## Let the Reader Beware

/ e live in an age of immediate information access. News broadcasts bring major events to the attention of the entire world as they are happening, and they are seen as well as heard. Satellite television broadcasts bring colorful, graphically explicit records of the latest "news." These broadcasts are usually accompanied by a commentator's analysis, and "experts" are called in to add their opinion and thus slant the meaning of the news coverage. Footage of previous, similar events is dredged from archives and every possible angle is explored. Sometimes, on a slow news day, not-so-important events are likewise showcased to fill the allotted time spaceevents that otherwise would go unnoticed and unmissed. To paraphrase a cliché: "reporting expands to fill the time allotted." The standards of accuracy for such reports are vague at best, and the public is not schooled to demand factual reporting nor able to discern the relevance of any pseudostatistical analysis of the importance of the happening. What is worse, the media become not only the reporters of what has happened, they begin to shape what will happen. News teams have power just by being so visible and "reporting" with an air of authority. The opinion of the reporter imparts bias to the viewer, and as the event unfolds, the viewer may be shielded from objectivity. Inasmuch as "audience share" is critical to the news team, the team seeks ways of making the news more dramatic, and the distinction between entertaining and informing becomes blurred. One sometimes wonders if the "reporters" themselves have not lost that distinction. Are news teams paid for the accuracy of their reporting, or their entertainment value and ability to attract a mass of viewers? Silly question!

Unfortunately, the parallel to these phenomena is seen in dentistry. Even though dental "information" is less immediately available, some of the same devices used in television are found in dental print media. There is a great disparity in the accuracy of dental "reporting." Some "feature" articles are based on the size of related advertisements found in the publication, and will read as if they are reported "fact." Authors emerge that have been given pseudocredibility by their sponsors. Some feature columnists and reporters will not even explore any product or process that does not pay for the pleasure of that reporter's attention. This is nothing but covert prostitution, with the perpetrator flying under false colors of respectability.

Although most readers recognize that these colorful "throw-away" rags are not publishing for the purpose of promoting scientific accuracy, they are the only dental publications many dentists read, and opinion is shaped. Also, these media begin to draw attention (again through "sponsorship," ie, payment) to speakers and programs. This sponsorship is rarely made known, but a pernicious cycle is initiated with the elevation of the clinician's "prominence" and that speaker's dependence on the sponsor. The deflating effect on credibility is obvious. There are other publications, some of which are "peer reviewed," whose commercial nature is less blatant. Suffice it to say that variation in the quality and stringency of such reviews is very broad.

Obviously, there is an unwritten hierarchy of the scientific credibility of dental publications. The greatest number of readers are attracted to those that are "easy to read," require little cerebral effort, and offer a quicker, easier, and cheaper solution to the clinician's problems. Many of these lower-level publications seduce the reader, teaching that mediocrity is just fine, and attempting to justify slipshod procedures.

It is this editor's premise that anyone who is reading this page does not fall into the category just given. However, I want to raise another issue that is less obvious than blatant pandering. It is very difficult for reviewers and the editorial staff to be aware of the great variations in the manner in which research and reporting are conducted in different countries. There is a broad variation among conscientious investigators' attention to detail and many well meaning "researchers" seeking to prove a point rather than to investigate a theory. It is rare to see a null hypothesis injected into the purpose statement. Indeed, some experimental designs are constructed to almost ensure a result that confirms the superiority of the project sponsor's product. Avoiding bias is difficult for an inventor or proponent of a procedure. It takes a discerning reader to clearly define unbiased and meaningful research. Frankly, most readers are not willing to make that effort. It is likewise difficult for reviewers and editors to dissect a report and ensure that an investigation was properly constructed and reported. In fact, we sometimes fail in our attempts to do so. Furthermore, it is the obligation of those reporting the results of an investigation to bring the limitations of a project to the reader's attention. Although a result may be valid under a given set of circumstances and with the materials investigated, it should not be assumed that extrapolation beyond the results of the project is valid. However, this editor is increasingly concerned that the same phenomena that are seen in major television news reporting are creeping into dental research reports. The reader wants dramatic improvement over past procedures and products, and the writer wants to provide this. Hyperbole is not uncommon, and overexpectation is generated

It is essential that reports disclose any relationship an investigator has with a product and the conditions under which the investigation was conducted. Unfortunately, just as with the lay press, many journals need material to fill their pages and must sell advertising to pay expenses. However, allowing an advertisement for a product to appear opposite a "research report" in which the product is featured stretches the boundaries of ethical journalism.

All of this serves to point out that readers must be increasingly alert to lapses in credibility in whatever they read. Schools should include courses in how to read the dental literature, and advanced programs should teach not only how to read, but how to write and how to report accurately. The onus is clearly being placed on the reader.

This should not be, but in the absence of any international standards for reporting, and with the wide variation in publication credibility, the clear fact is that appearance in print does not confer accuracy or credibility. As one wag stated it, the only thing proven by some printed reports is that ink still sticks to paper.

How can this be changed? Only by readers' aggressive rejection of self-serving, misleading, and biased reporting can we hope to slow, let alone stop, the trend toward dental media hyperbole. It is clearly impossible for credible publishers, editors, and reviewers to perform their duties infallibly, but support from the reader for those publications that do attempt to do so will greatly help to retain those standards that are essential for professional publications to disperse valid information in a reliable manner.

Jack D. Preston, DDS Editor-in-Chief

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