



Alternative Treatments for Childhood ADHD from a Holistic Perspective

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Introduction

Attention-Deficit/Hyperactivity Disorder, also known as ADHD, is commonly diagnosed during childhood and is present in 6.4 million children. There has been a 53% increase in adolescent ADHD over the past decade, showing prevalence for a proper form of treatment. A common problem that comes with the diagnosis of this disorder is that there is no definitive test that can be used to diagnose a child. Medicating children for ADHD could potentially cause adverse effects that may have been avoided by using a holistic treatment. Various types of holistic treatments have been studied to see their effects on symptoms for children. This will discuss the effects of two types of holistic treatment such as diet changes and EEG Biofeedback and conclude which works better to reduce the severity of a child's symptoms.

General Background

The executive functions of the brain that are most responsible for planning, organization, control, and discipline are hindered when Attention-Deficit/Hyperactivity Disorder is active.

Symptoms:

ADHD Symptoms

Inattention	Hyperactivity	Impulsivity
<ul style="list-style-type: none">DisorganizationLack of focusDifficulty giving attention to detailsTrouble staying on topic while talking	<ul style="list-style-type: none">Fidget and squirm when seatedGet up frequently to walk or run aroundTrouble paying quietly or doing quiet hobbies	<ul style="list-style-type: none">ImpatienceHaving a hard time waiting to talk or reactBlurt out answers before someone finished asking them a question

Pharmaceutical Treatments:

- ❖ **Vyvanse** – central nervous system stimulant drug
 - ❖ Increases level of dopamine and norepinephrine in the brain
 - ❖ Effects last 14 hours
 - ❖ Benefits: improves hyperactivity and impulse control
 - ❖ Potential side effects: increased heart rate and blood pressure; depression; slowed growth; weight loss; trouble sleeping; anxiety
- ❖ **Adderall** – amphetamine
 - ❖ Benefits: improves hyperactivity, inattention, and impulse control
 - ❖ Potential Side Effects: increased heart rate and blood pressure; heart attacks and stroke; insomnia; addiction; irritability; weight loss; slowed growth
- ❖ **Ritalin** – amphetamine
 - ❖ Benefits: improves hyperactivity, inattention, and impulse control
 - ❖ Potential side effects: increased heart rate and blood pressure; drowsiness; anorexia; hypersensitivity; addiction; palpitations

Holistic Approaches

Treatments including adding more exercise into a child's day, altering their diets, EEG biofeedback, and attending behavioral therapy are some ways that ADHD can be treated holistically without using any forms of a drug. For many parents, these options feel safer as they do not have the potential side effects that pharmaceutical medications contain.

Behavioral Therapy:

The goals of this therapy are to eliminate poor behaviors and push positive behaviors and attitudes. The three main types of therapy that are utilized during this form of treatment are:

- ❖ Parent training in behavior management
- ❖ Behavior therapy with children
- ❖ Behavioral interventions in the classroom

Diet Changes

More High Protein Foods	Less Simple Carbohydrates	More Complex Carbohydrates	More Omega-3
<ul style="list-style-type: none">ChickenEggsBeansNutsCheese	<ul style="list-style-type: none">HoneySugarSweetsWhite bread	<ul style="list-style-type: none">ApplesOrangesPearsVegetables	<ul style="list-style-type: none">MackerelWalnutsOlive-oil

The most important foods to eliminate from your child's diet include:

- ❖ Sugar, gluten, food coloring, artificial additives, caffeine

Research:

- ❖ A study produced by Dr. Pelsser divided 100 children diagnosed with ADHD into experimental and control groups.
 - ❖ Phase 1: five weeks of eliminating foods with excessive sugar, additives and coloring; a 40% improvement was needed to advance
 - ❖ Phase 2: assigned foods with specific IgG levels during a double-blind observation that included both researchers and the child's family
- ❖ Concluded that **64%** of the children she studied experienced a statistical significance in the reduction of their ADHD symptoms
- ❖ Additionally, a recorded **23.7%** improvement of symptoms supports the benefits of an elimination diet



EEG Biofeedback

An EEG device, known as an electroencephalograph, is used to measure electrical brain waves to identify patterns. Children diagnosed with ADHD are said to have a deficit of beta waves and an increased level of theta waves. The focus of this treatment is to train the brain to decrease the level of theta waves and push the brain to release an increase of beta waves.

- ❖ Audio and visual cues are performed as the physician monitors the patient's brainwaves until they are displayed at the desired frequency.
- ❖ Once this occurs, the patient will be alerted, showing them that they have achieved the proper level of brain arousal

Research:

- ❖ Over the course of six months, participants attended 40 45-minute sessions where they were exposed to training in suppressing theta activity and enhancing beta activity.
 - ❖ IQ tests and parental behavior rating scales were done before and after the participants received treatment
- ❖ There was only a **9-point** increase on the median when scoring improvements for a child's symptoms and IQ test

Conclusion/Analysis

Examples of pharmaceutical treatments that are most commonly prescribed to children are Vyvanse, Adderall, and Ritalin. Their advantages are known for treating symptoms associated to ADHD, but it is important to recognize their potential consequences. Diet changes proved to be the most successful option in terms of a holistic approach to treatment. It is vital that when a child is diagnosed with Attention-Deficit/Hyperactivity Disorder, the parent works closely with their healthcare provider to determine which method of treatment will work best for their child.

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