EFFECTS OF TRAIT ANXIETY, SOMATOSENSORY AMPLIFICATION, AND FACIAL PAIN ON SELF-REPORTED ORAL BEHAVIOURS

Chow J*, Cioffi I
Department of Orthodontics, Faculty of Dentistry, University of Toronto, Toronto, Ontario, Canada

Purpose: Oral behaviors are activities like gum chewing, teeth clenching and biting of objects that go beyond normal functioning demands and contribute to the onset of temporomandibular disorders (TMD). Somatosensory amplification refers to the tendency to experience somatic sensations as intense, noxious, and disturbing and is related to bodily hypervigilance. Clinical experience suggests that individuals with bodily hypervigilance also present with occlusal hypervigilance, and continuously check their occlusion. This study aimed at investigating whether somatosensory amplification and trait anxiety, a characteristic correlated with hypervigilance, are associated with a greater incidence of oral behaviors, and verifying how self-reported facial TMD pain affect this relationship.

Methods: The State-Trait Anxiety Inventory, the Somatosensory Amplification Scale, the Oral Behavior Checklist (OBC) and the TMD-Pain Screener Questionnaire were filled out by 255 university students with self-reported facial TMD pain (PAIN group; 47 subjects, 24.8±4.2 years) and without pain (CTR group; 208 subjects, 26.0±4.8 years) using a web survey.

Results: Trait anxiety, somatosensory amplification and OBC scores were greater in the PAIN than CTR group (all p<0.05). Trait anxiety and somatosensory amplification were positively associated with the frequency of oral behaviors, as measured with the OBC (all p<0.05). A significant effect of the interaction study group*trait anxiety (p=0.028) on OBC scores was found.

Conclusions: Individuals with greater trait anxiety and somatosensory amplification have more frequent oral behaviors. The relationship between anxiety and oral behaviors is affected by concurrent facial pain. Clinicians should evaluate patients’ anxiety and somatosensory amplification before starting dental treatment.