. A leap of this magnitude required a culture shift, and as with every new program, an assessment of the environment was necessary. Therefore, the strengths, weaknesses, opportunities, and threats associated with such a decision were evaluated. Included in this assessment were planning methods and processes, decision making approaches, and implementation strategies.

The authors will describe the decision making process used to procure electric handpieces, to drive the transition from air-driven to electric, and to utilize InfoDot technology to track, order, repair and maintain handpiece components. Based on our initial experiences, we will discuss the future of electric handpiece use in dental education, current product effectiveness, and acceptance by the students and faculty. Suggestions will be made that will assist in integrating electric handpieces into the dental curriculum.

In September, 2006, the University of Maryland Dental School moved into a facility that was outfitted with the most technologically advanced dental equipment available at the time. A major component of this process was selection of the equipment to be used by the students. The sequence of events listed below describes the phases of our experience of transitioning to electric handpieces.

2005–06 Planning, Purchasing, & Preparing
Sept 2006 Introduction /Implementation Phase
2007 Introduction to Simulation
2007–09 Stabilization/Identifying Improvements
2010 Lessons Learned/Future

Procedures Performed with Electric Handpieces

Transitioning to Electric Handpieces

Our assessment of this curricular change evidenced a positive student response to the use of electric handpieces throughout their years of dental education. Electric handpieces represent an innovative technological advancement that clearly supports curriculum enhancement. Through the use of electric handpieces, we were able to introduce our students to rotary endodontics as well as implant placement techniques during their preclinical training and carry this experience into their clinical years.