

*Gut Health is Essential for Healthy Brain Function in Children with ADHD and ASD*

Article Submission

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With all the awareness being brought forward regarding gut health and neurocounseling, the future is looking bright for our children with Attention Deficit Hyperactivity Disorder (ADHD) and Autism Spectrum Disorder (ASD). While all the tools that are available for neurocounseling are excellent in improving cognitive, emotional, and social skills, we now have additional research to support nutritional therapy to add to our toolboxes as counselors.

Even though I am a new counselor, I have spent over 25 years researching and applying nutritional therapy in my own life after being diagnosed with Chronic Fatigue Syndrome (CFS) in my early 20's. I have seen first-hand the benefits of nutritional therapy and how it affects emotional, mental, and physical wellbeing, especially as I reversed the symptoms of ADHD with both of my own two children. As a teacher, I have also seen the increase in children with ADHD, ASD, and other mood and anxiety disorders that could be greatly combatted with supportive counseling and nutritional therapy protocols. As I begin my journey as a counselor in the schools and private practice, I can't imagine not grasping the opportunity to add nutritional therapy for my clients.

Improving gut health can have a dramatic effect upon mood and cognitive functioning due to its healing nature within the immune and nervous system. The use of nutritional therapy to support gut health in children as well as adults builds resilience and supports the bottom-up aspect of neurocounseling that understands and recognizes the bidirectional connection between our gut and our brain.

**Current Statistics:** Currently ADHD affects approximately 11% of the population of children ages 4-17 (CDC, 2015). ADHD is a chronic mental health and neurological condition that is

currently increasing at a rate of 5% per year, since 2006 (CDC, 2015). In addition to these figures, ASD is also on the rise. According to the CDC (2015), ASD affects approximately 1 in 68 in the United States. It is estimated to be 1 in 25 by the year 2025. In addition, ASD is currently five times more likely to occur in boys than girls and has been increasing in frequency of 123% since 2002 (CDC, 2015).

The fact that both of these conditions are on the rise at these current rates in our children should be a cause for serious concern. As a parent and a teacher, I have observed the increasing demand put upon caregivers and professionals that these chronic health conditions are bringing. Many counselors are responding by offering neurocounseling and other proven therapies to assist with behavioral issues, emotional regulation, and cognitive needs. Neurofeedback is also proving to offer improved and brain function that is sustained after treatment ends along with cognitive behavior therapy. Since nutritional therapy supports brain function, the two work in synchronicity for a client's well-being.

There has been much discussed and debated on the issue of diet with children that have ADHD and ASD. Many parents have noted that removing certain foods has shown to reduce symptoms of the disorders. There has been a general recognition that gluten and sugar as well as other allergens have had a negative effect upon these children. Even though these irritants seem to cause increased symptoms in many children, the underlying gut health situation is the actual culprit here. The gut ecosystem is a system that needs to be in balance. The gut is balanced when good bacteria and yeast exist in a healthy ratio within the digestive tract. When this balance is disturbed, food sensitivities and allergies can be noticed. When gut health is restored there is a reduction in food allergens and children can once again consume gluten and other supposed no-no's in a moderate amount (Campbell-McBride & Gates, 2007). Children with

ADHD and ASD have shown remarkable improvement and overall symptom reversal by using food healing protocols that increase healthy gut microbes (Campbell-McBride & Gates, 2007). This can be a great relief and blessing for families that have been following a strict gluten and casein free diet. Imagine the joy of a parent that can once again allow their child to attend birthday parties to enjoy cake and ice cream.

**Basic Knowledge:** ADHD and Autism Spectrum Disorder are just two of the many mental and developmental disorders that can benefit from nutritional therapy that improve gut health. Gut health is important for brain health and directly affects mood and emotions. There are increasing researchers interested in the relationship between gut microbes and its connection to brain function. According to Caltech (2015) approximately 90% of serotonin is made in the gut. Caltech (2013) is also seeing the importance of studying the benefits of gut flora and its direct contribution of reducing autistic symptoms in mice and in humans.

According to Dr. Lisa E. Goehler (2014), gut microbes are responsible for the creation of most of our serotonin and numerous others neurotransmitters that are essential for healthy brain function. Serotonin is necessary for the brain to experience a positive mood and to be resilient to stress. Microbes in the gut also have the essential task to support digestion by synthesizing vitamins, fermenting things we can't digest, and producing hormones that influence our immune, endocrine, and nervous system (Goehler, 2014).

Not only quantity, but diversity of gut microbes is also important for overall health (Goehler, 2014). Goehler (2014) also states that lean individuals have greater diversity in gut microbes. Even if a heavy person has a diverse and abundant good microbe count, their health is shown to be greater than those with limited amounts of microbes (Goehler, 2014). According to Dr. Goehler (2014), heavy individuals with greater diversity of microbes experience less

problems with metabolic syndrome, cardio and neurovascular disorders. This can even be a factor in the health of heavy children.

In general, when good gut microbes are limited and displaced by toxins and yeast, digestion is impaired and leaky-gut syndrome occurs. In leaky-gut syndrome, yeast begin to take over when good bacteria have been reduced due to antibiotic use and unhealthy food choices. Yeast overgrowth causes leakage in the wall of the small intestine that allows in contaminants and undigested food into the blood stream that would otherwise not have been able to cross the intestinal wall barrier. Yeast and other pathogens can then travel to the organs and cause additional health issues. Nutritional therapy to restore balance begins with the focus of reintroducing additional healthy gut microbes back into the system. Probiotics and cultured foods seem to be a foundation piece to any effective gut healing protocol. Of course there is more science that goes with this essential piece of the puzzle that is outlined in programs of leading practitioners. The results of restoring healthy flora back into the gut for healing has yielded many positive results for many families with ADHD and ASD.

I was pleased to have found the work of two professionals that have been having similar results with ADHD and ASD reversal of symptoms with a diet based upon consuming probiotics and cultured foods. Donna Gates wrote "*The Body Ecology Diet*" and Dr. Campbell-McBride wrote "*Gut and Psychology Syndrome*" that were remarkably similar, even though they developed their work separately on opposite sides of the world. Donna Gates of California and Dr. Campbell-McBride of the UK collaborated in a video to share the similarities of results and the importance of balancing the body's digestive ecosystem. I highly recommend their video as a source of valuable information for anyone seeking to learn more about the advantages of cultured foods. It can be seen at <https://youtu.be/nLP0Ijo2CK4>.

Donna Gates and Dr. Campbell-McBride (2007) both have straight forward steps to balance digestion and they both have documented many cases of reversal and in some cases complete healing of ADHD and ASD in children, when combined with additional holistic therapies. They both recommend the use of coconut kefir and fermented vegetables as a foundation piece of their plan. They both mention that historically all cultures have had some sort of cultured food that supported gut health, but during the latter half of the 20<sup>th</sup> century this knowledge had seemed to be disregarded for our current modern diet. Introducing these foods back into peoples' diet has brought tremendous health restorative qualities for many of their clients. Having valuable resources that are in layman terms for clients to use can help support a client's wellness plan.

**Overcoming Barriers:** There are a variety of barriers that counselors will come up against if they choose to integrate food healing in their practice. First is counselor training and understanding. Clearly we as counselors did not set out to be certified in nutrition and many counselors may not want to pursue the additional certification. I have found it worth the time and energy to learn, since I can benefit by applying it in my own life and experience improved personal health as well as support my clients' needs. Clients may also feel more inclined to believe that food healing protocols can work for them if the counselor is applying in their own lives also. Whether or not you align yourself with another professional that has the credentials to offer nutritional therapy or you decide to jump in and educate yourself, your clients will benefit. The choice is obviously the counselor's to make.

As I am a recent graduate from a counseling program myself, I find that in order to move forward into practice as a neurocounselor that includes nutritional therapies, it is important for me to educate myself on the current research based approaches that are demonstrating

positive results. Current scientific research shared by Dr. Lisa E. Goehler Ph.D in her workshop titled *Understanding the Gut Brain: Stress Appetite Digestion and Mood (2014)* offers one professional learning opportunity for counselors. Of course, there are more workshops by other researchers available in addition to her work. I make it a point to include these types of workshops into my professional development plan.

Even though I am knowledgeable on food therapy and plan to constantly improve my skills, I definitely know my limits and will refer my clients to those that are experienced experts in nutritional therapy as needed. I know that one size shoe does not fit all; and, clients need an individualized plan that is suitable for their own health from a qualified health care provider.

Even if a client has begun to eat a healthier diet that is right for them, there can be barriers that prevent them from continuing a positive habit due to cultural resistance at school, work, and at home. Counseling strategies could include encouraging clients to build healthy communication and confrontational skills when responding to those who question their dietary preferences. These skills can really benefit teens that have to address their peers at a time when peer influence is of great importance in their lives.

When supporting parents with children that have ADHD and ASD issues, barriers of child taste preferences can be a serious problem. Often times these children resist the foods that will restore their gut health. Jeff Primack, in his book *Conquering Any Disease (2014)*, came up with an ingenious way to introduce delicious fruit smoothies into the diet to restore gut health in children with health issues. His research and books on food healing and smoothies has resulted in positive outcomes for children with ASD and ADHD. Soon children were demanding more healthy smoothies from their parents as their tastes slowly changed toward a diet that would support their goal for improved health.

Within private practice, barriers can be overcome by educating clients through the use of workshops and seminars. Clients could also use support groups if they feel alone and they don't receive support from their immediate family or community system. Online free forums such as the one created by Donna Gates found at [www.bedrokcommunity.org](http://www.bedrokcommunity.org) can offer testimonials and encouragement for parents that hope to help their child by integrating nutritional therapy along with other holistic protocols and counseling services.

School counselors could experience the most challenging barriers to a system that does not quite understand their role they play as a mental health supporter. The barriers in the school system could seem the most daunting to overcome. It would be interesting to see how administrators respond to the data that indicates that these conditions of ADHD and ASD are increasing and what the current solutions are available for parents and teachers to offer these children. As it is right now, the demand for effective Response to Interventions (RTI's) to address the needs of ADHD and ASD students is taking an enormous amount of time and resource planning for all school personnel, and it is only going to get more demanding. School counselors are being called upon to assist with the increasing numbers of students' behavior issues and learning needs due to the increase in ADHD and ASD diagnoses. In addition to school counselors current work load that may include extra administrative duties that keep them from being available for these students' counseling needs, school counselors are still trying to establish an identity as a counselor in a school. This is where advocating for a comprehensive school counseling program as outlined by American School Counselors Association (ASCA) can be useful as a guideline to be a change agent to support the mental health that includes nutritional support for these students.



There are a variety of ways that a school counselor can bring to light their skills to administrators and school board staff. A school counselor could offer a mental health professional development class for school staff to bring to understanding to the mental health issues that many of the students are experiencing. As a teacher I would have appreciated learning more about many of the diagnosis that I was designing 504's, IEP's, and RTI around. Most teachers don't know the criteria of how many children are diagnosed with mental health disorders. Teachers are in the trenches daily dealing with the increase of stress and anxiety issues that are related to ADHD, ASD, and other mental health disorders. They really need the support of school counselors and administrators in the times ahead with the current statistics and projected increase for ADHD and ASD.

There are other creative ways that school counselors could address wellness. An educated counselor on nutritional research could advocate with the school board and county nutritionist in order to suggest healthy food options that would be tasty for students. The schools systems seem to abide strictly by the USDA's given food pyramid graphic organizer as a guide for student nutrition. According to Luise Light (2006) the former head of research for the USDA, the food pyramid that emerged in the early 1990's was a product of business corporations and not on true science. In Light (2006), she states that all her research was overlooked for corporate interests at that time. The food pyramid has since been modified to include a higher ratio of fruits and vegetables, which is a wonderful improvement. We still need to be aware that there is more to nutrition than is included in the USDA's food pyramid graphic organizer. One missing piece of information would be the inclusion of cultural diversity considerations for healthy food choices. And, we as responsive counselors are all about responding to diversity with our clients. In Luise Light's book "What to Eat" (2006), she

explains where much of the misunderstanding in modern nutrition has come from that has directly affected our society's health and especially our most valuable natural resource, our children. Clarifying this misunderstanding could help us all understand nutrition differently.

Another opportunity for school counselor advocacy could be to work collaboratively with the health and science teachers to design lessons that align with current research. I knew of one health teacher that taught children in an impoverished neighborhood the benefits of micronutrients by bringing in a blender and creating delicious fruit smoothies. This exposure to practical solutions that tasted delicious paid off. The students could not stop talking about their lessons on food and nutrition from this progressive teacher and I heard them discussing how they were teaching their parents about healthier food options.

The future is looking hopeful for children and their families that are dealing with ADHD and ASD with the inclusion of food therapy and neurocounseling working together as we become more aware of our options in nutrition based upon current research. Obviously each child is their own unique being and will require an individualized protocol that is specific to them. We as trained counselors have been prepared to offer amazing tools for improved mental health and now we have a critical missing link to add to our toolbox. I feel that we are at an exciting time with science and counseling validating the relationship between the mind and body as never before.

*Bio:*

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*References can be given upon request.*