

# Assessing the Need for Dental – Chiropractic TMJ Co-Management: The Development of a Prediction Instrument

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**INTRODUCTION:** Historically the evolution of interdisciplinary care of temporomandibular joint (TMJ) began in the last 20th century. It may be that for some proportion of patients who eventually develop a full-blown TMJ disorder, there is an adaptive stage whereby the related musculature in the cervical spine and other posturally related muscles may be able to accommodate so as to mitigate TMJ restriction or crepitus. The challenge for dentists, planning to treat a patient with TMD, remains a guessing game as they continue unaided in attempting to determine whether or not a patient would prophylactically benefit from chiropractic co-treatment in order to prevent the onset or minimize the effect of musculoskeletal symptoms secondary to dental TMD intervention. The purpose of this paper is to help begin the process of developing an assessment tool for dentists to assist them in determining when a patient might not be able to easily adapt to related postural changes that may occur secondary to dental modifications of occlusion or TMJ balancing.

**METHODS: Qualitative Assessment of Risk Factors:** In-depth interviews were conducted with groups of dentists specializing in the treatment and the consistent request from the vast majority was the need for a tool to guide them in determining which patient's would best benefit from chiropractic co-treatment. **Development Of A Predictive Tool:** Based on the preliminary interviews and a review of existing, valid and reliable measures, a preliminary assessment tool that measures the following five domains was developed; (1) musculoskeletal manifestations (2) the patient's perception of pain, (3) somaticization of psychological stress, (4) physiological reserves to deal with stress and (5) the patient's self-reported quality of life. **Preliminarily Selected Instruments:** The preliminary assessment tool will be composed of three instruments: (1) A general questionnaire which will address the patient's physiological reserve, level of

pain tolerance, level of psychological health and their fear avoidance behavior. (2) The general symptom survey for musculoskeletal dysfunction determines if the patient has had a history or is currently suffering from cervical (headaches, neck, shoulder, and hand pain) or locomotive or balance (lower back, knee, or foot pain) dysfunction(s). (3) The functional evaluation form tests proprioceptive abilities, static and dynamic postural balance tests and cervical ranges of motion.

**DISCUSSION:** The interviewed dental professionals observed that posture can be a determinant of occlusion functionality outcomes in some of their patients. They have identified a need for an assessment instrument that would help them to identify patients who may be at risk so that referral could be made before the initiation of occlusion modification. The goal of the assessment form, which includes functional analysis tests, is to help determine which “appropriate situations” or conditions are best for referral for chiropractic care.

**CONCLUSION:** While the selected assessment instruments were not originally developed or validated for their predictive capabilities, they are posited to measure health domains that may have some transferability to measuring predictive factors associated with the development of musculoskeletal reactions secondary to dental TMJ treatment. As new data becomes available, this instrument will be modified to reflect improved understanding of predictive elements. Concomitant with the development of a predictive assessment tool is the process goal of expanding interdisciplinary dialogue, which may help lead to standardization of TMJ dysfunction terminology and a “common language”. A starting point is needed and a reasonable attempt has been made to begin the daunting process of developing an instrument that would help inform dentists as to which patients may be likely to become symptomatic to peripheral musculoskeletal regions secondary to occlusion modification.