

## Temporal Mandibular Joint Disorder Management with Integrative Medicine Practices

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### Abstract

The temporal mandibular joint is an essential structure of the body frequently used within a day, thereby having a crucial role in a person's quality of life. Temporal mandibular joint disorders (TMD) are degenerative musculoskeletal disorders affecting a significant proportion of the population with a rising incidence. This disorder primarily affects young individuals and is more prevalent in women. The etiology of TMD is believed to be multifactorial, and there are many factors about TMD that have not been elicited. The uncertainty of its cause makes it difficult to be diagnosed or treated. For that reason, it is crucial to attempt other forms of treatment other than the existing conventional one to improve symptoms or entirely treat these disorders. This review paper analyzes the use of some integrative medicine practices, more specifically acupuncture and chiropractic, in treating TMD symptoms and future directions to establish their efficacy which could help in promoting their usage.

### Introduction

The Temporomandibular joint (TMJ) is one the most used joints in the body, it connects the mandible to the skull and is composed of an articular disk, bone, fibrous capsule, fluid, synovial membrane, and ligaments; and is used for speech and mastication. [1] Temporal Mandibular Joint Disorders (TMD) are a very common class of degenerative musculoskeletal disorders affecting up to one in four. These disorders are more prevalent in the young population and women. [2] Patients with TMD present most commonly with headaches, pain with chewing, TMJ sound, difficulty opening mouth and jaw locking, affecting quality of life, thereby motivating to seek treatments. [3] Otolaryngological symptoms although less common can also occur in patients with TMD such as earache, tinnitus, hearing loss and sore throat. [4] A study concluded that the etiology of TMD is multifactorial involving physiological, genetics and

psychological factors. The complexity of TMD makes it difficult to be diagnosed and treated with the proper modality. [5] This review aims to examine the efficacy of two practices of integrative medicine: Acupuncture and Chiropractic care as adjunctive treatment for TMD while also presenting further steps that would provide more insight into their effectiveness and help promote their use.

### Acupuncture and TMD

Acupuncture is an alternative therapy that uses needle insertion and manipulation in specific points of the body for healing purposes. It dates back from early Chinese history and is today an important part of traditional Chinese medicine. The idea of acupuncture centers around restoring balance to the inner life energy flow "qi" responsible for our health. [6] Acupuncture has gained popularity in the United States as a valuable and safe adjunctive therapy

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for pain relief. It has been demonstrated to be more efficacious for pain relief than the conventional treatments or worked when traditional medicine had failed. [7] The evaluation of acupuncture for TMD did not appear to reduce characteristic pain intensity on a clinically significant level. Hence the use of acupuncture not as a stand-alone therapy for pain relief. [8] On another note, the possibly psychological etiology of TMD makes it challenging to draw any conclusion about the efficacy of acupuncture just yet. A patient receiving acupuncture compared with a patient who underwent sham acupuncture both reported a decrease TMD pain, creating the suspicion of an existing placebo effect; similar results were found in a meta-analysis. [9,10] Acupuncture is shown to be effective in TMD with the use of 7 meridian points (ST 6, ST7, SI 18, GB 20, GV 20, BL 10 and LI 4). [11] In the end, more research is needed to elicit the true benefits of this treatment.

### Chiropractic and TMD

Chiropractic treatment utilizes manual techniques for adjustment of the musculoskeletal system to prevent or treat neuromusculoskeletal disorders. It originated from the United States and was developed by Daniel David Palmer in 1895 (Salehi et al., 2015). [12] The field has recently been experiencing growth as integrative medicine has become more accepted and is the largest complementary and alternative medicine profession in the United States. [13] It offers patient education, exercises, soft tissue massage and is most used by patients with chronic low back pain. [14]

Chiropractic treatment performed on patients with low back pain resulted in reduced pain and increased joint mobility. [15] A study of TMD patients receiving chiropractic care via suprahyoid pressure and activator methods showed a significant reduction in their pain post treatment. [16,17] Although providing some encouragement for the use of chiropractic as adjunctive therapy in TMD, there are far too few of these studies, leaving the need for a lot of research in this field.

### Conclusion and Future Directions

In this review, we analyzed the use of acupuncture and chiropractic care in their ability to ease TMD symptoms in addition to conventional treatment. Enough evidence exists to support the benefit of using these integrative medicine practices in the management of TMD specifically for chronic pain symptoms which can be debilitating. However, there remains questions about the most optimal treatment mainly since the etiology of TMD is still not completely understood. Other limitation also includes the fact that both acupuncture and chiropractic care have not been extensively studied

in terms of treating TMD. Acupuncture as a personalized medicine cause treatment to vary amongst patient making it very difficult to completely evaluate. Further research in both this discipline is warranted to get more insight as to whether they will benefit patients. Research should also be done to determine the optimal way to employ acupuncture or chiropractic where the patient would see the most improvement. An additional factor that would come into play when determining whether to use integrative medicine for TMD would be cost. More precisely, the willingness of insurance companies to cover these expenses. Insurance would also be dictating the number of session that it would cover for patients which brings back the importance determining the optimal therapeutic protocol. In conclusion, integrative medicine practices of acupuncture and chiropractic presents a promising alternative or adjuvant treatment of TMD motivating for more research to solidify their utility and help further promoting their use.

### References

1. Alomar X, Medrano J, Cabratosa J, et al. (2007). Anatomy of the Temporomandibular Joint. *Seminars in Ultrasound, CT and MRI*. 28(3): 170-183.
2. Murphy MK, MacBarb RF, Wong ME., Athanasiou KA. (2013). Temporomandibular disorders: a review of etiology, clinical management, and tissue engineering strategies. *The International journal of oral & maxillofacial implants*. 28(6): e393-414.
3. Feteih RM. (2006). Signs and symptoms of temporomandibular disorders and oral parafunctions in urban Saudi arabian adolescents: a research report. *Head & Face Medicine*. 2(1): 25.
4. Ferendiuk E, Zajdel K, Pihut M. (2014). Incidence of Otolaryngological Symptoms in Patients with Temporomandibular Joint Dysfunctions. *BioMed Research International*. 2014: 824684.
5. Chisnoiu AM, Picos, A. M., Popa, S., Chisnoiu, D., Lascu, L., Picos, A., & Chisnoiu, R. . (2015). Factors involved in the etiology of temporomandibular disorders - a literature review. *Medicine and Pharmacy Reports*, 88(4), 473-478. 88(4): 6.
6. Chon TY, Lee MC. (2013). Acupuncture. *Mayo Clinic proceedings*. 88(10): 1141-1146.
7. Patil S, Sen S, Bral M, et al. (2016). The Role of Acupuncture in Pain Management. *Curr Pain Headache Rep*. 20(4): 22.
8. Şen S, Orhan G, Sertel S, et al. (2020). Comparison of acupuncture on specific and non-specific points for the treatment of painful temporomandibular disorders: A randomised controlled trial. *Journal of oral rehabilitation*. 47(7): 783-795.

9. Zotelli VLR, Grillo CM, Gil MLB, Wada RS, Sato JE, da Luz Rosário de Sousa M. (2017). Acupuncture Effect on Pain, Mouth Opening Limitation and on the Energy Meridians in Patients with Temporomandibular Dysfunction: A Randomized Controlled Trial. *Journal of Acupuncture and Meridian Studies*. 10(5): 351-359.
10. Jung A, Shin BC, Lee MS, Sim H, Ernst E. (2011). Acupuncture for treating temporomandibular joint disorders: a systematic review and meta-analysis of randomized, sham-controlled trials. *Journal of dentistry*. 39(5): 341-350.
11. Rosted P. (2001). Practical recommendations for the use of acupuncture in the treatment of temporomandibular disorders based on the outcome of published controlled studies. *Oral diseases*. 7(2): 109-115.
12. Salehi A, Hashemi N, Imanieh MH, Saber M. (2015). Chiropractic: Is it Efficient in Treatment of Diseases? Review of Systematic Reviews. *Int J Community Based Nurs Midwifery*. 3(4): 244-254.
13. Lefebvre R, Peterson D, Haas M. (2012). Evidence-Based Practice and Chiropractic Care. *J Evid Based Complementary Altern Med*. 18(1): 75-79.
14. Hartvigsen J, French SD. (2020). So, what is chiropractic? Summary and reflections on a series of papers in Chiropractic and Manual Therapies. *Chiropractic & Manual Therapies*. 28.
15. Moehlecke D, Júnior LAF. (2017). Effectiveness of Chiropractic adjustment in lumbar pain in crossfit practitioners. *Coluna/columna*. 16: 193-197.
16. Pavia S, Fischer R, Roy R. (2015). Chiropractic Treatment of Temporomandibular Dysfunction: A Retrospective Case Series. *Journal of Chiropractic Medicine*. 14(4): 279-284.
17. DeVocht JW, Schaeffer W, Lawrence DJ. (2005). Chiropractic treatment of temporomandibular disorders using the activator adjusting instrument and protocol. *Alternative therapies in health and medicine*. 11(6): 70-73.

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