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Dental Hygiene Research: Not Just for Educators

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Research is a word that conjures up different ideas for different people. Some think of the mad scientist type in a laboratory full of bubbling beakers and test tubes. Others may envision a professor behind a desk, barricaded by stacks of dusty tomes. For some dental hygienists, it is their life passion, while others may think that there is no way they could possibly do research. One thing is for certain, now more than ever, the profession of dental hygiene needs researchers to take a lead.

If you are wondering why, the answer is quite simple. The rules of engagement for health care providers have changed dramatically, with no sign of slowing down any time soon. Arguably, the most profound change in health care administration has to be the recognition of the importance of evidence-based practice. From physical therapy to nursing, professions as a whole have embraced evidence-based practice and have looked to the grassroots-level provider (such as the practicing dental hygienist) to expand their databases. For example, the American Physical Therapy Association has a program called "*Hooked on Evidence*" available to its members that allows them to access, contribute, and put into practice evidence-based knowledge relevant to the practice of physical therapy.¹ They do this because they understand that patients need and deserve the most current, tried-and-true treatments available. There is simply no other way to administer this sort of care other than understanding the importance of and being able to access the body of evidence-based knowledge.

Where does dental hygiene fit into this paradigm? Health care today is moving towards a more preventive model, which puts the dental hygienist in a prime position. As dental hygiene professionals, we are by nature preventive health care providers. Our patients have expectations, many unspoken, that the dental hygienist is giving them the most current, sound treatment and information. Nobody knows what you do better than you, and more importantly, nobody knows what information a dental hygienist needs most than a dental hygienist! Other professions, such as nursing and pharmacy, have recognized this and have embraced the idea that it is their responsibility to document the value of their services and contribute to the body of knowledge, and not wait for those outside of their profession to do it for them.² If we are the preventive arm of the dental profession, then we as dental hygienists should be *the* source, if not a major contributor to the body of evidence-based preventive dental medicine. In 2005, a report was released by the American Dental Hygienists' Association entitled "Dental Hygiene: Focus on Advancing the Profession," which called for an increase in the number of dental hygienists contributing to the dental hygiene body of knowledge, with the goal of meeting national health objectives and encouraging the propagation of integrative and systematic literature reviews as well as meta-analyses.³

Contributing to the dental hygiene body of knowledge can be very rewarding. One route to learning how to contribute to the knowledge base is by going to graduate school like I did in 2005. If this is simply not an option for you, there are several other ways for you to go about it. One can begin by identifying a particular topic, treatment, or issue that you have an interest in learning more about. Then, start by conducting a literature review. This is simply a search to see what has been written about your topic. If you have access to a computer at home or at your local library, you have all you need to

access PubMed, a free, online database from the National Library of Medicine. Additionally, many colleges and universities have a health sciences library with access to electronic versions of many of the peer-reviewed journals indexed in PubMed, such as the *Journal of Dental Hygiene*. Once you've done your search and collected your articles of previous studies or papers, you then write up a literature review, according to *Journal* submission criteria and then submit it to the a peer-reviewed publication. By simply adding a section identifying issues for research that you uncovered as a result of your review of the literature, you can conduct what is referred to as an integrative literature review. For example, many times one can think of other areas that need to be studied about a topic just by familiarizing yourself with what has been already investigated. What questions remained unanswered? The *Journal of Dental Hygiene* literature review guidelines require a review to include a summary and critique of the current status of the topic and the aspects needing further study. Literature reviews begin with a nonstructured abstract, which includes a brief statement of purpose, content summary, conclusions, and recommendations. At least 4 keywords should be listed following the nonstructured abstract.

Another way to contribute is by writing a short report that discusses a clinical case study, an educational innovation, a research method, a concept or theory, or other current topics. These are usually in the form of a case study or theoretical manuscript. A short report can be a great contribution. This is an opportunity to discuss ethical issues, treatments, and/or other important topics. Some examples could be the impact of socioeconomic on prevention, the failure of our government to recognize the equal importance of oral health care, or alternative models of dental care around the world.⁴

The profession needs to ensure that all dental hygienists have the knowledge and tools to contribute to dental hygiene research. The simplest way is to start with student dental hygienists and expose them to research as part of their education. Some programs already integrate research into their curriculum. It can be as simple as having a dental hygiene researcher come to a student organization meeting to share their experience and promote research as a viable and rewarding career in dental hygiene. Or, imagine the potential if all dental hygiene programs required the completion of a table clinic from their students. This would expose students to conducting research and give them the opportunity to submit their table clinic abstract for publication, creating a neophyte researcher, author, and beginning public speaker in one fell swoop. Perhaps they may not pursue research immediately, but they will be empowered knowing that they have the experience and can pursue it when the time is right for them.

In the reality of the 21st century health care, dental hygiene has a duty to become more engaged in research, especially at the translational and clinical levels, and there are ample opportunities for all to participate.⁴ Each day you practice brings experiences that may trigger ideas. All it takes is a spark. I find myself constantly jotting down ideas to pursue. If you find yourself wanting to do any or all of these things, but are still not sure how to proceed, consider reaching out to a mentor. The ADHA Research Resource Persons Network is a great place to start. Just remember, you can do it! However you choose to proceed, the following quote should become your mantra:

The contemporary hygienist cannot and should not be content with cleaning teeth and providing health information to patients in the operatory. The hygienist of the future must be an even stronger person of science who uses evidence to move patient care toward a new era of prevention, recognizing that genomics and proteomics will offer innovative solutions. This may require the hygienist to become a strategic advocate for consumer health and to gain a comfort level moving further out of the operatory.

Sincerely,

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