

OROFACIAL PAIN REMISSION DUE TO A MULTIDISCIPLINARY APPROACH

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Brittney, a 32-year-old female, suffers from significant recurring facial and cervical pain.

OROFACIAL PAIN

Orofacial pain is a general term covering any pain or discomfort felt in the mouth, jaw, face, or head region. According to a national health and nutrition examination survey conducted by the Center of Disease Control and Prevention, 21.7% of the United States population is affected by pain in the orofacial region, costing 32\$ billion each year (CDC, 2002). The field of Orofacial Pain is concerned with the prevention, evaluation, diagnosis, and the treatment of patients with complex chronic orofacial pain and dysfunction disorders, oromotor and jaw behavior disorders, and chronic head and neck pain.

The Orofacial Pain Clinic is one of the first clinics in the United States dedicated to helping patients suffering from various facial pain disorders originating from nonodontogenic origin. The average patient seen at this clinic has been suffering from pain in the orofacial pain region for about 46 months. Approximately 42% of the patients treated in this clinic have muscle pain, 24% suffer from temporomandibular joint (TMJ) pain, 14% neuropathic pain disorders, 5% present with a complaint of headaches as the primary chief complaint, and 16% suffered from pain elicited by other craniofacial structures, e.g., toothache, sinus, ear, etc. This clinic employs an interprofessional healthcare team, an orofacial pain specialist, a physical therapist, and a psychologist, collaborating to manage patient care.

BRITTNEY

Brittney presented in March of 2012 with a recurring pain in the head and neck area since 2005. Britney reported she previously had consultations and received

treatments by physicians and dentists with limited to none improvement in her overall pain.

At the initial appointment with the interprofessional team, Brittney described the pain as dull and aching with an intensity of 6-7/10 in the preauricular and masseter muscle area, which was aggravated by jaw function and stress.

Additionally, Brittney reported having a throbbing headache with the same pain intensity located in the base of the skull. She indicated having these headaches for many years, and experiencing the headaches as much as 3-4 days per week. Occasional use of Percocet and tramadol were reported as relieving factors. Brittney mentioned that stress and poor posture exacerbated her headaches. Furthermore, Brittney complained of dull, constant moderate pain located in the neck area.

Brittney admitted to daytime and nighttime teeth clenching. She also reported a past history of emotional abuse, depression, and anxiety. She recognizes that she internalizes her stress, and noticed that her personal stressors amplified her pain. She denied previous psychotherapy, psychiatric treatments, and past or current suicidal ideations.

Clinical examination revealed a generalized tenderness upon palpation of the masticatory and cervical muscles. She presented a normal range of mandibular function and no TMJ sounds were identified. We diagnosed Brittney with centrally mediated myalgia, chronic tension-type headache, and cervicalgia.

Following examination of the interprofessional team, we recommended Brittney physical-self regulation skills training (PSR) and physical therapy sessions. A low dose of amitriptyline (10 to 30mg at bedtime) was prescribed as a preventative medication for headaches. At a one month follow up, Brittney reported almost complete resolution of her face and neck pain (1/10) after practicing the PSR skills and physical therapy exercises. She expressed significant satisfaction with her progress and reported high motivation to continue to gain mastery of PSR. It is noteworthy that Brittney did not need to take the medication due to successful pain control gained with non-pharmacological approach.

EFFECTIVENESS OF PHYSICAL SELF-REGULATION (PSR) ON PATIENTS WITH OROFACIAL PAIN

PSR is a brief skills training program design to help manage stress, pain, and habits like teeth clenching and grinding. The goal is to alter the physiology accompanying pain. Carlson et al. conducted a study to evaluate the physiological and psychological characteristics of a group experiencing chronic orofacial muscle pain

compared with a healthy pain-free age-match population. Their findings indicated that patients with masticatory muscle pain exhibit greater levels of depression and anxiety disorders than healthy controls. Additionally, they stated more fatigue and sleep disturbances. Also, patients with masticatory muscle pain presented increased pain sensitivity to pressure stimulation in the orofacial region. Finally, lower diastolic blood pressure and decreased end-tidal carbon dioxide levels were noted upon subjects with masticatory muscle pain. Thus, it seems appropriate to aim the therapy not only to pain but also the physiological response of the patients in chronic pain. (Carlson et al. 1998)

A randomized study compared the effectiveness of PSR training vs. standard treatment for temporomandibular disorders. Standard treatment consisted of self-care instructions (soft diet, relax jaw during the day) and use of stabilization appliance during the night. At eight weeks, both groups indicated a reduction in pain severity and life interference, improvement in perception of life control, and greater mouth opening without pain. At 26 weeks, the PSR group reported less pain intensity and greater opening with and without pain compared to the standard treatment group. Therefore, PSR training is not only effective in the short term but also is an effective long-term therapy for pain reduction and mouth opening in patients with TMD. (Carlson et al. 2001)

TABLE 1
Three Sessions

Session 1	Session 2	Session 3
Performed by orofacial pain specialist and psychiatrist	Performed by orofacial pain specialist and psychiatrist	Performed by orofacial pain specialist and psychiatrist
<ul style="list-style-type: none"> - Explain the role of pain - Monitor and reduce muscle parafunction - Proprioceptive awareness - Improvement of sleep onset - Position oriented relaxation training - Physical activity - Nutrition/fluid intake 	<ul style="list-style-type: none"> - Review sections - Diaphragmatic breathing 	<ul style="list-style-type: none"> - Check progress

The PSR training is performed and evaluated by the behavioral team, orofacial pain specialist and psychiatrist, in three sessions (50 minutes each). The program follows a structure explained in (Table 1, above), and patients often report a sense of control and improvement in their pain intensity.

DISCUSSION

Management of chronic orofacial pain is a complex feat, and oftentimes requires a multidisciplinary approach in order to obtain a comprehensive evaluation and treatment. Chronic pain affects the quality of life of patients, and it is frequently associated with higher levels of depression and anxiety (Haviv et al. 2017). Due to the latter, a team with not only orofacial pain specialists but also psychologists, is needed in order to tackle the different entities related to the pain condition and improve the treatment outcomes. Although lacking some methodological standards, several studies have demonstrated the effectiveness of the multidisciplinary effect in pain management (Aronoff, Evans, and Enders 1983). Not only psychologists, but also physical therapists trained in managing chronic pain are much needed in this field, in order to provide the patient with the best treatment experience. In times were the opioid crisis calls for effective pain management, as healthcare providers, we have an obligation towards our patients to look for alternative treatment options that can help us avoid such tragedies. Brittney presented with a long history of chronic pain accompanied by psychological comorbidities and sleep disturbances. Teamwork with an orofacial pain specialist, a physical therapist, and a psychologist, provided both patients the opportunity to own their pain and manage it and their associated factors.

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