Content available at: https://www.ipinnovative.com/open-access-journals
The Journal of Contemporary Orthodontics
Journal homepage: https://jco-ios.org/

Editorial

Overtreatment in TMD: The case for behavioral and conservative care

Maria Maddalena Marrapodi[1,2], Hande Uzuncibuk[3], Diana Russo[4], Nicola Fiorito[4], Crescenzo Diego Del Sesto[4], Antonio Regina[4], Silvia Piccolo[5], Giuseppe Minervini[4*]

[1]Saveetha Dental College and Hospitals, Saveetha Institute of Medical and Technical Sciences (SIMATS), Saveetha University, Chennai, India
[2]Dept. of Woman, Child and General and Specialized Surgery, University of Campania "Luigi Vanvitelli", Naples, Italy
[3]Dept. of Orthodontics, Faculty of Dentistry, Trakya University, Edirne, Turkiye
[4]Multidisciplinary Dept. of Medical-Surgical and Odontostomatological Specialties, University of Campania “Luigi Vanvitelli”, Naples, Italy
[5]Dept. of Biomedicine and Prevention, University of Rome “Tor Vergata”, Rome, Italy

Received: 17-12-2025 **Accepted:** 02-03-2026 **Available Online:** 01-07-2026

This is an Open Access (OA) journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: reprint@ipinnovative.com

Temporomandibular disorders (TMDs) are a key area of interest in dental practice, leading to mismanagement as TMDs are highly complex. Dentists without specialized training in TMDs often recommend invasive and inappropriate therapies such as full-mouth prosthetic reconstructions and occlusal adjustments to these disorders that are believed to "cure" the conditions. However, these treatments often obtain perceived benefits through the placebo effect rather than their actual effectiveness.

The extensive exploration of the placebo effect in the TMD literature has demonstrated a noticeable disconnect between clinical treatment and physiological recovery. Experience in the literature demonstrates that patient self-reported responses can improve upon intervention-initiated or sham, implying that the (often self-reported) "ritual" therapy may itself be therapeutic. This is especially significant in emotionally sensitive patients whose stress is associated with chronic orofacial pain. Psychological cues, like a perceived complexity, the financial cost, a perceived physical invasiveness of the procedure, like a full-mouth reconstruction, are powerful for the aforementioned people.

They are a type of psychological reassurance that greatly reduces levels of anxiety and stress. As anxiety and stress are key factors underlying the persistence of TMD symptoms, this emotional relief is often reflected as transient physical pain reduction, leading to an “illusion of efficacy”. Therefore, the patient and practitioner might mistakenly attribute the improvement to the invasive mechanical adjustment when it really came from the psychological impact of the care. This masks a real absence of physiological improvement and entraps the patient in a cycle of unwanted, irreversible, expensive dental treatment, which does not rectify the root behavioral and psychosocial mechanisms of the disorder.

Indeed, journals such as the Journal of Oral Rehabilitation and Journal of Orofacial Pain repeatedly emphasize not only the psychological dimensions inherent in TMD but also stress and anxiety as important — if not dominant — factors contributing to its onset and persistence.[1]

Evidence shows that behavioral treatments, such as cognitive-behavioral therapy, stress management techniques, and self-care, can achieve significant pain and functional gains without resorting to invasive treatments. For instance, Randhawa et al. argue that such kind of interventions do contribute to considerable improvement.[2]

The placebo effect for TMD treatment is thoroughly studied. A study published in the Journal of Oral Rehabilitation investigated the difference in outcomes between sham compared to active treatments and found that patient self-reported outcomes tend to improve regardless of what type of treatment is used. This issue is even more salient among emotionally sensitive TMD patients, for whom the complexity and invasiveness of a suggested therapy may be perceived as a sign of its effectiveness.[3,4] Such therapies bring psychological reassurance which means that anxiety and stress are lowered and a perception of improvement is temporarily made even in the absence of scientific validity to the treatment. The Cranio Journal has also addressed the anxiety and stress in TMDs and it also pointed out that these issues not only worsen the symptoms but directly affect the patients’ impressions on the therapy.[5,6] This is why intrusive

*Corresponding author: Giuseppe Minervini
Email: giuseppe.minervini@unicampania.it

https://doi.org/10.18231/j.jco.14848.1779969270
© 2026 The Author(s), Published by IP Innovative Publication Pvt. Ltd..

treatments can look like they're working: a patient's sense of emotional relief masks the lack of actual physiological benefits.

The same journals have identified behaviorally oriented treatments, in combination with education and patient empowerment, to have excellent treatment effects in TMDs[5] As compared to surgical treatments, such treatments address psychosocial underpinnings of disease, and provide evidence-supported and long-lasting relief.[7]An integrated approach to TMDs must provide accurate diagnosis and point attention to evidence-supported, noninvasive treatments. Over-treatment not only exposes patients to unnecessary risks and costs but also perpetuates a cycle of mismanagement where the placebo effect disguises improper therapeutic choices.[8] Dentists must be cautious in proposing therapies for TMDs, recognizing that invasive procedures are rarely justified and that their apparent success often stems from their psychological impact rather than therapeutic merit.[7,9,10] The dental community must increase awareness for continued education and a shift toward multidisciplinary management, including psychological and behavioral therapies into routine care.[11,12] In doing so, we minimize the utilization of placebo-driven interventions and ensure that TMD patients receive care truly representative of the best available evidence.

Conflict of Interest

None.

References

1. Asquini G, Pitance L, Michelotti A, Falla D. Effectiveness of manual therapy applied to craniomandibular structures in temporomandibular disorders: A systematic review. *J Oral Rehabil* 2022;49(4):442–55. https://doi.org/10.1111/joor.13299
2. Randhawa K, Bohay R, Côté P. The Effectiveness of Noninvasive Interventions for Temporomandibular Disorders: A Systematic Review by the Ontario Protocol for Traffic Injury Management (OPTIMa) Collaboration. *Clin J Pain.* 2016;32(3):260–78; https://doi.org/10.1097/AJP.0000000000000247
3. Christidis N, Al-Moraissi EA, Al-Ak'hali MS, Minarji N, Zerfu B, Grigoriadis A. et al. Psychological treatments for temporomandibular disorder pain—A systematic review. *J Oral Rehabil.* 2024;51(7):1320–36; https://doi.org/.1111/joor.13693
4. Haddad D, Millican E, Maxwell L, Wirianski A. Treatment options used in the management of people with temporomandibular disorders by Australian dentists and physiotherapists. *J Oral Rehabil.* 2024;51(10):2102–13; https://doi.org/10.1111/joor.13802
5. Zieliński G, Suwała M, Szkutnik J, et al. Evaluation of the effectiveness of selected physiotherapeutic techniques at trigger point in myalgia form of temporomandibular disorders - randomized controlled trial. *Cranio.* 2025;43(6):958-68. https://doi.org/10.1080/08869634.2024.2402577
6. Yekkalam N, Novo M, Wänman A. Treatments related to temporomandibular disorders among patients with prevalent types of Ehlers-Danlos syndrome in Sweden. *CRANIO®.* 2025;43(4):698–709. https://doi.org/10.1080/08869634.2024.2319565
7. Minervini G, Lucchese A, Perillo L, Serpico R, Minervini G. Unilateral superior condylar neck fracture with dislocation in a child treated with an acrylic splint in the upper arch for functional repositioning of the mandible. *CRANIO®.* 2017;35(5):337–41. https://doi.org/10.1080/08869634.2016.1203560
8. Garrigós-Pedrón M, García IE, Domínguez-Gordillo AA, Del-Castillo-Pardo-de-Vera JL, Gil-Martínez A. Temporomandibular disorders: improving outcomes using a multidisciplinary approach. *J Multidiscip Healthc.* 2019;12:733–47; https://doi.org/10.2147/JMDH.S178507
9. Palmer J, Penlington C, Durham J. Supported self-management in temporomandibular disorders: A systematic review of behavioural components. *Oral Surg.* 2023;16(2):228–36; https://doi.org/10.1111/ors.12773
10. Van der Meer HA, van der Wal AC, Van Hinte G. Counselling for patients with a temporomandibular disorder: A scoping review and concept analysis. *J Oral Rehabil.* 2024;51(11):2484–97; https://doi.org/10.1111/joor.13827
11. Vaid NR, Hansa I, Bichu Y. Smartphone applications used in orthodontics: A scoping review of scholarly literature. *J World Fed Orthod.* 2020;9(3):S67–S73; https://doi.org/10.1016/j.ejwf.2020.08.007
12. Venugopal A, Vaid N, Bowman SJ. Outstanding, yet redundant? After all, you may be another Choluteca Bridge! *Semin Orthod.* 2021;27(1):53–56; https://doi.org/10.1053/j.sodo.2021.03.007

Cite this article: Marrapodi MM, Uzuncibuk H, Russo D, Fiorito N, Sesto CDD, Regina A, Piccolo S, Minervini G. Overtreatment in TMD: The case for behavioral and conservative care. *J Contemp Orthod.* 2026;10(3):283-284.