

The Search for a Single-Nutrient Solution to Mental Illnesses Is Outdated

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Our [previous blog entry](#) showed that the knowledge that good nutrition is essential for mental health is very old. Here, we would like to talk about the misguided approach taken by many scientists over the last century of looking for a single nutrient that will have profound effects on brain function.



Two reviews we have conducted of the scientific literature on the use of vitamins and minerals for the treatment of [mood disorders](#) and [ADHD](#) found dozens of reports from about 1910 to the present. Many nutrients have been studied, including the B vitamins; vitamins C, D, and E; and calcium, chromium, iron, magnesium, zinc, selenium, choline. But scientists were not studying nutrition in the way in which humans have evolved to require nutrients, ie, consumed together and in balance. Studies generally followed a “drug trial model” by giving patients a single nutrient and seeing if their symptoms improved.

Experimental science has made great progress by adhering to the principle that only one variable can be altered at a time and all other variables must be controlled. This approach aided the post-World War II golden era of drug development. A few decades ago, though, psychologists demonstrated the value of complex independent variables, investigating multivariable, usually manualized, treatments such as cognitive-behavioral therapy. The two of us thought this debate was over and that, especially in the realm of nutrition, multivariable treatments were accepted. But one of Julia’s manuscripts on multinutrient treatment was rejected recently by a leading American psychiatry journal with one reviewer complaining, “We can’t tell which is the active ingredient.”

Has the single-nutrient, “[magic bullet](#)” approach to mental illness yielded benefits? Yes, but the benefits are consistently modest. [Calcium](#) supplementation modestly improves mood; zinc or copper supplementation modestly improves [mood](#) and can improve [attention](#); and various [B vitamins](#) administered singly modestly improve mood. Some recent research suggests that [omega-3s](#) or [vitamin D](#) administered in isolation can improve some psychiatric symptoms to a modest degree.

We acknowledge that for some physical illnesses, single nutrients can mean life or death. [Scurvy](#) is a great example of this because vitamin C can prevent and cure it. [Pellagra](#) and its psychosis can be cured with niacin therapy (more on that in our next blog entry). Also, vitamin B12 can completely eradicate [pernicious anemia](#), an illness that often presents with psychiatric symptoms. And, what woman in the Western world who is planning a pregnancy is unaware of the need to

take [folic acid](#) to prevent birth defects, although [other B vitamins](#) have also been shown to be beneficial?

What is troubling about the single-nutrient literature is that hundreds of studies and millions of research dollars have been wrongly based on the idea that a treatment must consist of just one nutrient at a time. The esteemed nutrition researcher Walter [Mertz](#) understood the fallacy in this way of thinking. Twenty years ago, he declared that all of the single-nutrient–related diseases had most likely been identified and that all future discoveries of health-related nutrition would consist of complex nutrient formulas. In the last decade or so, studies of broad spectrum or complex nutrient treatments have been conducted. We hope our future blog entries will convince you that broad-based nutrient supplementation is the most logical treatment of illnesses such as dysregulated mood, obsessions, impulsivity, hallucinations, and scattered attention, to name a few.

This blog entry is adapted from a previous entry that can be found at <http://www.madinamerica.com/2013/05/the-inane-search-for-magic-bullets-to-treat-mental-illness/>.

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