Formulating the Research Question, Conducting the Investigation and Publishing the Results

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The dental profession's demand for evidenced based research now appropriately, exists. Whether it is materials, equipment, or techniques, the dental professional wants a careful, independent and unbiased examination and comparative analysis of clinical options. This is how it should be in order to provide optimum, state-of-the-art dental services to our patients. All of us can recall instances of touted dental materials or techniques that failed to deliver the expected or promoted result. Intuitive expectations have often led us to be disappointed.

The dental professional, and the dental materials and equipment manufacturer, are seeking to develop and discover optimum products and results. But, more often than not, the process is a methodical step-wise process rather than a quantum leap forward. This is where careful research serves us well. For example, restorative composite resins and bonding agents have evolved through many generations with steadily improving products over the past 50 years. Fortunately, the days of having to rely on silicate cement and acrylic resin to provide esthetic restorations are a distant past as we now use the most advanced bonding agents and composite resins to restore teeth. No doubt, even now the next generation of these marvelous materials are being envisioned and developed by dental manufacturers and material scientists, and being given clinical trials.

My own research into the dental implications of eating disorders, relationship between body-mass percentage to caries incidence among children and its effect on general health, identifying ways to address our professions' failure to affect change in food choices, eating habits and oral hygiene practices to prevent early childhood caries, and a disturbing increase in the number of children who require dental care with the aid of general anesthetic agents, remain stimulating and challenging areas of investigation but often resulting in more questions being raised than there have been answers. That numerous investigators are vigorously addressing these issues is gratifying.

In addition to posing important questions that have not been addressed, the investigator must identify supportive resources to conduct meaningful research. This can be both challenging and frustrating as funding is not limitless. Once research is completed it must find an avenue for information distribution through publication in refereed journals. In the past this was limited by the number of research based hard copy publications. Today, in addition to these traditional journals, on-line referred journals are available to offer expert vetted forums for research distribution and exposure. This can only help us continue to advance the dental profession and to help us better meet our patient's needs and challenges.