



TMJ News Bites

Issue 3 2021

TMJ Disorders...More Complex than Most People Realize

Over the years, many of you have told us that, in addition to experiencing the jaw pain and dysfunction of TMD/TMJ, you suffer one or more other pain conditions such as headache, irritable bowel syndrome, or fibromyalgia—statements backed up by research studies.

Indeed, the committee of scientists publishing the recent monumental [National Academy of Medicine study on Temporomandibular Disorders](#) recognized the complexity in TMDs in its introduction, noting that it uses “the broad definition of TMDs as a set of diseases and disorders related to alterations in the structure, function or physiology of the masticatory system *and that may be associated with other systemic and comorbid medical conditions.*” The term “chronic overlapping pain conditions” has now been adopted to describe these comorbid problems; we are devoting this issue of *TMJ News Bites* to articles that focus on them.

The following articles highlight the central nervous system and the immune system, and illustrate the importance of delineating risk factors that may help in diagnosing and treating conditions that overlap with TMJ.

Chronic Overlapping Pain Conditions: What Do They Share in Common and What Are the Risk Factors?

Heather Bowersox, a 36-year-old medical biller and single mother of a teenage son, lives with multiple pain conditions: temporomandibular disorder (TMD), migraine, back pain, and irritable bowel syndrome (IBS). While those conditions might seem unrelated, Bowersox believes they share common threads. Researchers, too, are looking for those recurring characteristics which link seemingly unrelated conditions that keep showing up together.

Bowersox is far from alone. For many people, one condition leads to another, so that they live with what have come to be called chronic overlapping pain conditions (COPCs). The growing list of COPCs that tend to cluster together includes fibromyalgia (FM), TMD,

interstitial cystitis (IC)/painful bladder syndrome, IBS, endometriosis, vulvodynia, chronic low back pain, chronic migraine, and tension-type headache. People with chronic pain – and these COPCs in particular – also often suffer from non-pain conditions like sleep and mood disorders, cognitive dysfunction, and fatigue. [Read more here.](#)

Living with Chronic Overlapping Pain Conditions

In 1999, Lisa Schmidt went to see her doctor about headaches. But, instead of diagnosing the migraine headaches Schmidt believed she was experiencing, the doctor thought she had a temporomandibular disorder (TMD, also commonly referred to as TMJ). He referred her to an orthodontist who could make a dental splint for her jaw. The splint locked her jaw, necessitating the first of 12 surgeries.

"I ended up on the surgery carousel," said Schmidt, now a patient advocate with the TMJ Association. Today, in addition to TMD and migraine headaches, Schmidt has also developed chronic neck and back pain, and was recently diagnosed with a joint disorder associated with chronic pain, Ehlers-Danlos syndrome. "It's been a hellacious ride," she said. [Read more here.](#)

Sufferers of Chronic Pain Have Long Been Told It's All in Their Head. We Now Know That's Wrong

It started with headaches and neck pain, but no sooner had Tricia Kalinowski's physiotherapist come up with a strategy to tackle these problems, then another area of her body would start to hurt: her lower back, her hip or her jaw.

"The physio was chasing the pain up and down my body," says Kalinowski, 60, from Minneapolis, US. Eventually, she was referred to an oral surgeon, who believed the root cause of these issues was a problem with one of the joints in her jaw, so she underwent surgery to replace a thumbnail-sized disc.

Unfortunately, the replacement was defective, triggering an immune reaction that resulted in the loss of several inches of jawbone. It took 13 rounds of surgery to fix the damage – the last of which was performed in 2015. "The irony to all the surgeries is that I still have headaches, I still have neck pain, and nobody really knows quite what to do about it," she says.

[Read full article here.](#)

Research Finds Fibromyalgia to be an Autoimmune Problem

New research from the Institute of Psychiatry, Psychology & Neuroscience (IoPPN) at King's College London, in collaboration with the University of Liverpool and the Karolinska

Institute, has shown that many of the symptoms in fibromyalgia syndrome (FMS) are caused by antibodies that increase the activity of pain-sensing nerves throughout the body.

The results show that fibromyalgia is a disease of the immune system, rather than the currently held view that it originates in the brain.

The study, published today in the Journal of Clinical Investigation, demonstrates that the increased pain sensitivity, muscle weakness, reduced movement, and reduced number of small nerve-fibres in the skin that are typical of FMS, are all a consequence of patient antibodies.

[Read full article here.](#)

Comorbid Conditions in Temporomandibular Disorders Myalgia and Myofascial Pain Compared to Fibromyalgia

ABSTRACT

Objective: The impact of comorbidities in fibromyalgia (FM) and temporomandibular disorders (TMD) has been well documented, but whether TMD sub-diagnoses myalgia (MYA) and myofascial pain with referral (MFP) differ regarding comorbidity is unclear. We aimed to elucidate this by studying the presence and associations of comorbidities in FM, MFP and MYA.

Materials and Methods: An extended version of the Diagnostic Criteria for TMD axis II questionnaire was used to examine demographics, pain and comorbidities in 81 patients with FM, 80 with MYA, and 81 with MFP.

Results: Patients with MFP and FM reported a higher percentage of irritable bowel syndrome (IBS), depression, anxiety, somatic symptoms, perceived stress, and insomnia compared to MYA. Patients with FM had more IBS, depression, and somatic symptom disorder versus MFP. After adjusting for confounding variables, participants with anxiety, somatic symptoms disorder, pain catastrophizing, and perceived stress, as well as a greater number of comorbidities, were more likely to have MFP than MYA, whereas FM participants were more associated with IBS, somatic symptoms and insomnia compared to MFP. The number of comorbidities was significantly associated with widespread pain but not pain duration, body mass index or being on sick leave.

Conclusion: In conclusion, patients with MFP were more similar to those with FM regarding comorbidity and should be differentiated from MYA in clinical settings and pain management.

Source: [Barjandi G, Kosek E, Hedenberg-Magnusson B, Velly AM, Ernberg M. Comorbid Conditions in Temporomandibular Disorders Myalgia and Myofascial Pain Compared to Fibromyalgia. Journal of Clinical Medicine. 2021; 10\(14\):3138. <https://doi.org/10.3390/jcm10143138>](#)

The FDA Wants to Hear From You

The U.S. Food and Drug Administration (FDA), is requesting that TMJ patients complete a short survey by **Sunday, August 15**. The survey will inform the FDA about your perspectives regarding the use of Artificial Intelligence (AI) and Machine Learning (ML) in medical devices used to manage TMJ (now or in the future) at home or in a health care facility.

FDA is planning a workshop in the fall of 2021. Your responses to this survey will help FDA shape the workshop. In addition, the information collected will help the FDA understand your concerns about the use of AI/ML in managing your condition with a medical device.

This survey should take about 10 minutes to complete. By clicking on the link and starting the survey, you are providing consent to participate. https://fdacdrh.co1.qualtrics.com/jfe/form/SV_5pOTHWmAckxKfno

What is AI and ML?

Artificial intelligence (AI) is a technology that can use computers to help humans better and more quickly understand complex medical information.

Machine learning (ML) is a type of AI that lets computers learn from new information over time.

For example, if you go to a dentist for a problem with your tooth, the dentist might take an image of your tooth using a machine/medical device that uses AI/ML to help determine if there is a problem with it. If the AI finds a problem with your tooth, the device will tell the dentist. The dentist may then send you to a specialist, like a periodontist or oral surgeon, for expert care. The specialist will check your tooth and may tell the device whether it correctly found a problem. The ML in the device can use this information to improve its ability to correctly find problems. This is how the device is “trained.”

Clinical Study Opportunities

Investigation and Modulation of the Mu-Opioid Mechanisms in TMD (in vivo)

Volunteers needed for a research study using Magnetic Resonance Imaging (MRI) and Positron Emission Tomography (PET) imaging in people who suffer from TMD and in healthy controls to identify factors that may be correlated with the severity of TMD pain.

Major Inclusion Criteria:

- Age 18-65 (inclusive)
- Chronic TMD pain and dysfunction for at least one year
- No history of other neurologic, systemic or chronic pain disorders

Participation Involves:

- Neuroimaging scans: fMRI, PET
- Compensation for each visit completed, totaling up to \$650

The H.O.P.E. (Headache & Orofacial Pain Effort) laboratory, University of Michigan, is a multidisciplinary collaborative effort to investigate the brain as a research and therapeutic target in chronic trigeminal pain disorders. The study is funded by the National Institute of Health.

For more information:

<https://UMHealthResearch.org/#studies/HUM00110179>

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E-mail: contactHOPE@umich.edu

Online Study for People with Chronic Pain Treated with Daily Opioid Medications

The VALUE study is looking for adults who have chronic pain, are taking daily oral prescription opioids or continuous delivery through an opioid patch, and are not currently tapering or reducing their opioid medications.

Adults from across the U.S. are invited to participate in this study to help us learn about people's experiences to help future patients, families, and doctors make medical decisions about the best treatment for their chronic pain.

Participants stay in this online-only study for 1 year and are asked to complete 3 online surveys (baseline, 6 months, and 12 months). Study investigators will ask you questions about your pain, medications, how you are feeling and doing, and how well your medications are working for you.

Participants will NOT be required to attend any office visits or make any medication changes. Participants may receive up to \$150 for completing 3 surveys and 3 brief phone calls to confirm their medications.

The study is conducted by researchers at Stanford University (Palo Alto, CA). For more information: Please contact VALUE study coordinator Hannah Cunningham at hunning@stanford.edu or 1-833-668-0277.

Learn more: <http://med.stanford.edu/pain/snapi/current-studies/value.html>

Online Survey on Fibromyalgia, Chronic Migraine, Chronic Orofacial Pain and TMD

The Pain Research Lab at Cincinnati Children's Hospital Medical Center is currently conducting a study to learn more about social and psychological functioning in young adults (ages 18-30) with fibromyalgia, chronic migraine, or chronic orofacial pain or temporomandibular disorder. The study will be done entirely online and consists of completing online surveys for approximately 1 hour. Participants will be compensated via a gift card for \$15 to Target for their participation. If you are interested, please email: chronicpainstudy@cchmc.org

Vestibulodynia (VBD) UPDATE Study

Recruiting participants in the Vestibulodynia (VBD) UPDATE Study. In order to identify the most effective treatments for women with chronic vaginal pain, researchers at Duke University, The University of California – Los Angeles, and the University of North Carolina

at Chapel Hill are performing a randomized placebo-controlled blinded clinical trial. This trial hopes to better understand how women experience VBD pain in order to determine what treatments work best for different women. English-literate women between the ages of 18-50 years are eligible for immediate enrollment if they have VBD and meet certain study criteria. To learn more about the study, meet our research team, and enroll, please visit our [UPDATe Study](#) website.

University of California San Diego Study on Chronic Low Back Pain

The Brain Mechanisms of Pain and Health Laboratory at University of California San Diego is conducting a National Institutes of Health (NIH) Clinical trial examining the effects of meditation on chronic low back pain. They are looking for patients between 18-65 years of age that have been suffering from chronic low back pain for at least three months. The study requires seven days of patient involvement with one month to complete the study. Patients will be compensated \$400 for completion of the study. For additional information, including a complete description of the study at the Altman Clinical and Translational Research Institute at UCSD, please feel free to contact zeidanlab@ucsd.edu and/or call (858) 246-2028.

UCSD is conducting another NIH clinical trial examining the effects of meditation on chronic low back pain. They are looking for individuals with chronic low back pain who are 18-65 years of age. This 16-part study may take up to 48 days to complete. Participants will undergo bodily maneuvers, noxious heat, brain imaging, meditation interventions, and cognitive testing. Brain imaging will take place in a magnetic resonance imaging (MRI) scanner located at the UCSD campus. Participants will be compensated \$780 for successfully completing the study. The study is located in the San Diego County region. In order to participate individuals should contact zeidanlab@ucsd.edu and/or call (858) 246-2028.

Pain Management for Dental Medicine in 2021: Opioids, Coronavirus and Beyond

This article was recently brought to our attention and is from a set of papers from a symposium held to highlight the role of dental medicine in management of oral-facial pain in light of the opioid crisis and the continuing coronavirus epidemic.

ABSTRACT

Over the past year our attention has inevitably been on the coronavirus pandemic, the health and welfare of our families, patients, and office staffs, as well as the re-opening of our dental practices. In addition, the opioid crisis continues, is very likely to worsen as a result of the pandemic and continues to be a challenge to Dentistry. National public health issues and healthcare disparities continue and have created a global concern for providing evidence-based, adequate pain management in the dental setting. We have brought together a group of national thought leaders and experts in this field who will share their insights on the current state of opioid prescribing in Dentistry and describe some of the exciting work being done in advancing pain management.

The learning objectives for this conference proceedings were:

1. Describing the implications of current public health concerns for safe and effective pain management in dental medicine.
2. Identifying risk factors and understanding the current guidelines for the use of opioid and non-opioid medications in dental medicine.
3. Analyzing the interprofessional collaborations necessary for effective pain management in dental medicine.
4. Recognizing the challenges and opportunities brought about by the COVID-19 pandemic for the dental profession.
5. Applying evidence-based strategies for managing the complex pain patient in the dental setting.
6. Appraising new and future modalities for the assessment and management of orofacial pain.

Link to full article: [Scrivani SJ, Keith DA, Kulich RJ, DaSilva AF, Donoff RB, Handa S, Holland N, Lerman MA, McCauley JL, Reisner L, Resnick CM, Stohler CS, Vasciannie A, Fortino M, Schatman ME. Pain Management for Dental Medicine in 2021: Opioids, Coronavirus and Beyond. J Pain Res. 2021 May 24;14:1371-1387. doi: 10.2147/JPR.S319373. PMID: 34079355; PMCID: PMC8164473.](#)

About The TMJ Association...*Changing the Face of TMJ*

The TMJ Association, Ltd. is a nonprofit, patient advocacy organization whose mission is to improve the quality of health care and lives of everyone affected by Temporomandibular Disorders (TMJ). For over 30 years, we have shared reliable information on TMJ with people like you. We invite you to visit our website, www.tmj.org.



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