Paradigm Shift

The management of temporomandibular disorders has been based on belief systems and testimonials according to the clinician's favorite theory of causation. A common premise has been that optimum health was dependent on very specific and precise morphologic criteria. An abnormal, or a variation of normal, interocclusal, interarch, or intra-articular structural relationship was believed to predispose the tissues of the masticatory system to dysfunction and/or disease. As a result, TMD treatment usually has been based on a mechanical reparative approach in an attempt to "re-establish an ideal structural relationship." However, preconceived treatment concepts based on absolute and very specific morphologic ideals, rather than functional ones, can have little relationship to health. In fact, a morphologic variation without evidence of tissue pathology can actually be a successful physiologic adaptation to any combination of intrinsic and extrinsic factors. The resulting functional equilibrium may be the most optimum morphologic relationship for that particular individual even though the morphologic relationship is not "ideal."

Because temporomandibular disorders are diverse and most often multifactorial from an etiologic standpoint rather than purely a mechanical problem, management requires a paradigm shift for most dentists. The mind-set change requires a shift from the historical singular approach, where cause and effect are thought to be known, to a multidisciplinary approach, where cause is uncertain, variable, and often convoluted. Because little is known about the natural course of TMD and because most signs and symptoms do not progress to more serious or long-term debilitating conditions, a special effort should be made to avoid aggressive nonreversible therapy. Treatment should have a favorable risk-benefit ratio, be cost effective, and be evidence based. The emphasis should be on reversible therapy that facilitates the musculoskeletal system's natural healing capacity and on patient-centered treatment that involves patients in the physical and behavioral management of their own problems.

This paradigm shift is succinctly outlined in *Guidelines—Respecting the Diagnosis and Management of Temporomandibular Disorders,* published by The Royal College of Dental Surgeons of Ontario in November 1995.[1] The Royal College guidelines contain practice parameters and standards for all Ontario dentists and are suggested for others who are concerned about appropriate standards and professional responsibilities to the public sector. The guidelines are consistent with the latest clinical evidence in the field and clearly are not so inclusive as to whitewash traditional treatments of the past. The guidelines preamble reads as follows:

> *Temporomandibular disorders are a poorly understood complex of ailments. It is generally accepted that the etiology is most often multifactorial, with various predisposing, precipitating and perpetuating factors. At present, there is no evidence to support the hypothesis that these conditions are always progressive and there is considerable evidence supporting the concept that some often remit without or despite treatment. Therefore, the need for treatment should be carefully considered and weighed in this light. A decision to treat, and how to treat should be based on a detailed clinical history and careful clinical examination and centered on conservative, reversible therapies.*
>
> *The guiding principle of any treatment must be "primum non nocere" or, freely translated, "above all, do no harm." Irreversible procedures should only be considered after attempts at treatment with more conservative measures have failed and only if the severity and/or persistence of the patient's symptoms warrant it. The relative risks and benefits of the treatment versus the untreated symptoms must always be weighed. Before any procedure that may permanently alter the patient's dentition or jaw relationships is initiated, the patient must be well informed of the risks and therefore be a party to any decision to proceed.*
>
> *Re-evaluation during the course of treatment is equally important to ensure that the course is appropriate.*

The treatment of TMD appears to be shifting in the direction of a multidisciplinary biopsychosocial management protocol and away from the more

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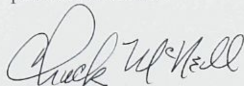
mechanical, reparative approaches of the past. As the immediate past director of the National Institute of Dental Research Dr Harold Löe said at the 1994 International Workshop on Temporomandibular Disorders and Other Chronic Orofacial Pain Conditions,[2] "There is a time when a field of science takes off, a time when events crystallize in the presence of a new paradigm and a critical mass of investigators.... It happened in periodontal disease research 30 years ago and it is happening in pain research now."



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Editorial Chairman

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