

Current progress and impact of broad-spectrum micronutrients and the future of mental health research: insight from Dr. Bonnie Kaplan



**Dr. Bonnie Kaplan,
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Dr. Bonnie Kaplan is a professor at the University of Calgary whose training is in physiological psychology and neurophysiology. Dr. Kaplan is currently involved with an organization called APRON (Alberta Pregnancy Outcomes and Nutrition) that was given a \$5 million

dollar grant from the province to research the effects of the intrauterine nutrient environment on both mother and developing fetus. Kaplan has always had an interest in nutrition, with her first published article as a PhD student was on the topic of malnutrition and mental deficiency. Her recent research has been focused on the treatment of mental symptoms with broad-spectrum micronutrients, specifically a product by TrueHope called “Empower Plus.” Broad-spectrum micronutrients include vitamins and minerals, as well as amino acids and essential fatty acids. In this interview, Kaplan shares her research and clinical experience on the effects of broad-spectrum micronutrients, discusses their benefits, and shares her insight on how these findings could change the public’s perception of mental illness.

When questioned on the research she found most valuable, Kaplan expressed that one of her favorite

parts of the Empower Plus research was the case study on Andrew, which was recently published in the British Medical Journal Case Reports. It involved the remarkable story of an eleven-year-old boy who suffered from psychosis, Obsessive Compulsive Disorder and anxiety. He gradually transitioned from his usual medications to a broad-spectrum micronutrient complex (Empower Plus) and experienced a reduction in his OCD and anxiety, as well as complete dissipation of his psychosis symptoms in only 5 weeks. After a four-year follow-up, Andrew is still doing very well on Empower.

Dr. Kaplan mentioned a similar study that was published in the Journal of Child and Adolescent Pharmacology. There was a “severely psychotic” young boy who suffered from “around 100 hallucinations per week” and was unable to attend school or even leave his house. He was “a zombie on various meds at times,” prompting his parents to seek alternative treatments. Within only 3 months of transitioning from his usual medications to Empower Plus, his hallucinations disappeared completely.

Psychosis is not the only mental symptom that appears to be alleviated by micronutrient complexes. Kaplan states, “There is research showing that broad-spectrum amino acids can reduce anxiety. The literature is mostly on people who are addicted to drugs and [the broad-spectrum amino acids] reduces the agitation of drug withdrawal.” While this example was specific to addicts, Kaplan ascertains that broad-spectrum amino acids “can also be used for generalized anxiety.”

A broad-spectrum formula has also been shown

to help those with mood instability (such as those with bipolar disorder or those who are simply severely irritable), and has even shown to be beneficial for those with autism. Kaplan says that the benefits for autistic patients has been “tremendous”. Although their autism did not disappear, autistic patients were far calmer and were less likely to require hospitalizations or permanent care when taking Empower Plus.

TrueHope, the company that founded Empower Plus, has also recently developed a new formula made specifically for the general public called “Daily Essential Nutrients.” It has been shown to be beneficial for general brain health, antioxidant function, anti-inflammatory function, and improving cognitive speed and processing.

Dr. Kaplan’s research on the benefits of Empower Plus has been based on many different methodologies of research including open-label case studies, case control studies, and two large database analyses (one with 358 adults with bipolar disorder and one with 128 children and adolescents with bipolar disorder). Various compilation studies have also been performed, including randomized trials and within-subject crossovers. There are three countries currently studying Empower Plus (New Zealand, Canada and the United States) with each research group performing independent replication studies. All the research yielded the same result: broad-spectrum micronutrients was very beneficial for those with various mental illnesses. There are currently 20 publications in peer-reviewed journals on the benefits of Empower Plus, which Dr. Bonnie Kaplan says is “phenomenal.”

The scientific research seems solid, the risks are practically nonexistent and the benefits are tremendous. So, how come broad-spectrum micronutrient complexes are not making headlines? One of the reasons Kaplan has come up with is that “people don’t accept the importance of vitamins and minerals for brain function. Every minute that you’re alive, your heart pumps about one liter of blood through your brain to deliver nutrients and oxygen. You have to ask yourself, what are you bathing your brain in? Is your blood nutrient-rich or nutrient poor?” Kaplan believes that one of the

fundamental issues is that society (specifically the younger generation) relies heavily on packaged foods that are nutrient-poor. She claims, “People are not being taught about the importance of vitamins and minerals right now and their impact on brain function.”

Another issue preventing the popularity of broad-spectrum micronutrients is that “we, as a whole generation have the magic bullet attitude. We think about one nutrient at a time.” In 2007, Kaplan and her colleagues wrote a review article reviewing the published research on nutrition and mental function, dating from 1920-2000. “What we found was that it’s almost all one nutrient and the concept of a magic bullet. ‘Oh you’re depressed, take Vitamin D.’ Your brain doesn’t work this way. [This way of thinking] is very much influenced by the fact that the drug companies are so important in our lives because that’s how we think. If you have an infection you take a single antibiotic [...] by and large we think of a pill or a drug for a problem. 80 years of research has been focused on one nutrient at a time.” In fact, it was only when David Hardy, one of the co-founders of Empower Plus, got the idea of using broad-spectrum micronutrients from working with farm animals that this “single nutrient for a single problem” mentality began to change. Kaplan remembers her initial struggle when submitting her grant application because it was believed that “no legitimate scientist would study more than one nutrient at a time. It’s a confounded experiment. We are taught to change one variable at a time, but this is not the way our brains work, we have to have these nutrients in balance.”

Kaplan speculates that society deems vitamins and minerals to be insignificant, which is why many people who have been helped by broad-spectrum micronutrient complexes such as Empower “have a hard time accepting that they’ve gotten better from something that wasn’t prescribed by a doctor, after all it’s just this ‘stuff’ we get in our food. They just can’t accept it. If you’re part of a world, a culture, that doesn’t think that vitamins and minerals are important. It’s hard to believe that the angst, that suffering, that pain, what caused you to lose your marriage, to get fired from your job, could be fixed with something as trivial as vitamins and minerals. It’s almost demeaning.”

When asked about the directionality for the future of her research, Kaplan hopes that these discoveries can lead to the de-stigmatization of mental illness. “We have to change the world for people who are mentally ill. Think of how attitudes could change if we removed the stigma of mental illness. If we discovered that the majority of people with mental illness are in fact just displaying suboptimal

nutrition, where’s the stigma in that? Just give them vitamins and minerals.” In terms of her final thoughts on Empower Plus, Kaplan says, “Empower Plus is the most studied [broad-spectrum micronutrient] complex in the world. Its success speaks for itself. It doesn’t fix everyone, not at all. There’s no magic out there, not even in a complex formula, but it really has been helping a lot of people.”