Behavioral Issues in Children and Alternatives to Medication Nikki Deverman

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Behavioral Issues in Children and Alternatives to Medication

Behavioral problems in children are becoming more and more common, with Attentiondeficit/hyperactivity disorder being the most common. According to the latest statistics, one in five children between the ages of 3 and 17 suffer from some form of mental disorder, loosely defined as "serious changes in the ways children handle their emotions, learn or behave (Mercola, 2013). As is so often the case, Americans want to reach for pharmaceutical fixes for our various problems. Right now, it is estimated that there are more than 6.5 million American children who have been given the ADHD diagnosis. Making this even worse is the fact that about two-thirds of these children are receiving powerful, mind-altering medication, the longterm consequences of which have never been studied. These medications, are generally the only options given to parents and it is understandable why many would try them, parents do not want their kids to fall behind. They also feel pressure from teachers whose classes are being disrupted. But there is insufficient data to prove the long-term safety of ADHD medications. Unfortunately, the root cause of behavior problems is not being addressed. Very rarely are doctors looking into nutrition, the environment and other factors that are contributing to behavior problems in children. There are other options for addressing these behavioral issues besides resorting to medication.

Behavior issues facing children today

Today, more than ever, children are struggling in school and are having a hard time managing interpersonal relationships. They are having inappropriate emotional and behavioral responses to situations in their everyday life. The most common diagnosis given for these children is ADHD. According to the Mayo Clinic, Attention-deficit/hyperactivity disorder (ADHD) is a chronic condition that affects millions of children and often continues into adulthood. ADHD includes a combination of persistent problems, such as difficulty sustaining

attention, hyperactivity and impulsive behavior ('Attention-deficit/hyperactivity disorder", 2016). Some other symptoms include frequent fidgeting or squirming, difficulty playing quietly, excessive talking and interrupting others, difficulty following through on instructions and apparently not listening. Many of these so called symptoms could describe virtually any child, or most children, on any given day.

According to the Centers for Disease Control and Prevention (CDC), approximately 11% of children 4-17 years of age (6.4 million) have been diagnosed with ADHD as of 2011 (CDC, 2016). In 2007, the state of Michigan had 8.2% of its population diagnosed with ADHD. In 2011, it had risen to 11.2% (CDC, 2016). One survey, the National Survey of Children's Health (NSCH), gathers data from tens of thousands of U.S. households on a variety of children's health issues. Comparison of data from 2003 to 2007 shows an increase in the prevalence of ADHD as reported by parents. Parent-reported rates of ADHD increased 22%, and by 2007, 7.2% of all school-aged children had a diagnosis of ADHD (CDC, 2016).

With the increasing rates of ADHD diagnoses as well as other behavior disorders, comes the prescribing of medication. Approximately two-thirds of the children diagnosed with ADHD are on some form of medication (Mercola, 2013). In allopathic medicine, some of the most common medications prescribed are stimulants including; Adderrall, Concerta and Ritalin. Also, non-stimulants including Straterra, Clonidine and Intuniv. When these medications do not work, or have side effects that the patient cannot tolerate, other drugs are prescribed. These include medications such as Wellbutrin, Lexapro, Zoloft, Effexor, Elavil, Tofranil and other tri-cyclic anti-depressants ("Drug treatments for ADHD", 2016).

As with all medications, side-effects are foreseeable. Some of the common side-effects associated with these medications include but are not limited to; sleep problems, decreased

appetite, delayed growth, headaches and stomachaches, rebound, tics, as well as moodiness and irritability. Other more serious side effects include; permanent brain damage, changes in personality, depression, and/or other hallucinations. Also, cardio toxicity and liver damage, cancer, heart attack and stroke, and sudden death and suicide.

Sadly, tens of thousands of American kids are now prescribed dangerous antipsychotic drugs before the age of five, some even before reaching 12 months of age. Children in the Medicaid system are at greatest risk for over diagnosis. According to a 2010 study, an estimated 20 percent of children are misdiagnosed with ADHD (Mercola, 2013). "The price we pay as a society for drugging our children out of objectionable behavior patterns is steep. In children, the long-term effects of drugs are typically largely unknown, while in the short term, we've seen shocking increases in violent and aggressive acts committed by teens taking one or more psychotropic drugs" (Mercola, 2013). Unfortunately we are creating a new generation of drug users, and it is apparent these drugs are already an issue for the young adult population. As of right now, ADHD drugs have gained a reputation as "cognition enhancers" among students and young professionals. Accidental overdose and/or acute adverse effects are also quite possible, as recent statistics demonstrate. According to a report published in 2011, ADHD drugs were responsible for nearly 23,000 emergency room visits. (Mercola, 2014).

Misdiagnosis of ADHD is a huge concern. Is it possible that the American school system may be promoting ADHD diagnoses? There is an interesting correlation between the rise in ADHD diagnoses and the implementation of the US Elementary and Secondary Education Act known as "No Child Left Behind" (NCLB). This program was implemented nationwide in 2002. Unfortunately, this standardized teaching method is doing exactly the opposite of what it says. According to Dr. Mercola, NCLB is in fact leaving kids "behind", in the sense that brighter

children frequently end up bored and discouraged from lack of academic challenge. And bored, discouraged children will oftentimes "act out". Another study, published by the Child Mind Institute, states "there might be another incentive behind the rise, and that is the financial benefit to schools. Many schools, especially those where the tax base is much poorer...rely heavily on federal funding to operate. Long before NCLB was enacted, many of these districts had already enacted 'consequential accountability statutes,' which penalized a school when children failed; however, often scores for children diagnosed with ADHD are not counted...thereby helping to ensure the passing test scores of the class as a whole" (Mercola, 2013).

The Causes of Behavioral Difficulties in Children

Behavioral problems clearly do exist, and do appear to be more prevalent than in decades past, with or without the ADHD label (Mercola, 2013). The question is, what's causing it? In allopathic medicine, the root cause of behavior problems is often overlooked. It is much easier, and of course much more profitable to just prescribe medication, or initiate some type of behavioral therapy. Very rarely is poor nutrition looked into, or environmental toxins, vaccine additives and agricultural chemicals. How can we expect a child to behave normally when they are fed mostly refined grains, sugars, and processed foods loaded with chemicals and deficient of all necessary minerals for proper growth and development? We can't! Also, how often do we look into the highly stimulating digital world that we live in? Or how much exercise our children are getting? These are issues that should be addressed far before medication should even be considered.

Too Much Sugar

Looking at poor nutrition in today's society, it is obvious that too much sugar is an increasing problem. According to Dr. Russell Blaylock, high sugar content and starchy

carbohydrates lead to excessive insulin release, which can lead to falling blood sugar levels, or hypoglycemia. When you become hypoglycemic, your body secretes glutamate. Glutamate is a "messenger molecule" that serves an important function in your body. However, when excess amounts of glutamate are excreted it can wreak havoc with your brain and nervous system and can cause agitation, anger, anxiety, and panic attacks (Mercola, 2008). Sugar also promotes chronic inflammation in your body, and many studies have demonstrated the connection between a high-sugar diet and worsened mental health (Mercola, 2013). A study of 265 hyperactive children found that more than three-quarters of them displayed abnormal glucose tolerance, that is, their bodies were less able to handle sugar intake and maintain balanced blood sugar levels (Prinz et al, 2012). Sugar intake and ADHD have increased in parallel in recent years. The intake of added sugars in the United Kingdom and United States has increased remarkably over the past 2 centuries, with a marked acceleration in the past 40 years in association with the introduction of high-fructose corn syrup. Today, intake of added sugars accounts for 15% to 20% of daily caloric intake in adults; in 10% of adults and in 25% of children, the intake of added sugars may be > 25% of their diets (Avena et al, 2011). In any case, when a child is regularly snacking on refined carbohydrates, sweets, chocolate, fizzy drinks, juices and little or no fiber to slow the glucose absorption, the levels of glucose in their blood will seesaw continually and trigger wild fluctuations in their levels of activity, concentration, focus and behavior. These, of course, are also the symptoms of ADHD.

Food Additives, Preservatives and Dyes

We also need to look at food additives and GMO ingredients. Americans spend about 90 percent of their food budget on processed foods, which contain a staggering number of artificial food additives, preservatives, colors and flavor enhancers. It's virtually impossible to identify

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them all and ascertain their true impact on your health (Mercola, 2008). Glutamate was mentioned earlier, this glutamate produced in your body is identical to the flavor-enhancing monosodium glutamate (MSG), which is added to thousands of food products that boost your body's glutamate load even higher. MSG is an excitotoxin, which means that it acts as a poison that overexcites your cells to the point of serious damage. MSG can cause serious side effects throughout your bodily systems, one being your neurological system. Here it can destroy neurons in a crucial part of the brain. Another additive, glyphosate, the active ingredient in Monsanto's Roundup herbicide, is used in large quantities on genetically engineered Roundup Ready crops. Research has shown that this glyphosate limits your body's ability to detoxify foreign chemical compounds. As a result, the damaging effects of those chemicals and environmental toxins are magnified, and may result in a wide variety of diseases, including brain disorders that can affect behavior (Mercola, 2013).

There is controversy whether or not food additives and dyes cause ADHD, but it's quite clear that for many children currently coping with ADHD and hyperactivity, food dyes and preservatives can exacerbate symptoms. A variety of common food dyes, and the preservative sodium benzoate (which is found in many soft drinks, fruit juices and salad dressings) do cause some children to become measurably more hyperactive and distractible. This information was concluded in a carefully designed, randomized, double-blind, placebo-controlled study published in the journal *The Lancet* (Mercola, 2008). The study also found that the E-numbered food dyes do as much damage to children's brains as lead in gasoline, resulting in a significant reduction in IQ. The results of this study prompted the British Food Standards Agency (FSA) to issue an immediate advisory to parents, warning them to limit their children's intake of additives if they notice an effect on behavior. They also advised the food industry to

voluntarily remove the six food dyes named in the study by the end of 2009, and replace them with natural alternatives if possible. While some parents figured out that dietary intervention was an effective treatment for hyperactivity and ADHD several decades ago, it was only recently accepted by the American Academy of Pediatricians (AAP) as a valid course of action ("Avoid food dyes", 2013).

Leaky Gut/Poor Gut Health

When a child has issues with their behavior, focus, or attention; right away we think there is an issue in the brain. And yes, there generally is an imbalance of important brain chemicals called neurotransmitters. But what if the problem first originated within the gut?

Our digestive system has a barrier that is designed to allow nutrients to pass through, yet keep toxins out. However, sometimes this barrier can develop gaps and become "leaky". If this happens, things that are not supposed to be outside the intestines (like toxins, proteins from foods), can leak out into the blood stream and cause our immune system to go haywire – creating inflammation, an overactive immune system, and can manifest in many different health problems (Vance, 2014). Leaky gut can explain why some foods, vaccines, additives and chemicals can affect some people, while others seem to be unaffected.

You may ask, how does the gut get leaky in the first place? There are many things that can contribute to leaky gut. Some of these things include; prolonged high stress, a viral or parasitic infection; bacterial imbalance; repeated exposures to genetically modified foods, antibiotics, steroids, or NSAIDs to name a few. Another common cause, as well as a symptom is food sensitivities. Many of the common foods linked to leaky gut are wheat/gluten, soy, dairy, certain chemicals; and inflammatory diets that are high in sugars and damaged fats.

When talking about digestive health, it may seem hard to relate brain health with it. We all are familiar with our cerebral brain, the one in our skull that is hard at work whether we are doing math problems, or puzzles. But we have another brain, inside our guts – coined "the second brain," by Dr. Michael Gershon (Vance, 2014). Our second brain is lined with a complex and extensive set of neurons, called the enteric nervous system. "Gut reaction" helps to explain what our second brain does. It guides our feelings, moods, certain behaviors, and reactions (Vance, 2014).

When there is a leaky gut, there often can be mood imbalances and neurological manifestations, because our enteric nervous system is also responsible for manufacturing important neurotransmitters that play a role in our mood and brain function. Over 90% of our serotonin, often referred to as "the happiness hormone," is found in our guts (Vance, 2014). Another important neurotransmitter involved with focus and attention is dopamine, which is involved in focus, attention and motivation. The interesting thing about dopamine, is it competes with histamine. This histamine can be elevated or depressed in people with food sensitivities and allergies.

This can help us to make sense of why digestive troubles can contribute to poor absorption, nutrient deficiencies, and imbalances in neurotransmitters and amino acids, which can drive depression, anxiety, mood disorders; and other problems like ADHD (Vance, 2014).

Electronics

It is obvious that in the past decade, the use of electronics has skyrocketed. This includes the over use of iPad's, cell-phones, video games and even TV time. According to the Kaiser Family Foundation, children, on average, spend nearly seven and a half hours each day staring at those tiny displays, up 20 percent from just five years ago, leading some experts to believe the surge of ADHD diagnosis coincides with the increase use of mobile devices, the New York Times reported (Rock, 2016).

For example, to understand the effect of electronics on the brain, take a child and hand him an iPad with a game on it. At this point, his mind is processing information much differently than another child who may be running around playing outside. If we could scan his brain, we would see that his mind is working harder to absorb the barrage of sensations, and that increased neural activity makes it more difficult for him to focus on any one task. In fact, his ability to concentrate on the game, and not anywhere else, is a hallmark sign of hyperactivity. It might look like concentration, but it isn't, at least not in the way we think of it. According to Christopher Lucas, associate professor of child psychiatry at New York University School of Medicine, the child's video games and television isn't the same form of attention he'll need to thrive in school and life (Klass, 2011). Lucas states "It's not sustained attention in the absence of rewards," he told the New York Times. "It's sustained attention with frequent intermittent rewards" (Klass, 2011). Generally, when kids play games, whether it be on an X-Box, computer or iPad, they rack up points, move to higher levels, unlock characters, etc. What this is doing is rewarding their brain with dopamine, a neurochemical that is released every time they "win". That sensation of pleasure is often the reason they love electronics, and some experts even believe they seek out gadgets because they have problems with their natural dopamine systems (Rock, 2016). According to ADHD Expert Dr. Daniel Amen, "Many ADD children literally become addicted to playing video games. Video games bring pleasure & focus by increasing dopamine release. The problem is that the more dopamine is released, the less neurotransmitter is available later on to do schoolwork, homework, chores, and so on. Many parents have told me that the more a child plays video games, the worse he does in school" (Vance, 2014). Medication, like Ritalin, attempts to control ADHD by increasing dopamine activity, so when children play these games, it's as if

they're self-medicating, giving their brain that extra boost of pleasure that their internal circuitry doesn't release.

"ADHD is 10 times more common today than it was 20 years ago," Dimitri Christakis, a George Adkins Professor of Pediatrics at the University of Washington in Seattle, said (Christakis et al, 2011). Researchers are reluctant to say whether there is a direct link between gadgets and ADHD, but there are strong parallels between the upswing in diagnoses and an increase of screen time. One important finding is that children and young adults who overdo TV and video games are nearly twice as likely to suffer from a variety of attention span disorders, according to the Journal of Pediatrics (Christakis et al, 2011).

Alternative Treatments for Behavioral Disorders

As discussed earlier, medications are the ever so popular treatment for behavior disorders, ADHD in particular. However, these medications have side effects and contribute to more problems for children and society in the future. There are plenty of alternatives and ways to prevent behavioral disorders, they are just often overlooked.

Essential Fatty Acids

We know the effects of food additives, sugar, processed food, dyes, etc. on the brain, and that they are a huge factor in the increase in behavior problems among children. So eliminating them, and increasing the amount of organic fruits and vegetables children eat is a start. But one important thing to look at is the consumption of essential fatty acids.

Essential fatty acids are critical for proper function in the body. They are essential because your body cannot produce them on their own so they must come from your diet. The two primary essential fatty acids are omega-3 and omega-6. These essential fatty acids are necessary for the formation of healthy cell membranes, for proper development and functioning of the

brain and nervous system, hormone production, regulation of blood clotting, healthy skin and hair, proper thyroid and adrenal activity and much more. However, although we do need both omega-3s and omega-6s it is becoming increasingly clear that an excess of omega-6 fatty acids can have dire consequences.

The main sources of omega-6 fats are vegetable oils such as corn oil and soy oil that contain a high proportion of linoleic acid. Our modern diet, contains an overabundance of highly processed, damaged omega-6 fats such as the man-made trans-fats, saturated fats and vegetable oils, while being deficient in omega-3's. Not only are processed omega-6 fats harmful in and of themselves, but making matters even worse, they also interfere with your body's attempt to utilize the tiny amount of omega-3 fats that it gets.

Sixty percent of your brain is made up of fat. DHA (docosahexaenoic acid), which is an omega 3 fatty acid, is a primary structural component of the brain and makes up about 15 percent to 20 percent of your brain's cerebral cortex. It's found in relatively high levels in your neurons — the cells of your central nervous system, where it provides structural support. Because your brain is literally built from omega-3 fats, it makes sense that it would play an integral role in brain function (Mercola, 2013).

A Purdue University study showed that kids low in Omega-3 essential fatty acids are significantly more likely to be hyperactive, have learning disorders, and to display behavioral problems (Gallagher, 2016). Omega-3 deficiencies have also been tied to dyslexia, violence, depression, memory problems, weight gain, cancer, heart disease, eczema, allergies, inflammatory diseases, arthritis, diabetes, and many other conditions. If you want your child to reach his or her maximum intellectual potential, the research is clear that plentiful intake of the

omega-3 fat DHA is essential. DHA is needed for brain development just as calcium is needed for bone growth.

A study published in *Plos One* in June 2013, linked low levels of DHA with poorer reading, and memory and behavioral problems in healthy school-age children (Burton et al, 2013). In another study published in the *American Journal of Clinical Nutrition* in August 2013, children who consumed an omega-3 fat supplement as infants scored higher on rule learning, vocabulary, and intelligent testing at ages 3 to 5 (Brez et al, 2013).

Omega-3's have such a great impact on your brain health and keep the dopamine levels in your brain high, increase neuronal growth in the frontal cortex of your brain, and increase cerebral circulation. So, it is no wonder children are having behavioral issues when they are lacking the key component of brain growth and development. And, how many doctors out there actually recommend omega-3 supplements to children with ADHD? Not many!

In a perfect world, children could get all the DHA needed in their diet, particularly from fish. However, with all of the contamination from industrial pollutants and toxins like mercury, PBCs, heavy metals and radioactive poisons, eating fish may not be the best choice as it exposes children to a high degree of contamination. A great recommendation for Omega-3 with DHA is Nature's Sunshine, Sunshine Heroes Omega-3 with DHA soft chews. Children can chew up to 4 soft chews per day. Barlean's Omega Swirl Flax Oil is also a great recommendation. It is rich in vital and essential Omega-3 fatty acids with the taste and texture of a fruit smoothie. This is great for adults as well. For children 4 and older only 1 Tablespoon is needed daily, and it can be taken straight or mixed into beverages, yogurt, oatmeal, ice cream or dressings.

Heal the Gut

A healthy digestive system is critical for a healthy brain, metabolism, immune system, detox channels, and overall health. A great start to improving behavioral disorders is healing our gut, our "second brain".

As mentioned earlier, with leaky gut, food intolerances are often present. Trying an elimination diet may be beneficial. This involves removing the most common foods that cause a reaction for a few weeks and then reintroducing them one at a time, with a few days in between. Note any return of symptoms. Some of the key foods/substances to remove are wheat/gluten, soy, corn, dairy, artificial colors/additives, and sugary foods. There is evidence that gluten sensitivity may be at the root of a number of neurological and psychiatric conditions, including ADHD. According to a 2011 study, celiac disease is "markedly overrepresented among patients presenting with ADHD," and a gluten-free diet has been shown to significantly improve behavior in kids (Niederhofer, 2011). The study went so far as to suggest celiac disease should be added to the ADHD symptom checklist.

As explained by Dr. Natasha Campbell-McBride, a medical doctor with a postgraduate degree in neurology, toxicity in your gut can flow throughout your body and into your brain, where it can cause symptoms of autism, ADHD, dyslexia, dyspraxia, depression, schizophrenia, and other mental disorders (Mercola, 2013). So reducing gut inflammation and optimizing your child's gut flora is a critical step. But, how do we optimize the gut flora? The ideal balance of beneficial to pathogenic bacteria in your gut is about 85 percent good bacteria and 15 percent bad. Maintaining this ideal ratio is what it's all about when we're talking about optimizing your gut health. Historically, people didn't have the same problems with their gut health as we do today for the simple fact that they got large quantities of beneficial bacteria, i.e. probiotics, from their diet in the form of

fermented or cultured foods, which were invented long before the advent of refrigeration and other forms of food preservation (Mercola, 2012).

Your intestinal microflora, also known as your microbiome, is an integral part of your immune system, and over the past several years, research has revealed that microbes of all kinds (bacteria, fungi, and even viruses) play instrumental roles in the functioning of your body (Mercola, 2015). The composition of the microbiome varies from person to person based on factors such as diet, health history, antibiotic exposures, geographic location, and even ancestry, and it's readily influenced by diet, chemical exposures, hygiene, and other environmental factors. In fact, it's become increasingly clear that destroying your gut flora with antibiotics and pharmaceutical drugs, harsh environmental chemicals, and toxic foods is a primary factor in rising disease rates.

Beneficial bacteria, known as probiotics, have been shown to counteract inflammation and control the growth of disease-causing bacteria. They produce vitamins, amino acids, absorb minerals, and eliminate toxins. They also control asthma and reduce risk of allergies, benefit your mood and mental health, and impact your weight, for better or worse (Mercola, 2015).

If you cannot get your child to eat fermented food on a regular basis, a high-quality probiotic supplement may be highly beneficial in correcting abnormal gut flora that contribute to brain dysfunction. Recommendations for probiotics include Nature's Sunshine Probiotic Eleven or Nature's Sunshine, Sunshine Heroes Probiotic Power which contains one billion friendly cultures from eleven strains of probiotics. Also, you should boost their intake of soluble and insoluble fiber, focusing on vegetables, nut and seeds, and sprouted seeds. Let your children get dirty and try to avoid anti-bacterial hand soap as it kills off both good and bad bacteria, and contributes to the development of antibiotic-resistance. Avoid antibiotics unless absolutely

necessary, and when you do, make sure to reseed your gut with fermented foods and/or a probiotic supplement.

Essential Oils

Research has shown in the last three decades that the inhalation of essential oils can significantly help children suffering from ADHD and other behavioral disorders. Essential oils are able to cross the blood-brain barrier and therefore heal the brain directly, making them an effective treatment. The blood-brain barrier is the barrier membrane between the circulating blood and the brain that prevents certain damaging substances from reaching brain tissue and cerebrospinal fluid. It is specifically the sesquiterpenes that have the ability to cross the blood-brain barrier, and they are found in abundance in essential oils. This increases the amount of oxygen in the limbic system of the brain, particularly around the pineal and pituitary glands. This leads to an increase in secretions of antibodies, endorphins, and neurotransmitters. By stimulating the limbic system, the mind's emotional and hormonal centers are affected and this has a powerful influence on children with behavior disorders (Higley, 2013).

In 2001, a study done by Dr. Terry Friedman found that vetiver oil is effective in treating children with ADHD. The case study was conducted for two years (1999-2001), and it involved 40 children between 6 and 12 years old. Twenty of the children were not diagnosed with ADHD, they served as the control group, and 20 children were diagnosed. The essential oils that were used in the study were lavender, vetiver, cedarwood and Brain Power (which is a blend of frankincense, sandalwood, melissa, cedarwood, blue cypress, lavender and helichrysum essential oils). The essential oils were tested one at a time for 30 days per oil; the children used a inhalation device at night and inhaled the essential oil about three times day when they were feeling "scattered" (Axe, 2016).

The final results were extremely promising. Lavender oil's benefits were apparent, as it increased performance by 53 percent, cedarwood essential oil increased performance by 83 percent and vetiver oil increased performance by 100 percent. The study found that the relaxing and calming properties of vetiver oil helped the children combat their ADHD and ADD symptoms, which typically include difficulty in concentrating, diminished focus, being easily distracted, difficulty with organization and following directions, impatience, and fidgety behavior. The research that is being done to support vetiver oil, and other essential oils, as an effective natural remedy for ADHD is an exciting and much-needed prospect (Axe, 2016).

As you can see, there are many essential oils that can be used to help children with ADHD and other behavioral disorders. Brain Power supports concentration and mental clarity. Frankincense is very stimulating to the limbic system of the brain. Cedarwood is calming and purifying and lavender oil is calming and relaxing to the nervous system. Peace and Calming is also a great oil as it reduces anxiety, stress and depression. Valor is detoxifying and promotes courage and self-esteem. Joy is uplifting and may help with depression. And lastly vetiver is sedating, grounding, and mood stabilizing. These oils can be diffused or applied topically by diluting 3-5 drops in a carrier oil and used as massage oil. One to two drops can also be added to bathwater (or combine with ½ cup of Epsom salt and add to warm bathwater) and bathe.

Flower Essences

Flower essences are another great option for addressing certain behaviors in children. The idea of using flowers for healing is far from new. For centuries, healers have been using plants and flowers as medicine.

At the beginning of the 20th century, Dr. Edward Bach, a British bacteriologist and homeopathic physician developed a treatment method using the essences of flowers for healing.

Dr. Bach believed that many illnesses have their roots in our mental and emotional states. According to Bach, learning to improve our outlook could lead to good health. He postulated that disease was caused by negative aspect of emotions like anger, fear and sorrow. Bach began searching for medications that could heal the soul. His search led him to flowers, plants and shrubs. He believed that the essences of certain flowers could affect our moods. He experimented by placing flower petals or leaves on his tongue. He observed how his mood was affected by different plants. Through this process of trial and error, in his lifetime, Dr. Bach was able to identify 38 flowers that could improve negative mental and emotional states and create a balance in a person's ability to connect with their full potential (Healing Center, 2001).

The 38 Bach flower essences are created by placing flowers in spring water in the sun to make a solution filled with the flower essence and sun energy. All natural ingredients are used in Bach Flower Therapy. Dr. Bach used brandy as a preservative to keep the flower essences fresh. Today, a small amount of ethyl alcohol is usually used to preserve the essences. The Bach flower essences are usually taken orally or sublingually and can sometimes be applied to the skin. Bach Flower Essences are FDA approved (Healing Center, 2001).

"Flower essences can help us recognize resolve, or release different conditioned ways of perceiving the world and can help us experience greater well-being and harmony in our lives. By creating harmony within us, we often notice distinct changes in ourselves physically, emotionally, and spiritually" (Scherer, 2003). Flower essences may stimulate physical healing, but they are mainly used to promote awareness of emotional, mental and spiritual imbalances.

Flower essences have no side-effects and can be easily taken by children. One flower essence for example, Clematis, can be used for those children who tend to day dream, lack interest in the present and are not grounded in physical reality. Gentian, may be used for those

who get easily discouraged. Impatiens for those who are irritable and impatient. And the list goes on.

Additional Alternatives

In addition to addressing nutrition, healing the gut, increasing beneficial gut bacteria and using essential oils, there are a few more strategies to relieve ADHD and other behavioral symptoms. Clearing your house of dangerous pesticides and other commercial chemicals is always beneficial. Avoid commercial washing detergents and cleaning products used on clothes, and replace them with naturally derived cleaning products free of added perfumes, softeners, etc. Replace soft drinks, fruit juices, and pasteurized milk with pure, clean non-fluoridated water. While you may believe fruit juices are a healthy option to soda, they aren't and need to be avoided as strictly as soda does. Unplug from the electronics and spend more time in nature. Researchers have found that exposing children with ADHD to nature is an affordable, healthy way of controlling symptoms.

It is obvious that the diagnosing of "behavioral disorders" is skyrocketing. We cannot expect children to behave normally when their diets contain way too much sugar, refined grains, food additives, high fructose corn syrup, dyes and preservatives and very little good fats.

Unfortunately doctors are quick to jump to medications, or perhaps behavioral therapy.

However, we rarely see them recommending healthy fats, which are crucial for brain health and development. We also rarely see them suggesting that children should be watching less TV, and stepping away from the X-Box and iPad. And we do not see them looking into the correlation between the brain and the gut, or into optimizing the overall gut health and perhaps prescribing probiotics. Children who are being raised firmly within the drug paradigm from an early age, are more likely to opt for drug treatments for other ailments in the future rather than exploring other

options. It is time to break the cycle of over-diagnosing and mis-diagnosing of "behavioral disorders", whether it be ADHD or something else. If we actually took the time to sit back and look at the way we are living, maybe we wouldn't be asking "why all these behavior problems?" We would be saying, "It's no wonder we have behavioral problems!" Mind altering medications with side effects is not the answer for these children. The answer is to start nourishing them and their rapidly growing brains with good healthy foods. Get them outside instead of in front of the TV, or their iPad or their video game! Cut the pop, cut the juice, cut the processed junk food. "The right to search for truth implies also a duty; one must not conceal any part of what one has recognized to be true" Albert Einstein.

References

- Attention-deficit/hyperactivity disorder (ADHD) in children. (2016). Retrieved from http://www.mayoclinic.org/diseases-conditions/adhd/home/ovc-20196177
- Avena et al (2011). Attention-Deficit/Hyperactivity Disorder: Is it Time to Reappraise the Role of Sugar Consumption? *Postgraduate medicine*, 123(5) 39-49.

 http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3598008/
- Avoid food dyes to reduce hyperactivity and ADHD. (2013, February 22) Retrieved from http://www.healthychild.org/easy-steps/avoid-food-dyes-to-reduce-hyperactivity-and-adhd/
- Axe, Dr. (2016). Vetiver Oil Improves ADHD, Anxiety & Brain Health.

 https://draxe.com/vetiver-oil/
- Brez et al. (2013). Long-term effects of LCPUFA supplementation on childhood cognitive outcomes. *The American Journal of Clinical Nutrition*.

 http://ajcn.nutrition.org/content/early/2013/06/26/ajcn.112.040766.abstract
- Burton et al. (2013). Low Blood Long Chain Omega-3 Fatty Acids in UK Children Are

 Associated with Poor Cognitive Performance and Behavior: A Cross-Sectional Analysis
 from the DOLAB Study. *PLOS One Journal*,

 http://journals.plos.org/plosone/article/metrics?id=10.1371%2Fjournal.pone.0066697#cit_edHeader
- CDC: Centers for Disease Control. (2016). New Data: Medication and Psychological Services

 Among Children Ages 2-5 Years (Healthcare Claims Data). Retrieved from

 http://www.cdc.gov/ncbddd/adhd/data.html

- Christakis et al. (2011). Preschoolers' Total Daily Screen Time at Home and by Type of Child Care. *The Journal of Pediatrics* 158(2) 297-300
- Drug treatments for ADHD. (2016, June 12) Retrieved from http://www.webmd.com/add-adhd-medical-treatment?page=2
- Elder (2010). The importance of relative standards in ADHD diagnoses: evidence based on exact birth dates. *Journal of Health Economics*, (5):641-56.

 <a href="http://www.ncbi.nlm.nih.gov/pubmed?term=%22Journal+of+health+economics%22%5bJournal+of+health+economics%
- Gallagher, T. (2016). ADDers are More Likely to Have Fatty Acid Deficiencies. Retrieved from http://www.mercola.com/beef/adhd.htm
- Healing Center, The. (2001). ADHD: Treatments, Bach Flower Essences and Therapy. Retrieved from http://www.healing-arts.org/children/ADHD/bachflower.htm
- Higley, A. & Higley, C. (2013) Reference Guide for Essential Oils. Spanish Fork, UT. Abundant Health
- Klass, P. (2011). Fixated by Screens but Seemingly Nothing Else. Retrieved from http://www.nytimes.com/2011/05/10/health/views/10klass.html?_r=1
- Mercola, Dr. (2008). What's in That? How Food Affects Your Behavior. Retrieved from http://articles.mercola.com/sites/articles/archive/2008/07/29/what-s-in-that-how-food-affects-your-behavior.aspx
- Mercola, Dr. (2012). How Your Gut Flora Influences Your Health. Retrieved from http://articles.mercola.com/sites/articles/archive/2012/06/27/probiotics-gut-health-impact.aspx

- Mercola, Dr. (2013). DHA Linked to Intelligence in Children. Retrieved from http://articles.mercola.com/sites/articles/archive/2013/08/19/omega-3-fat-dha.aspx
- Mercola, Dr. (2014). Raising a Generation of Pill-Poppers; How Abuse of "Uppers," "Downers," and Stimulants Threatens an Entire Generation. Retrieved from http://articles.mercola.com/sites/articles/archive/2014/05/01/antidepressants-adhd-drugs.aspx
- Mercola, Dr. (2015). Modern Life Depletes Your Gut Microbes in a Number of Different Ways.

 Retrieved from http://articles.mercola.com/sites/articles/archive/2015/05/06/modern-life-depletes-gut-microbes.aspx
- Niederhofer, H. (2011). Association of Attention-Deficit/Hyperactivity Disorder and Celiac Disease: A Brief Report. *The Primary Care Companion to CNS Disorders*, *13*(3). Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3184556/?tool=pubmed
- Rock, M. (2016) Hey Parents. What That Ipad is Doing to Your Kid is Kind of Shocking.

 Retrieved from http://2machines.com/181304/
- Scherer, C. (2003). The Alchemy of the Desert, Second Edition. Pg. 55. Retrieved from https://www.desert-alchemy.com/faq/
- Vance, S. (2014). ADHD-Could Leaky Gut be to Blame? Retrieved from http://www.livebeaming.com/2014/05/adhd-could-leaky-gut-be-to-blame/