EDITORIAL

Definitive Answers or Definite Truths

How often do we read an article and discover that the information contained in the article has provided the answer to a specific question? Do we find that this happens often or is it a rare experience? My response to this question is that it is quite rare that any study ends with no new questions being raised or no call for further research. Certainly I do not claim to have read all the literature on any specific topic, including implant dentistry, but I am relatively well acquainted with the literature and yet I think that the above statement is well founded.

The question that started this editorial begs another. When listening to oral presentations at meetings, do you find that speakers frequently provide definitive answers to the questions that are left unanswered in the scientific literature? My experience is that this is absolutely the case. Rarely do I attend a lecture that fails to provide definitive answers to the problems identified in the introduction to the lecture. It appears that the podium is not the home for the timid or the undecided.

How does it happen that scientific studies end with questions while clinical presentations conclude with answers? Perhaps it is a matter of style.

Investigators understand that the work that they do is objective in nature. The results derived from this work are factual tidbits that may fit into the larger puzzle of understanding but rarely reflect the entire pool of knowledge on a specific topic. Investigators should not be vested in the results from any specific study; instead the investigator is simply reporting what happened. Regardless of the results and conclusions, the investigator lives to seek knowledge another day and this is routinely written into the discussion of the scientific article.

Verbal presentations follow an entirely different pathway. Rather than identifying new avenues for investigation, these presentations simply lead the audience to the pot of gold at the end of the rainbow. Never mind that today's presentation refutes the one that was presented yesterday—indeed that was yesterday and yesterday's gone.

While scientific investigation begins with a search of the literature to determine what has previously been described relative to the specific topic, verbal presentations frequently begin with very limited discussion of previous theories or approaches. When the past is discussed it is generally presented as an example of how things went wrong with the old techniques. The talks then quickly progress to the new approaches that solve the old problems and the final slides demonstrate how the previous nightmare was resolved by the heretofore unrecognized therapeutic approach. Of course the final images are beautiful and there are almost no instances where complications are discussed. Conversely, the scientific investigation chooses to use standard techniques to compare with modified approaches to determine if a difference exists between the two. Rather than presenting the best results, science seems to concentrate on average results (mean and standard deviation) and only occasionally does this demonstrate reasons for major changes in treatment paradigms.

Of course this begs the question of why there is such a disparity between scientific writing and clinical presentations. Is one group populated by members of the Optimist Society while the other draws members from the Flat Earth Group? Honestly, I doubt the situation is that simple or the disparity that great. The difference is one of perspective in that clinical presentations tend to be more artistic in nature while scientific presentations are more workmanlike. Clinical presentations tend to be one part art, another information, and a third entertainment. I risk offending some by this statement, but I also doubt that any meeting attendee would deny the entertainment factor associated with our best clinical presenters. Indeed they engage the audience and make listening to their message enjoyable. Their presentations provide the best outcomes from clinicians who are at the very top of their disciplines. Scientific papers are not quite that exciting. Instead these articles tend to be limited to the presentation of facts, and even then the facts need to be those that can be achieved by the average clinician following a standard formula (technique).

Maybe it's a function of demand. The clinical presenter needs to provide solutions to problems. Failure to do this is unlikely to result in a second invitation to that speaker so the speaker provides definitive answers, often in an authoritative way. The demand on the scientist is to establish what is definitely true. The scientist is concerned with hitting the target of truth and if that individual's reputation is tied to that "truth" there is a willingness to take a longer journey if that eliminates risks while maximizing the likelihood of success.

It all cycles back to the title. Clinical presentations do indeed provide definitive answers but the audience knows that those answers may be dependent on the unique skills of the presenter and may therefore not be achievable by every member of the audience. Scientific investigation, however, provides definite truths at the 95% confidence level, but there is no definite estimated time of arrival for those truths.

Steven E. Eckert, DDS, MS
Editor-in-Chief