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# Seminars in Orthodontics

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## *Orthodontics: Now? Later? Never?*

**W**hen is the right time to start orthodontic treatment? Faced with a literature rife with conflict, the evidence-based clinician is forced to sail on a sea of confusion. The title of this 2-part *Seminars in Orthodontics* issue, “Age-Appropriate Orthodontic Options,” features the key word, “Options,” the subject of an interesting recent discussion with Lysle Johnston.<sup>1</sup> In the process, he referred me to the scholarly work of von Neumann and Morgenstern.<sup>2</sup> These deep-thinking pioneers developed the Utility, Game, and Decision Theories. The Utility Theory seeks to quantify the value people place on a particular condition or event—its “utility.” Nobel prize-winning economist Paul Anthony Samuelson characterized these “revealed preferences”:

Utility is taken to be correlative to desire or want. It has been already argued that desires cannot be measured directly, but only indirectly, by the outward phenomena to which they give rise; and that in those cases with which economics is chiefly concerned the measure is found in the price which a person is willing to pay for the fulfillment or satisfaction of his or her desire.<sup>3,4</sup>

The concept of risk as a means of calculating utility is the basis of the so-called “Standard Gamble” (“reference lottery”) method.<sup>5</sup> Quoting A. Gani, “The Standard Gamble (SG) technique is recommended for measurement of individuals’ preferences under uncertainty and to express the outcome of different therapeutic choices in utility values to be used in clinical decision analysis and health program evaluation.” So it is with orthodontic treatment choices. For the purposes of this issue of *Seminars in Orthodontics*, the measurement of patient preferences can be applied to time the start of treatment. Simply stated, the clinician should establish the parental value of an improved dental health state and esthetic appearance for the child. Specifically, it suggests an assessment of what price the parents

are willing to pay in time, money, and risk to achieve age-appropriate dental esthetics and a good occlusion. In the process, one can explore whether or not the orthodontic objectives and values/utilities of the parents are well aligned with the capabilities of orthodontics and the doctor. In the end, Johnston concluded that, with few exceptions (e.g., disfiguring dental-facial conditions), the only patient who actually *needs* orthodontic treatment is the patient (parent) who *wants* orthodontic improvement—those who place an adequate “utility” on the prospect of a good occlusion and dental-facial balance.

### **Treatment timing: Choices and ethical obligations**

Sheena Iyengar<sup>6</sup> holds a business degree from the Wharton School of Business, she went on to earn a Ph.D. in Social Psychology at Stanford University and is recognized as a world authority in how people make choices and why their final choices are (or, are not) satisfying. Consider the fascinating investigations of Bertini et al.<sup>7</sup> Their article, “The Discriminating Consumer: Produce Proliferation and Willingness to Pay for Quality,” argued that consumers can be called “discriminating” when they value the differences between alternatives in a market, especially when considering these differences are costly. In practical terms, when competitors seek to distinguish themselves through the superiority of their offerings, they need the custom of discriminating consumers who look beyond price to welcome improvements in quality—no matter how small these improvements might be.

Within this issue you will find important, detailed information from Dr. Larry Jerrold. In addition to the ABO diplomate status, Dr. Jerrold earned a law degree and Certificate in Bioethics and the Medical Humanities. He is the section Editor of Litigation, Legislation and Ethics for the AJO/DO. Considering the timing of orthodontic treatment, Dr. Jerrold illuminates many of

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our legal as well as ethical obligations. A personal communication with Dr. Jerrold led to his statement, "Doc, you are not allowed to tell patients (parents) what to do. Your obligation is to explain options and answer questions. The parent stands for the patient and must be allowed ample information and discussion to decide the best treatment options for their child."

Dr. Jerrold emphasizes that if a clinician is not comfortable with the type of treatment (or lack of treatment) selected by the patient (parent), the best course of action is to recommend the parent/patient to seek opinion and care from a different doctor. Written documentation of this advice is essential.

### **Initial examination—Pre-records orthodontic check list**

As an opinion-based set of guidelines, during the "first visit" orthodontic examination I evaluate and record 4 key areas:

1. *Occlusion and function:* Class 1 primary cuspids, molar relationships, symmetry, anterior and/or posterior cross bite, functional shift, full range of motion TMJ evaluation, and TMJ/TMD history. This includes any specific history of dental and/or facial trauma.
2. *Space available:* evaluate if "reasonable" amounts of dental space are available. If orthodontic treatment is pursued at a later date, does extraction or non-extraction appear likely?
3. *Facial balance and symmetry:* These include the frontal profile, "dynamic smile," and overall facial impression of dental and facial balance.
4. Chief complaints and expectations of the patient and parents.

When any combination of these 4 is questionable, complete orthodontic records are advised. For an individual patient, if complete orthodontic records are NOT indicated, I feel the evaluation of a current panoramic radiograph is essential.

This issue of Seminars in Orthodontics contains thought-provoking information that addresses anterior and posterior cross bites, legal and ethical obligations, psychological considerations, and a unique categorization of levels of urgency as they relate to orthodontics considerations for children.

It has been a privilege to work with these recognized experts. They have generously contributed their time and efforts for the betterment of dentistry.

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