Guest Editorial

Hard Evidence and Soft Lighting

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o·pin·ion

1. A belief or conclusion held with confidence but not substantiated by positive knowledge or proof: *''The world is not run by thought, nor by imagination, but by opinion'' (Elizabeth Drew)*;
2. A judgment based on special knowledge and given by an expert: *a medical opinion.*

It is always valuable to bring evidence to the options we have chosen.

con·sen·sus

1. An opinion or position reached by a group as a whole;
2. General agreement or accord

For which of the following important orthodontic topics do we find ''consensus''?

- Cephalometric analysis
- Extraction vs. non-extraction decision-making
- Best lower incisor position
- Occlusal patterns and gnathololgy
- Best retainers and retention protocol
- Best pre-adjusted appliances
- Best treatments for various congenitally missing teeth
- Best treatment methods for anterior and/or posterior cross-bites
- Best Class II or Class III treatment methods
- The length of a university based orthodontic residency
- Best method for exposing impacted canines
- The appropriate time to ''start'' orthodontic treatment

Perusing this partial list, one is struck with the reality that if there were ''one best'' option, all of us would use it. Not so. As a further example we commonly diagnose and treat Class II discrepancies. Perhaps we have consensus on that topic. Dolce et al.[1] brought that question to eight orthodontists at various academic institutions throughout the United States. Interestingly, among the orthodontists surveyed, they discovered only moderate agreement when diagnosing a patient's type of malocclusion, which arch was at fault, and if a skeletal discrepancy was noted as part of the problem. Inter-rater agreement improved as the peer assessment rating score increased, but the correlation was weak, and not consistent for all examiners. A 2012 systematic review of the literature by Millett et al.[2] revealed that ''highly biased evidence exists with regard to management and stability of Class II division 2 malocclusion.''

Generally, orthodontists are recognized for their expertise. Among dentists, orthodontists may be thought of as supercilious specialists. Yet, according to highly respected professionals such as Dr. David Sackett,[3] we have preciously little ''good evidence'' for our individual opinions and practices. For an excellent discussion of ''Best Evidence Available'' the reader is referred to PF Anderson, (http://etechlib.wordpress.com). As Professor Lysle E. Johnston stated:[4] In orthodontics, ''experience shows that everything works well enough and often enough to support a clinical practice.'' For some, this may translate to a non-consensus, Zen style application or to a wheel'n ''license'' to dance, jive, duck and weave through any number of non-consensus options since ''if nobody is right then I can't be wrong''. Professor Johnston's final analysis may, in fact, be correct: when and how an individual clinician chooses to treat centers more on practice management than evidence. Addressing research and its effect on clinical judgment, Professor Peter Buschang observed that ''individual beliefs always trump facts''.[5]

Having earned credentials in dentistry as well as orthodontics, law, bioethics and the medical humanities, Larry Jerrold, DDS JD[6] brings to our attention that, in the United States, we are not allowed to dictate treatments. As licensed health care professionals, our responsibilities are to clearly explain various treatment choices (including no treatment) and then provide honest answers to legally responsible parties. That responsibility is not only to gain *consent* but our obligation must be to gain *informed consent*. Rather than dictating treatment, a discussion, with the responsible parties, of suitable ''treatment options'' is most appropriate and contributes positively to the doctor-patient relationship.

Treatment Options: Compliance, Non-Compliance and Happy Times

Gross, Samson, and Dierkes[7] suggested that orthodontic noncompliance can be viewed as a *discrete problem* rather than a *general behavior style*. In this 1985 paper, we discussed the levels of predictability that might exist using a parent's attitude of how compliant or noncompliant the patient might be. These included questions focusing on how well the patient was doing at school, and how well the patients themselves thought that they would do with removable appliances, dietary restrictions, and need for adequate oral hygiene. Results: the parental ability to predict compliance as correlated with how well a patient was doing at school was less than impressive. Patient "self-perceptions" (global self-worth) were more significant.

The most substantial correlation to positive compliance was found with how well the patient got along with the person treating them. That is, patients were most compliant with their treatment regimens when they "liked" the person treating them. The clinician should be aware, therefore, that a patient is far more likely to be compliant if that person has a positive opinion of the clinician. This compliant behavior may extend to parental responsibilities adhering to office policies, appointment times, keeping current with payment schedules, parent/patient referrals to the practice, and avoiding complaints.

I remember that Dr. Robert M. Ricketts once advised that the most important thing we do as clinicians is to motivate parents and patients. Positive motivation starts with the discussion of treatment options. These should meet the needs and expectations of the patient, the parent, and the doctor. Further, if the doctor is not comfortable with the choice or expectations of the patient/parent, then this is an indication to refer the patient for another opinion. And, they all will live happily ever after.

REFERENCES

1. Dolce C, Mansour DA, McGorray SP, Wheeler TT. Intrarater agreement about the etiology of Class II malocclusion and treatment approach. *Am J Orthod Dentofacial Orthop*. 2012; 141:196–203.
2. Millett DT, Cunningham SJ, O'Brien KD, Benson PE, de Oliveira CM. Treatment and stability of Class II division 2 malocclusion in children and adolescents: a systematic review. *Am J Orthod Dentofacial Orthop*. 2012;142:159–169.
3. Sackett DL. The science of the art of clinical management. In: Vig PS, Ribbens KA, eds. *Science and clinical judgment in orthodontics*. Monograph 19. Craniofacial Growth Series. Ann Arbor, MI: Center for Human Growth and Development; University of Michigan. 1986:237–251.
4. Johnston LE. Moving forward by looking back: 'retrospective' clinical studies. *J Orthod*. 2002;29:221–226.
5. Peter Buschang, PhD. Lecture and Personal Communication, 2014.
6. Jerrold L. Litigation, legislation, and ethics. The role of expert witnesses in claims for lack of informed consent. *Am J Orthod Dentofacial Orthop*. 2006;130:687–688.
7. Gross AM, Samson G, Dierkes M. Patient cooperation in treatment with removable appliances: a model of patient noncompliance with treatment implications. *Am J Orthod*. 1985;87:392–397.