Is CBD appropriate for pediatric disorders?

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Childhood is considered a time of good health. Certainly, it is not routinely accepted that marijuana-type-products would be useful to support and promote childhood health. As a clinician who manages difficult childhood cases, particularly autistic-spectrum disorders, this author must look widely for whatever benefits are available for these children.

For the first time since the enactment of the Marijuana Tax Act in 1937, Americans have access to cannabinoids, the alkaloids found in cannabis, the plant that provides both industrial hemp and marijuana. Over the last several years, many people have reported the benefits of using hemp extracts, particularly cannabidiol (CBD), that include pain control, improved sleep, relief of a variety of digestive distress, reduction in seizures and improvements of mood.[1] Children suffer from these disorders, as well as adults.

Cannabidiol (CBD) is one of the highly researched active ingredients of cannabis (hemp and marijuana). CBD products are currently utilized for both adult and pediatric applications. Recently the market has been flooded with products marketed that contain CBD. CBD has been shown to have pain relieving benefits due to its action on the (Human) Endocannabinoid System (ECS).[2] The ECS is thought to have a regulatory influence on virtually every system of the body, particularly the nervous, endocrine and immune systems.[2] The ECS is the largest neurotransmitter system. There are two cannabinoid receptors: CB1 and CB2.[2] CBD (which does not have intoxicating properties) and THC (which does) are received by CB1 receptors. CB1 receptors are primarily found in the central nervous system and immune system.

Prior to cannabis prohibition in 1937, hemp derived cannabinoids were omnipresent in the daily diet. Hemp was used as fodder for food animals and so cannabinoids were consumed in meat, eggs and milk.[1] Cannabis provided one of the most widely prescribed medicines since the 1850's.[3,4] When the Marijuana Tax Act of 1937 was enacted, and CBD was removed from the human diet, endocannabinoid deficiency began to develop.[3] However, in addition to cannabis, other plants, such as black pepper, turmeric, ginger, green tea, hops, cacao, echinacea, flax seed, black truffles, helichrysum, liverwort, Chinese Labrador (rhododendron) and marigold contain phytocannabinoids, which meet this deficiency.[1]

Endocannabinoids are depleted with stress, and can be supplemented by phytocannabinoids to support endocannabinoid functions.[1] Therefore, CBD is not an essential nutrient, even though, per se, it has often been turned to in times of stress.

CBD is readily obtainable in most parts of the United States and has been found to be a ready delivery system to facilitate activity of the ECS. All 50 states have laws legalizing CBD with varying degrees of restriction. According to a survey of 800 chiropractors, 26% of chiropractors in the US sell CBD products in their offices.[2]

Some of the strongest scientific evidence for the effectiveness of CBD is in treating childhood epilepsy syndromes, such as Dravet syndrome and Lennox-Gastaut syndrome, which typically do not respond to anti-seizure medications.[4] In some studies, CBD was able to reduce the number of seizures, and in some cases it was able to stop them altogether.[4,5]

The effects of the use of CBD products in the autistic population that have been observed and reported by parents include better focus, reduced hypersensitivity, better social interactions, improved behavior during transitions, better sleep and improved digestion and elimination. It is thought that the modulating effects of cannabinoids are responsible for a wide variety of responses.[1]

Allergy can be a reason to avoid CBD preparations in favor of other sources of phytocannabinoids. Since cannabis is a flower, those individuals with flower allergies should approach use of CBD products cautiously.

Dosing is a special concern. In this author's experience treating special needs children, it has been observed that beginning with very small doses and working up as needed often results in a unique dose for each patient. It is not uncommon to begin with doses as small as 1/20 of a ml, which, for many preparations of full spectrum CBD products, can be as little as .8 mg of CBD. These small doses are often enough to affect a pronounced change in a child on

the autism spectrum.[6] There have been anecdotal reports concerning dosage thresholds and potential adverse events so it is very important to practice cautious graded administration and careful monitoring of patient response.

A helpful resource to assist with dosing, available research and product choice is the Realm of Caring.[7] The Realm of Caring is involved in funding and conducting cannabis research in an effort to learn more about cannabis and its effects while legitimizing the therapy. Education empowers consumers to select the best products for their individual needs and informs healthcare professionals about options for their patients.

In summary, when choosing a CBD product, be sure it is
- · Organic and GMO-free
- · Full Spectrum and not a CBD isolate
- · Certified by the US Hemp Authority: www.ushempauthority.org
- · Free of artificial ingredients such as sweeteners, colors and flavors
- · From a reputable source that offers full disclosure regarding ingredients
- · Consider potential side effects and allergies

Many families currently use CBD products with their special needs children and are seeing positive results. The chiropractor can be the front line resource for providing factual information and product sourcing and utilization for these families.

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Endocannabinoid, CBD, THC, Chiropractic, hemp, cannabis, autism, inflammation, pain.

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