

## ABSTRACT

Osteopathic manipulative therapy (OMT) fundamentally aims to remedy somatic dysfunction through the manipulation of the patient. In this regard, OMT is a particularly viable non-pharmacological adjunct for patients with depressive and generalized anxiety disorder (GAD).

In both of these disorders, the hypothalamic-pituitary-adrenal axis has an interdependent relationship with physiological stress that feed one another to both increase symptomology and leave patients vulnerable to negative life events. Additionally, pro-inflammatory cytokines acting on the brain over long periods of time can lead to exacerbation of disease and the development of depression in susceptible individuals. Altered cytokine balance has also been found in patients suffering from GAD.

Many OMT techniques seek to normalize body function; through the normalization of sympathetic and parasympathetic tone and the enhancement of blood and lymph flow.

Current research directly linking OMT and these conditions is limited, but there appears to be a potential for the use of OMT.

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## INTRODUCTION

- There is a significant prevalence of depression and generalized anxiety disorder (GAD) in the primary care population
- Osteopathic manipulative therapy (OMT) used for a number of other settings may prove useful as an adjunctive treatment in these patient populations

## OBJECTIVES

- To summarize current research of current treatments for depression and GAD
- To review and present current research involving OMT
- To link modalities of OMT that may serve to benefit the above populations

## METHODS

- A literature review was performed to assess the current understanding of and treatments of depression and GAD
- A second literature review of current OMT research was performed, particularly of treatment in patients experiencing a significant amount of physiologic stress
- Common goals of treatment were isolated between the two in order to highlight a possible new avenue of treatment

## RESULTS

- Many OMT techniques seek to normalize body function through the normalization of sympathetic and parasympathetic tone
- The physiologic stress response resulting from the over-activation of the hypothalamic-pituitary-adrenal (HPA) axis has been well measured, and raised cortisol levels have been recorded over a wide range of psychiatric illnesses especially during distinct episodes of those illnesses
- In major depressive disorder (MDD) in particular, a sustained inflammatory response in the body contributes to a chronic neuroinflammation that further activates the HPA axis creating a cyclical response
- In practice, OMT has been successful in decreasing self-perceived fatigue, stress, and depression in the medical student population, an especially high risk population
- OMT has also been shown to dampen acute autonomic and neuroendocrine responses to mental stress in healthy subjects
- There is currently a gap in knowledge in regards to efficacy of OMT as a possible addition to a treatment regimen in the primary care setting

## CONCLUSIONS

MDD and GAD are both drug-resistant conditions with a number of modalities of treatment. Both have etiologies that are not particularly well understood, and current treatment regimes vary in terms of both pharmacological and non-pharmacological treatments. Many of the associated symptoms and physiologic states that correspond to these disorders fall under the current usage of OMT, and indeed, there are case studies indicating the effectiveness of OMT techniques in similar conditions. Currently, research involving OMT for both GAD and MDD is limited. Further research into OMT's effectiveness in treating these individual variables within the context of these disorders is needed

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