

Editorial Innovation or Experimentation?

The world has seemingly been overrun by social media. These communication tools keep us in constant contact with family, friends, colleagues, and interestingly, our patients. We are all aware of the broad impact, both positive and negative, a post on Facebook, Twitter, Instagram, or Snapchat can have. In the same view in which we can see photos of family on vacation in Ireland, we can now see colleagues posting pictures of their surgical procedures online.

Unfortunately, many of these procedures are done poorly or with disregard for currently accepted principles of care. It seems likely that most, if not all, are posted without patient consent. Our question is, "What is the ultimate goal of these posts?" Is it to demonstrate perceived surgical skill? Is it to show that the clinician did something outside of the box? Is it perceived to be innovation, or is it cavalier experimentation?

Dr Gordon Guyatt, the residency coordinator at McMasters University in 1990, described the core curriculum of his residency program with the phrase *evidence-based medicine*. This newly minted term first appeared in a 1991 *ACP Journal Club* editorial. The natural transition for the dental community was to introduce evidence-based dentistry. This approach to medical and dental health care provides clinicians with the ability to appreciate the full scope of clinical research through the application of epidemiologic studies, controlled clinical trials, human histology, and the determination of long-term success rates.

Ultimately, the overwhelming benefit to the patient, for whom these services are provided, is predictable therapy with minimal time off work, maximum long-term results, and a decreased economic impact.

We recently came across two posts that demonstrated partial extraction therapy (PET). Each post had likes and comments from well-known clinicians saying "congratulations" and "great work." As we reviewed the CBCT cross sections, we noticed that one example had kept the three roots of a maxillary molar and placed an implant in the interradicular space. We had to ask ourselves, "Is this now the standard of care?" and "Is there evidence to support this type of therapy, and to what benefit?"

In practice, we are continually challenged to improve the results and predictability of care for patients while striving to be minimally invasive. When a new biomaterial, technology, or technique is introduced, it is imperative that we employ a logical systematic analysis to determine whether to introduce it into our clinical armamentarium. The analysis should include determination of safety, benefits, and risks. Safety should include short- and long-term outcomes of the therapy. This is why long-term studies are needed—so we can make valid assessments.

In looking at risks and benefits, the clinician may ask if the new technology solves an unsolved problem. If the new technology is an alternative to existing therapy, the analysis should focus on whether the new treatment is an improvement or

proves to be equivalent. Are there added risks? Once this is determined, a decision can be made regarding clinical care. As avid researchers having participated in many human clinical trials, we understand that new technologies require investigation. These studies are accomplished with the oversight of institutional review boards following the criteria outlined in the revised Declaration of Helsinki (2000) and with comprehensive informed consent. A comparison between controlled clinical research and doing new therapies to see how they work in practice is not acceptable. We are not in practice to experiment on our patients.

It is incumbent on each and every clinician to provide care to patients with the highest quality of treatment dictated by scientific evidence. A "like," a "thumbs up," or a comment of "great job" on social media does not meet that standard of care. We do not go through years of preparation to experiment on patients in our everyday clinical practices. The patients for whom we are very fortunate to provide therapy look to us with absolute trust to diagnose, plan, and execute treatment with a sound, literature-based foundation. This is a privilege we must respect. As we strive to bring innovation, we must maintain patient trust by not crossing over to experimentation.

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