# Dynamic Chiropractic



**HEALTH & WELLNESS / LIFESTYLE** 

## Is It Time to Rethink Mental Illness? (Pt. 2)

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#### The Role of Inflammation

In the scientific literature, chronic inflammatory conditions such as obesity, diabetes, malignancies, rheumatoid arthritis, and multiple sclerosis, have been associated with depression and bipolar disorder. As Najjar, et al., put it: "Certain identifiable diseases actually cause symptom patterns consistent with imagined organic brain diseases." That is to say that real, identifiable diseases actually cause symptoms we associate with non-quantifiable psychiatric disease.

Even drugs designed to stimulate an immune response by inducing inflammation are associated with "imagined organic brain diseases." In particular, immunological treatments using proinflammatory interferon alpha (IFN-alpha) for hepatitis C have been shown to increase depression symptoms. Similarly, cytokines such as interleukin-1 (IL-1), interleukin-2 (IL-2), interleukin-6 (IL-6), and tumor necrosis factor  $\alpha$  (TNF- $\alpha$ ) bear a positive relationship to negative psychiatric symptoms.

Ordinary observation tells us that when sick with the flu, many patients experience anhedonia, fatigue, reclusion and sleepiness which could be classified as "depression." But we know the patient is suffering from an inflammatory immunological reaction to a flu virus which makes them feel depressed.



Interestingly, a study found children who developed childhood narcolepsy – a rare and tragic neurological condition caused by the H1N1 influenza vaccine (2009) – were also diagnosed with a number of psychiatric diseases including major depressive disorder.<sup>15</sup>

Reason tells us that if an inflammatory condition stimulated by the wild flu virus can cause negative psychiatric symptoms, then a flu vaccine designed to stimulate an inflammatory immune response can lead to negative psychiatric symptoms as well; especially in light of the fact that this particular vaccine (H1N1 of 2009) was responsible for neurological disease in children.<sup>16</sup>

#### Chronic Disease

Chronic disease, such as rheumatoid arthritis (RA), also corresponds positively with depression and anxiety.<sup>17</sup> Patients suffering from lupus report greater amounts of depression and severe fatigue symptoms than controls.<sup>18</sup> Both depression and fatigue can be physiologically linked to immunological dysfunction, whereas the link between these symptoms and chemical imbalances in the brain is much more tenuous.

Sometimes, the emotional burden of chronic disease and alterations in life can be depressing in and of itself. This does not mean the brain is sick, but, rather, these symptoms are a normal response for a patient suffering under the burden of disease. In short, being sick can cause patients to feel depressed.

Additionally, being sick can make the patient appear insane. For example, the World Health Organization identifies diseases such as malaria, neurosyphilis, herpes encephalitis, Huntington's, leukodystrophy, Lupus, Wilson's disease, CNS trauma, CNS neoplasms, stroke, and cardiovascular disease as differential diagnoses for schizophrenia. <sup>19</sup> Succinctly, these diseases can cause patients to experience symptoms clinicians would ordinarily associate with schizophrenia.

#### **Healthy Lifestyle Factors**

Conversely, studies demonstrate an inverse relationship between healthy lifestyle factors and depression. <sup>20</sup> That is, the healthier one tends to be the less depression they will experience. For example, interventions such as exercise and weight loss demonstrate a reduction in depressive symptoms. <sup>21-22</sup> Exercise and dietary interventions aimed at reducing the risk of coronary disease also improve depressive feelings. <sup>23</sup> Likewise, dietary interventions restricting the use of "meat, fish, and poultry" tend to enhance mood quality. <sup>24</sup> In the elderly, tomato-rich diets were inversely related to feelings of depression. <sup>25</sup>

It's not that these interventions, in and of themselves, are treating depression; they are improving the overall health of the individual – and improved health ameliorates negative feelings.

In the 1960s, physicians found niacin supplementation helped patients diagnosed with schizophrenia. This treatment suggested nutritional deficiencies could be the cause for the bizarre behavior patterns normally associated with schizophrenia. Thus, by correcting functional pellagra, physicians noticed cognitive improvement in their patients. 26-27

A review published in 2016 found evidence that dietary factors such as B vitamins, omega-3 fatty acids, and dietary regulation of sugars and saturated fats had positive bearing upon disorders like bipolar, depression, dementia and schizophrenia. Again improving the health of the body tends to improve the health of the mind.

#### Chronic Fatigue

Functionally, evidence has emerged linking chronic fatigue, a symptom commonly associated with depression, to mitochondrial dysfunction. Morris and Berk (2015) opined that mitochondrial dysfunction, mediated by elevated pro-inflammatory cytokines, increased reactive oxygen species and decreased levels of glutathione; and may not only explain the pathology for diseases such as multiple sclerosis (MS), Parkinson's disease, and chronic fatigue, but also conditions such as bipolar disorder, depression and schizophrenia.<sup>31</sup>

The idea being metabolic dysfunction caused by alterations in gut biome, pharmaceutical toxicity, pro-inflammatory diet, and a sedentary lifestyle can adversely affect mitochondrial function, which then leads to numerous diseases and psychiatric symptoms.

The positive aspect of this perspective is that correcting the underlying metabolic dysfunction can be done with dietary change, exercise, vitamins, minerals, cofactors, antioxidants and herbs. Thus, by digging further into the patient's history, running additional tests, and carefully examining the patient's lifestyle, clinicians may be able to correct underlying pathologies associated with psychiatric symptoms.

#### **Practice Takeaways**

To be clear, this article is not advocating chiropractors brook the statutory limits of their scope of practice, or engage in some nebulous from of chiropractic psychiatry. Chiropractors should use skills they already possess, looking for underlying causes, dysfunction or the problems of life, rather than immediately writing off the clinical picture as an organic brain disease.

In doing so, practitioners may find that as the health of the body improves, the mind will follow. This may require more thorough examination beyond musculoskeletal factors, such as nutrition, autoimmune disease, and the endocrine system, but the benefit to our patients may be substantial.

Many members of this profession have seen firsthand how the remission of chronic disease and amelioration of chronic pain radically changes the mindset and life of a patient. Why shouldn't this apply to other mental symptoms?

Chiropractors need not fall into the reductionist trap of psychiatry, distilling feelings, emotion and life itself into neurochemicals. Despite the scientific trappings of reductionism, it has not given the world reliable objective diagnostics or efficacious treatments. Electroconvulsive therapy (ECT) and SSRIs can hardly be called improvement.

Clinicians in the future may not consider psychiatric symptom profiles as organic brain diseases, but as symptom profiles – and thus, look for other mechanisms affecting a patient's mental health. Moreover, even if we are wrong, there are no negative side effects to sound nutrition, positive lifestyle, regular exercise, and optimized structural integrity.

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