Psychological Aspects of TMJ Syndrome
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There is an apparent relationship between TMJ dysfunction and illness behavior; in addition, numerous studies suggest that the onset of TMJ symptoms is precipitated by stressful life events. States of emotional arousal or poor oral habits may act to prolong TMJ-associated pain.

Clinical psychology has traditionally been concerned with emotional problems in mental illness; therefore, the psychological study of TMJ syndrome and other physical disorders has been quite recent. Moss and Gramling (1984) suggest that increased collaboration between dentists and psychologists is part of a larger trend in the field of psychology termed behavioral medicine.

Behavioral medicine has evolved from a growing recognition that many health problems are a direct result of life-styles and habits destructive to health. Through the use of current psychological techniques (including behavior modification and biofeedback), it has been found that health practices can be positively influenced. Behavioral medicine has also rejected previous dualistic theories that considered the mind and body to be separate entities. The involvement of psychologists in dental research and care has, in part, been inspired by the developing field of behavioral medicine, and may potentially add new perspectives to both professions.

Illness Behavior

The concept of illness behavior was introduced by Mechanic in 1962. This approach considers the cultural, personal, social and situational forces that affect the various ways in which individuals perceive, evaluate and act in response to bodily events. This concept encompasses areas such as pain recognition, the use of medical or psychological services and an individual's proclivity to seek release from normal obligations.

Speculand et al. (1984) compared the illness behavior questionnaires of 100 TMJ dysfunction patients and 100 dental control patients grouped by age. Results indicated that the TMJ patients were more convinced of the presence of an organic disease, were more likely to show disturbances of mood such as anxiety or depression, and were less likely to deny the existence of problems in their lives; these patterns were generally constant regardless of age. Speculand et al. also compared TMJ subjects to intractable pain patients from a pain clinic. They found that the illness behavior of the TMJ sample was more akin to the behavior of normal control patients than to that of pain clinic subjects. (See also Chapter 12, Intensity of Pain and Suffering, in Courtroom Medicine: Pain and Suffering. New York: Matthew Bender and Co., Inc., 1979.)

Emotional Arousal and Oral Habits
It was the work of Schwartz (1955, 1956, and 1958), which originally suggested that TMJ pain was the result of heightened muscular tension and resultant spasm of the muscles of mastication. States of emotional arousal or poor oral habits were considered necessary for the development of such muscular tension.

Other investigators have also looked at the role of oral habits in the development of TMJ dysfunction. Specifically, examinations of TMJ behavior patterns have included diurnal and nocturnal bruxism; biting of the lips, tongue or side of the mouth; chewing on pens or pencils; thrusting the jaw forward; or resting the chin or side of the face on the hand. In a clinical study, Trenouth (1979) reported a relationship between nocturnal bruxism and facial pain. Moss et al. (1984) reported that diurnal bruxism was associated with TMJ pain and that nocturnal bruxism was associated with a combination of TMJ pain and jaw muscle pain. Results from these studies demonstrate that exposure of individuals to emotionally arousing situations produces heightened tension responses in the jaw musculature.

In addition, sustained unilateral bruxism appears to result in edema with associated pain. TMJ patients are distinguishable from other clinical samples by virtue of engaging in higher rates of nocturnal and diurnal bruxism. Accordingly, it would appear that states of emotional arousal as well as specific oral behaviors provide sufficient circumstances for the development of TMJ pain.

**Stressful Life Events**

In general, life events research has attempted to show a chronological association between illness onset and a concomitant increase in the frequency of events that require adaptive behavior. A greater number of events is expected to have a greater effect on the individual. The life events most often studied by psychologists include marriage, bereavement or loss of employment, since it is assumed that these occurrences may serve to precipitate the onset of illness or disorder.

Past research has shown an association between life change and the manifestation of a variety of disorders including myocardial infarction, accidents, athletic injuries, diabetes and psychiatric disorders. With regard to TMJ dysfunction, there have been a number of studies (e.g. Speculand et al, 1984) which suggest that 50 to 75 percent of TMJ dysfunction patients experience stressful life events prior to the onset of their symptoms.

**References**

• Schwartz, L. (1958).