

Essential Nutrients and Psychopathology

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There are a variety of nutrients and medication that relate to psychopathology. Zuccolo [1] describes nutritional substances such as minerals, essential fatty acids, fats, amino acids, and vitamins that are not necessarily produced by the body, but rather synthesized from supplements and food. The research includes an explanation of the difference between nutrients and medications, and how various substances affect the maintenance of health and wellness, especially on mental health. The author offers some wide-range information as well as a detailed description of nutritional supplements in the role of the biophysical model in treating stress related disorders.

Interest

This particular article caught my attention because of my interest in nutrients and supplements in various aspects of growth, development and behavior. Over 29 years ago, during my first pregnancy, I familiarized myself with nutrition and gestational development, delivery and postnatal care. I was a certified lay midwife and childbirth educator with a significant focus towards healthy nutritional intake. After birthing five children, three born at home, and breastfeeding for many years, I had personal focus on the impact of nutritional intake. I have continued to maintain further interest in nutrition and the effects on mental health since entering the mental health profession.

I am currently interested in nutrients and how they may alter mood and therefore judgment, and behaviors. We have a domestic violence group and it is disheartening so many of the men have such a difficult time making permanent changes. It is as if they have a slow leak in their mental processing. Some days they seem to comprehend the changes they need to make and then something triggers their impulsivity, and is followed by acting out, despite feeling regret or remorse over the event. According to Swaab Bao., *et al.* prolonged stress, that has typically been a part of the history of many of the offenders, can cause mental health issues, but “there

is so far no evidence for any major irreversible damage” [2]. This leads to the hope that perhaps some nutrients may benefit these participants and improve cognitive retention and behavioral modifications.

Application

As a clinician, it is beneficial to understand and be familiar with nutrition as well as medication, and how both may interact, modify or interfere with a person’s biopsychological state. There are changes in nutritional intake that can alter the functioning of brain chemistry, including neurotransmitters. These may influence symptoms frequently associated with mental health disorders, such as mood, sleep difficulties, appetite, and thinking patterns. When there are either excessive nutrients or deficiencies, damage or change can occur in these neurotransmitters [3].

Since one of the populations we serve is male batterers, I am frequently reviewing literature for information regarding treatment modalities that may benefit my clients. According to Pfeiffer, there is limited research about the nutrients needed in behavioral disorders, but “there is little doubt that nutritional and biochemical chemical imbalances that can result in violent behaviors” ([4], pp. 71-72). Some enzymes, according to Zuccolo [1], can be modified or “influenced by the properties of cellular membranes” and thus alter the reuptake of various neurotransmitters such as serotonin known to be deficit in violent or impulsive offenders. Certain vitamins such as thiamine, vitamin C, have some bearing on cellular membranes and are “found to be low in delinquents” ([5], p. 6). There is evidence that the enzyme, monoamine oxidase A (MAOA) may influence the development of antisocial conduct [6]. According to Southwick., *et al.* [7] monoamine oxidase A Inhibitor (MAOI) is used in treating those who have PTSD, common among batterers, and is shown to be more efficacious than other tricyclic antidepressants with anti-panic activity. To indicate how nutrition and medication are often linked together, MAOI, is not frequently a

medication prescribed by physicians due to the dietary exclusions; although, it may be one to be considered beneficial in the treatment of male batterers [8]. It is wise for the clinician to understand the benefits versus risks of both nutrients and medications, and refer clients to further discuss this matter with their medical doctor as well as nutritionist when indicated.

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