What do orthodontic patients really want?

David L. Turpin, DDS, MSD

Our specialty has spent years trying to prove that improved health and function are the primary reasons for orthodontic care. This effort has served the dental profession well and must continue, but why do most people really seek orthodontic treatment? Ask your friends and they'll admit that it's usually a desire for improved esthetics. They want that all-American smile that exudes confidence and enthusiasm. But how much research has been published to answer the many questions posed by those in search of a beautiful smile or perfect face?

Only last year, Peck and colleagues reported on a number of variables associated with the gingival smile line (Angle Orthod 1992; 62:91-102). Others (MacGregor, 1970; Shaw et al., 1979, 1980, 1981; etc.) have made valuable contributions to the literature. Overall, however, there has been a remarkable lack of research on dental and facial esthetics, giving rise to a number of questions: What do people expect when they seek treatment? What do we really know about the importance of dental appearance on psychosocial development? Do orthodontists and lay people differ in what they consider a pleasing profile? And how will the burgeoning field of video imaging affect diagnosis, treatment planning and practice communication in the future?

Three articles in this edition of The Angle Orthodontists deal with facial appearances. To help broaden our approach to this topic, and because the application of computerized imaging techniques will touch almost every aspect of orthodontic practice in the future, I asked Dr. David Sarver to introduce these three studies with a commentary on video imaging. Dr. Sarver has been personally involved in the use of video imaging techniques since 1985 and recently conducted a hands-on workshop for 25 clinicians during the annual session of the American Association of Orthodontists. According to Dr. Sarver, "This technology has the potential to touch almost every aspect of orthodontic practice, diagnosis and treatment planning, patient communication, practice management and other areas not yet realized." In his commentary, Dr. Sarver presents the positive as well as the negative aspects of video imaging, inserting what data is available to help the reader recognize what science has been applied to the merger of high technology and art.

Following this introduction, Tulloch, Kilpeläinen, and Phillips report on their investigation of why 473 parents wanted orthodontic treatment for their children. Their reasons ranged from appearance of teeth (85%), to the advice of their dentist (73%), to the appearance of the face (46%). The researchers concluded that increased overjet can be considered an important focus for early treatment and even partial correction of the malocclusion may have significant psychological benefits for a sensitive child. The dentist plays an important role in advising a patient to seek orthodontic care, a finding which is in accordance with previous studies.

Based on data presented in their report, Romani, Agahi, Nanda and Zernick suggest that both orthodontists and lay people are relatively sensitive to horizontal changes in mandibular position. They

Letters

Correction

Kusy RP, Whitley JQ, Mathew MJ, Buckthal JE. Surface roughness of orthodontic archwires via laser spectroscopy. Angle Orthod 1988; 58:33-45.

A systematic mathematical error was made in the calculations of optical rms roughness (σ_o) and optical average roughness ($R_{a,o}$). All calculations of σ_o and $R_{a,o}$, Tables, 2 and 3 and Figures 8 and 9, must be multiplied by 1.517.

I regret any inconvenience caused by the error.

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"Two-by-four" expression

I would like to comment on the term "2 x 4" that Robert J. Isaacson et al. used in their article "Activating a 2 x 4 appliance" in the Spring edition. (Angle Orthod 1993;63:17-24).

The expression "two by four" was a derogatory phrase some "full banded" orthodontists used to describe followers of the labio-lingual technique in the 1930s. The labio-lingual technique involved an appliance that used two labial arches and four first molar bands, hence two by four. As a slang expression, two by four has long implied something second rate. When the "full banded" orthodontists referred to their "two by four" counterparts, their intent was clearly not complimentary.

The use of "2 x 4" to describe an orthodontic appliance (as first used by Tom Mulligan) is not a good short cut description. Not only is it misleading, but it usually has to be interpreted as well.

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Write the Editor

The "letters" page is your opportunity to express your opinion on what you read in this magazine. Send your letter via mail:

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Editorial

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observed a high degree of sensitivity in both groups for horizontal maxillary changes of the same magnitude. These researchers used video imaging combined with a digital image processor in this study and concluded, "There is no doubt that this technology makes facial image processing fast and easy."

While one might assume a person's smile improves with orthodontic care, does the amount of improvement vary from one clinician to another? If differences do exist, what are they? Reporting on his findings, Mackley believes that to improve esthetics, one must include in every treatment plan an objective to move anterior teeth vertically, thus improving the smile line. A thorough commentary by Dr. Sheldon Peck follows this paper and will help place it in perspective.

After you read these articles, I would appreciate hearing your comments on the specific conclusions reached as well as the value of video imaging in the future of orthodontics.