



## **CANNABIDIOL THERAPY COULD REDUCE SYMPTOMS IN AUTISTIC CHILDREN AND TEENAGERS**

**Tuesday 8<sup>th</sup> April, 13:25 CEST** - New research presented at the 2025 European Congress of Psychiatry reveals that the use of cannabidiol (CBD) cannabis extract can lead to meaningful benefits and improve the behaviour of children and adolescents with autism spectrum disorder (ASD). ASD affects approximately 1 in 100 children around the world and symptoms can include difficulty interpreting language, difficulty expressing emotions, and repetitive behaviour and routines.<sup>1,2</sup>

The meta-analysis included randomised, placebo-controlled trials on the efficacy or safety of CBD cannabis extracts in children and adolescents with ASD. Three studies were used in total with 276 participants with a mean age of 10.5, ranging in age from 5 to 21. The dosage of CBD cannabis extract started at 1 mg/kg per day and was titrated up to 10 mg/kg.

Key findings from the study include:

- CBD cannabis extract use shows moderate improvements in social responsiveness and small yet notable reductions in disruptive behaviours
- CBD cannabis extract significantly enhanced social responsiveness and reduced disruptive behaviour
- The use of CBD cannabis extract has a favourable safety profile as it did not increase adverse events compared to placebo
- There were no significant differences between adverse events in CBD cannabis extract versus placebo

Lara Cappelletti Beneti Branco, Lead Investigator, São Camilo University Center, University of São Paulo, said: “The global population prevalence of ASD diagnosis amongst children and adolescents is growing, but many treatment pathways are not effective. It is promising to see the effect of CBD cannabis extract on the study participants. However, there still needs to be considerable focus on further research with larger trials to clarify its efficacy and safety in managing ASD.”

Professor Geert Dom, EPA President, said: “ASD can be extremely frustrating for all involved; parents of children and adolescents with the disorder, the treating clinicians and of course the children and adolescents themselves. A large part of this frustration is down to finding a viable treatment option that works to reduce symptoms. It is with delight that we see the results of this meta-analysis and we hope to see further research into this so we can move towards a solution to the unmet need within this community.”

The European Congress of Psychiatry takes place from 5-8 April 2025 in Madrid, Spain, and represents Europe’s largest congress dedicated to psychiatry, with over 5,200 attendees from over 120 countries: [epa-congress.org](https://epa-congress.org).

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**Notes to editors**

**Efficacy and Safety of Cannabidiol Cannabis Extracts for Children and Adolescents with Autism Spectrum [EPA2025-ABS-3651]**

Disorder: A Systematic Review and Meta-Analysis of Randomized Controlled Trials

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Introduction: Autism Spectrum Disorder (ASD) affects approximately 3% of children and adolescents in the U.S. This condition is increasingly prevalent worldwide and presents significant treatment challenges. Preliminary evidence suggests that cannabidiol (CBD) cannabis extracts may help manage ASD symptoms, but their efficacy and potential harms have not yet been systematically investigated.

Objectives: To systematically review and meta-analyze the evidence from clinical trials investigating the efficacy and safety of CBD cannabis extracts in alleviating symptoms of ASD in children and adolescents.

Methods: We conducted a comprehensive search in MEDLINE, Embase, PsycINFO, and the Cochrane Central Register of Controlled Trials using MeSH terms including "Autism Spectrum Disorder," "Cannabidiol," "Cannabis," "Child," and "Adolescents." No language or publication date restrictions were applied. The search was last updated on September 8, 2024. We included randomized, placebo-controlled trials on the efficacy or safety of CBD cannabis extracts in children and adolescents with ASD. For outcomes with limited study data, we used a fixed-effects model. The risk of bias in the included studies was evaluated using the Risk of Bias 2 tool.

Results: Three studies met our criteria, comprising 276 participants (78.3% male; mean age 10.5 years, range 5 to 21). Interventions included orally administered CBD cannabis extracts, with tetrahydrocannabinol (THC) present in minimal amounts or in ratios of 9:1 to 20:1 CBD to THC. Dosages of CBD started at 1 mg/kg per day and were titrated up to 10 mg/kg per day. CBD cannabis extracts significantly enhanced social responsiveness (SMD = -0.75 [-1.08, -0.43],  $p < 0.01$ ,  $I^2 = 17\%$ ), reduced disruptive behavior (SMD = -0.36 [-0.67, -0.06],  $p = 0.02$ ,  $I^2 = 0\%$ ), and alleviated anxiety (SMD = -0.33 [-0.63, -0.03],  $p = 0.03$ ,  $I^2 = 59\%$ ). CBD cannabis extracts also improved sleep quality,



without reaching statistical significance (SMD = -0.19 [-0.49, 0.11],  $p = 0.21$ ,  $I^2 = 0\%$ ). There was no significant difference in adverse effects between interventions and placebo (odds ratio = 2.11 [1.00, 4.46],  $p = 0.05$ ,  $I^2 = 38\%$ ).

**Conclusions:** CBD cannabis extracts appear to provide meaningful benefits for children and adolescents with ASD, showing moderate improvements in social responsiveness and small yet notable reductions in disruptive behaviors and anxiety. They do not seem to significantly increase adverse effects compared to placebo, suggesting a favorable safety profile. These findings support the potential consideration of CBD cannabis extracts in ASD treatment plans. However, the review's limitations include a small number of studies, limited sample sizes, and significant heterogeneity. Future research with larger, robust trials is needed to clarify the efficacy and safety of CBD cannabis extracts in managing ASD.

Disclosure of Interest: None Declared

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### **References**

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