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The Virtues of Osteopathic Manipulative Treatments in Patients with Opioid Use Disorder

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The Virtues of Osteopathic Manipulative Treatments in Patients with Opioid Use Disorder

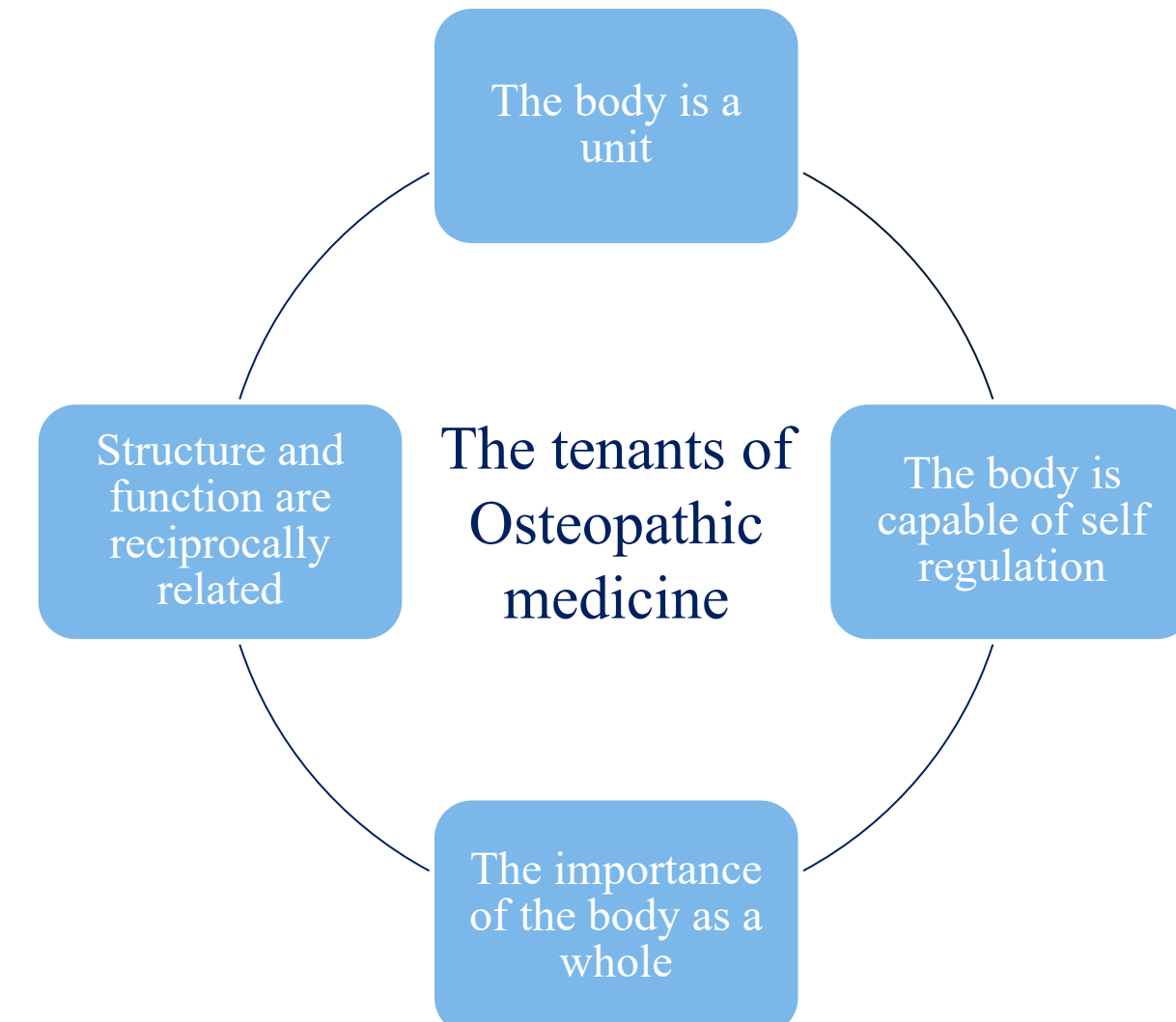


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Background

- o The opioid epidemic continues to rise in the United States
- o Numerous treatments are available for opioid use disorder (OUD)
- o Multiple factors play a role in the development of a substance abuse disorder, considering them all is essential for guiding treatment
- o Osteopathic manipulative treatments (OMT) can be widely used in patients with OUD
- o OMT can be found to decrease the time and discomfort associated with OUD recovery
- o OMT in combination with traditional pharmacology was associated with reduction of somatic pain, higher success with MAT, as well as lowered costs.
- o Special considerations for patients with trauma history associated with OUD are established
- o Importance of hands on patient interaction in the COVID-19 era
- o OMT in conjunction with pharmacological methods reduces the overall burden of OUD

Introduction



These tenets can be applied in the context of OUD, a complex, multi-system disorder in which there are changes in the structure and function of the brain and other organs due to the chronic use, misuse, and abuse of opioids.

One of the primary goals of osteopathic manipulation is to promote the body's natural inclination toward homeostasis. In patients with OUD with disruption in homeostatic mechanisms, both physiologically and somatically, OMT can be used to restore the proper balance and enhance recovery.

When using opioid medications, patients with OUD have an exaggerated reward response via dopaminergic pathways which can reinforce the repeated use and lead to the maladaptive behaviors. We theorize that a similar reward response can be elicited while receiving OMT. By stimulating dopaminergic pathways through the viscerosomatics of OMT, we predict general improvements in each patient's health, including his/her overall physical and mental well-being.

COVID Considerations

- o Social distancing has led to abrupt cessation of many people's joyful outlets for stress and coping
- o Multiple medical practices began enforcing telehealth visits
- o The peak pandemic time showcased increased substance use
 - o Between 2020-2022, it was found over 13% more people abused alcohol and/or opioids
- o OMT is preformed in person and requires repeated treatments
 - o Repeated visits increase patient physician trust alliance
 - o Visits allow patients the chance to leave the house and have human interaction
 - o Proper PPE can be used while performing OMT techniques (masks, gloves, gowns, etc)
 - o Increased trust allows for patients to more likely take their physician's advice
 - o Trusting physicians allow for more frequent and longer one-on-one contact

Trauma Considerations

Many patients who suffer with substance use disorders also have (i) comorbid trauma histories and (ii) special consideration needs which have to be heeded when touching patients who have experienced any kind of physical or sexual trauma in their past. It is important to initiate trauma evaluation compassionately by gently asking about the following parameters:

1. Screening for exposure to traumatic event
2. Potential triggers for trauma
3. Symptoms associated with trauma (fear, horror, etc.)
4. Detailed understanding of exposure
5. Full psychiatric evaluation screening for PTSD, suicidal ideation, and risk assessment

By taking the time to assess patient boundaries and comfort, providers are able to better foster patient-physician connections that can help aid in the path to healing. Suggestions include the following:

1. **Communication.** Using layman's terms, make the nature of the technique known and what area of the body is being worked on.
2. **Model.** Use models and safe skin areas to demonstrate pressure, temperature, and any assistive devices associated with the technique utilization.
3. **Boundaries.** Set clear expectations with your patient prior to any touching about areas they would want you to avoid.
4. **Witness.** For the duration of the treatment, have the same gender health care worker as the patient present in the room.
5. **Time Option.** Offer multiple shorter sessions for the patient to help ease them into the process and new stimulation.
6. **Soft techniques.** Any soft tissue should be handled with pressure in accord with patient's comfort level.
7. **Discussion.** Open discussions with the patient to assess the mental and physical feelings that emerge from treatment.
8. **Interpersonal.** Referring patients with trauma for both medical management as well as EMDR, CBT, and other types of psychotherapy.

Results

1. The reduction of subjective pain

Autonomic-centered OMT treatments normalize the sympathetic or parasympathetic response. Some possible OMT treatments that have been suggested for conditions like anxiety or elevated heart rate include, but are not limited to, the following:

- o Occipitoatlantal (OA) release, rib raising, Cervical/thoracic/lumbar soft tissue (ST), or myofascial release (MFR).

By implementing techniques that negate these sympathetic symptoms, patients will be less subjected to withdrawal symptoms. The perception of touch can elicit positive physical and emotional responses in patients with OUD, as mediated by a variety of neurotransmitters. Beta endorphins are known to be associated with positive affect, mood, and sense of well-being. By stimulating these same pathways, the patient may feel a familiar sense of comfort and release.

2. Fewer titration trial doses

Many OUD patients seek and receive medication-assisted treatment (MAT), including methadone and buprenorphine, to achieve remission and recovery. In one study, it was found that patients on MAT were able to remain addiction-free 60% of the time while on the medication as compared to those OUD patients on placebos. Despite the effectiveness of MAT, finding the correct dosage for patients can be a time-consuming, elongated process, which proves painful and uncomfortable for patients, as withdrawal symptoms heighten. Lymphatic techniques are able to help clear the body of toxins and inflammation, reducing the risks of infection. When lymphatic techniques are used in conjunction with MAT, OUD patients experiencing withdrawal can have less risk of infection and toxins harboring in their body. Lymphatic techniques can reduce the time and dosage of MAT necessary to obtain the most beneficial outcomes for OUD patients.

3. Reduced Cost

OMT is an option for all patients, regardless of socioeconomic status, that can be performed in the office with no equipment and is often covered by insurance. OMT is widely accepted in literature as a legitimate treatment option and represents a cost-friendly alternative to have pleasure pathways responses. OMT adds to the toolkit of primary care physicians and offers a noninvasive, low cost, and low risk option for patients. One study conducted demonstrated that osteopathic manipulation along with traditional pharmaceuticals is one of the top ten most common complementary health approaches among adults.

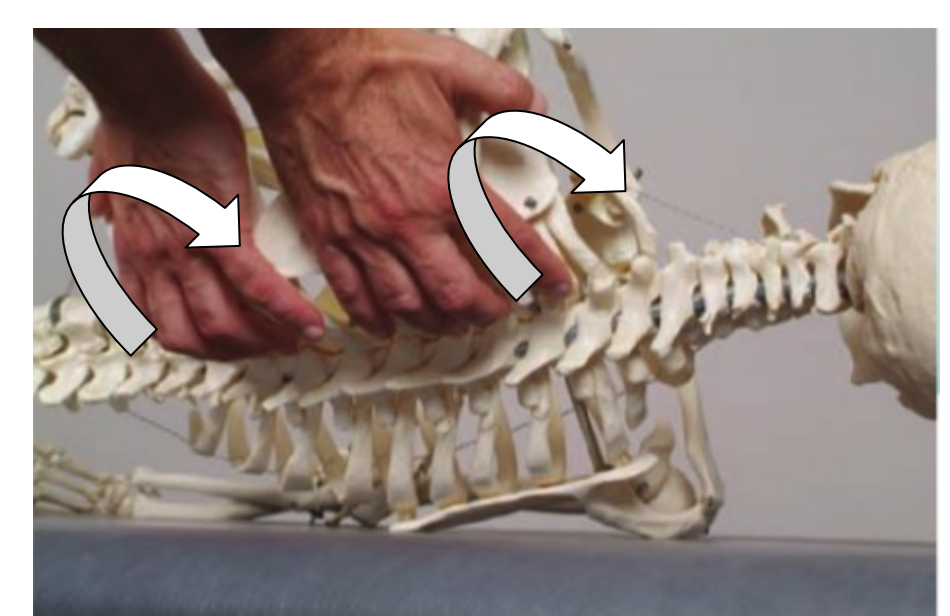
OMT Techniques

Patients with substance use disorders often experience extreme withdrawal symptoms, including vomiting, fatigue, sweats, insomnia, and delirium. We propose that there are multiple OMT techniques that can target these specific dysfunctions:

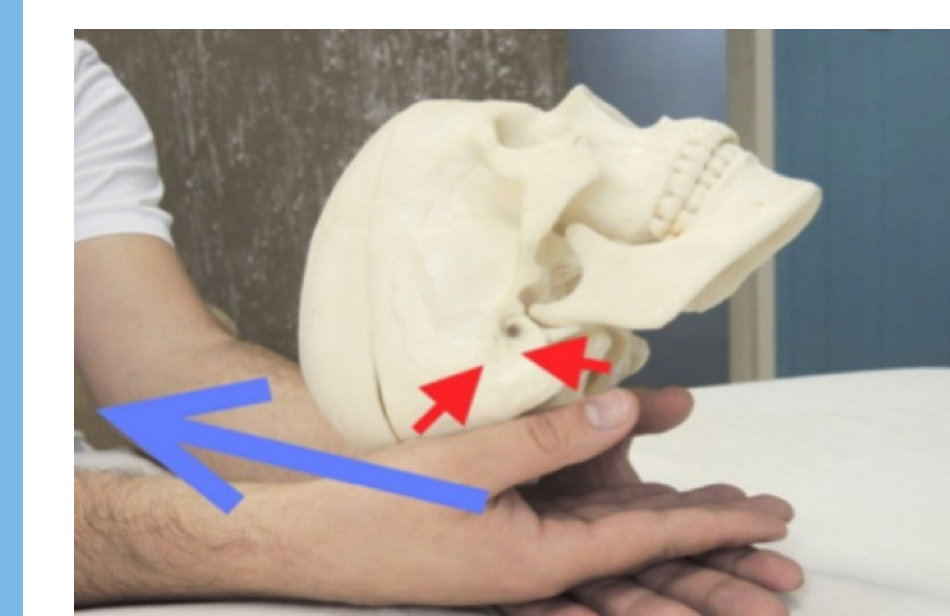
1. Stomach pain, discomfort, and tenderness can be mitigated by use of Chapman's points.
2. Lymphatic technique can be utilized for withdrawal symptoms of headache and congestion.
3. The physician can practice techniques of OCMM to help lessen the withdrawal side effects of insomnia and delirium.



Thoracic Lymphatic Pump



Rib Raising



Compression of the Fourth Ventricle



Pedal Pump

Conclusion

OMT combined with pharmacological treatment, as compared to pharmacological alone, on the OUD patient can lead to better outcomes (e.g., a decreased MAT maintenance dose, lower rate of relapse, lower admissions rates to rehabilitation programs, and improved compliance with MAT).

OMT targets the same pathways that the abused drug might, improves circulatory effects, and is widely recognized and accepted both in literature and by the insurance industry. OMT offers a cost-effective method that, when combined with pharmacological drugs, can provide the patient with maximal care.

Our research team hopes to start a deeper investigation of many of our claims. By conducting more in depth studies of the effectiveness of OMT in OUD patients, we hope to raise continued awareness of the importance of implementing OMT in daily practice with OUD patients.