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Become a Critical Reader

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Have you noticed that you now have to read more than ever before to keep up with the changes in practice technology, and you have to read even more to stay current with the vast array of new consumer oral care products? Have you noticed that many oral health-related publications, both paper and online, are now offered to you at no cost? Are you impressed by the volume and variety of continuing education courses advertised to dental hygienists throughout the year in various publications, in brochures delivered through the mail, and in messages posted on the Internet? Do you ever have time to read everything that proposes to make you a better practitioner? Do you sometimes think you may be suffering from information saturation?



I am certain about one thing-dental hygienists who are serious about maintaining their knowledge and skills at the cutting-edge level must now review and process more information more quickly than ever before. While most dental hygienists think of themselves as well-informed professionals, they readily admit that they sometimes have to search for answers to questions that come up in the normal flow of their practices. Furthermore, finding the best answer can require them to search the literature on a topic, and then distill their findings into concise, understandable lay terms. So, how do busy dental hygienists select credible information sources? I suggest that we must first become critical readers.

We have heard and read much about critical thinking skills over the past two decades, and while those skills are essential for today's practice, critical reading skills may be equally important. Like critical thinking skills, critical reading skills can be learned. The first step is to gather some basic information about the publications you most often read and consider good information sources. When reviewing a publication, ask questions such as, "Is its purpose to inform, persuade, introduce new products or techniques, present new research findings, or to review clinical treatment protocol?" Then, consider the credentials of the people involved in the publication process; are they respected by their peers for their integrity and professional expertise? It is important to examine the sponsorship of the publication in order to identify any possible conflicts of interests, so that you can feel confident that the articles it publishes will be unbiased. These are only a few of the major points to consider even before you begin to read the contents of any publication.

The matter of peer-reviewed and non-peer-reviewed publications is important when selecting sources of professional information. To become a critical reader of professional publications, one should be clear about the meaning of these very important terms.

Professional and scientific journals are peer-reviewed publications that document the scientific foundation on which a profession's practice is based. They publish new knowledge or discoveries that add to the existing body of knowledge that is unique to a given profession. This is one primary characteristic, in addition to the blind peer-review requirement, that sets professional scientific journals apart from professional newsmagazines and informational practice-related publications.

Peer-reviewed, or refereed, scientific publications are those that publish reports of original research that have not previously been published elsewhere, and that have been subjected to the critical blinded review of experts in the specific area of scientific investigation. A major purpose of the blinded review by experts is to determine whether or not the research process by which the new knowledge was discovered met universally accepted scientific standards for such research. The blinded review further determines whether or not appropriate statistical analyses were used, and the reported research results met universally accepted standards for reliability and validity. The process ensures that any claims made and conclusions drawn by the researchers were justified by the results of the research. Peer review of scientific research is extremely important to society because it protects the integrity of the scientific process and shields the public from unscrupulous individuals who, because of self interest, might be tempted to act unethically and endanger the health and welfare of the less-informed lay public.

The *Journal of Dental Hygiene* is the dental hygiene profession's peer-reviewed, or refereed, scientific publication and is published quarterly by the American Dental Hygienists' Association. The vast majority of articles now published in the *Journal* are reports of original research conducted by dental hygienists, although some well-presented short reports of unusual case studies, education and practice innovations, and comprehensive literature reviews also are published. Regardless of the manuscript type, all are subjected to the same rigorous, blinded peer-review process prior to being accepted for publication.

The ADHA newsmagazine, *Access*, is a good example of an informational professional publication that does not claim to be peer reviewed, even though certain articles in each issue undergo peer review. This review should not be confused with the refereed process used for professional and/or scientific journals. In publications like *Access*, the articles reviewed do not present new, previously unpublished research results or new discoveries. The original research that produced the core knowledge on which the article was based was previously published in a refereed scientific publication, and later presented in *Access* in a different format, to inform a different audience for different purposes. Many publications that are targeted to dental hygienists today fall into this category. These articles usually offer a clinical application of previously published research findings that is of particular interest to dental hygienists. Peer review of single articles is important in facilitating the appropriate application of research results to practice.

I don't know about you, but my reading time is always limited and must be worked in among other commitments. I suspect that you may be like me. Becoming a more selective and critical reader will help you make the most efficient use of your available information-seeking time. As a critical reader you will be able to quickly identify the professional journals, reports, meeting proceedings, and newsmagazines that consistently meet or exceed the publications' purpose and goals and can be trusted to only publish unbiased, accurate, and reliable information. By being a critical reader you will save time and energy by scanning, selecting, reviewing, and interpreting published materials related to professional practice. Finally, as a critical reader you must be cautious about what you accept as truth. You should always be wary of statements that are unsupported by references, and all such statements should be rejected if references are unavailable regardless of who made the statement.

I am pleased that so many dental hygiene publications are now available in print and online. Once upon a time, the *Journal* was the profession's lone publication, and it was difficult for it to be an all-purpose journal without sacrificing its scientific and scholarly purposes. When *RDH* came along in 1981, it was widely welcomed by clinical practitioners because it spoke directly to them through the stories, case studies, and articles they found useful in their practices. Then came *Access* in 1987, designed to provide timely information of interest to dental hygienists in a variety of practice settings and, especially, to inform people of the nationwide political activities affecting the profession and oral health. Since *RDH* and *Access* began, a number of other informational, practice-oriented publications have been introduced, providing more and more choices for dental hygienists interested in continuing to learn. This trend will no doubt continue into the future, with many

more appearing online, rather than in paper format. Each one will serve its own purpose, and there will no doubt be some overlapping of information, which doesn't matter. With more choices, more dental hygienists will be reading. Hopefully, more will be critical readers. That can't help but make the publications better.