ISBN: 978-65-986235-9-3

Aurum EDITORA

CHAPTER 6

PERSPECTIVES ON THE MEDICINAL USE OF CANNABIDIOL (CBD) IN CASES OF CHRONIC DISEASES

https://doi.org/10.63330/aurumpub.009-006

Tamires Rodrigues de Sousa[1], Melissa Cardoso Deuner[2], Gyzelle Pereira Vilhena do Nascimento[3], Priscilla Mota Costa[4], Rachel de Oliveira Rabelo[5], Grazieli Aparecida Huppes[6], João Marcos Torres do Nascimento Mendes[7], Diego de Carvalho Maia[8], Mônica Larissa Gonçalves da Silva[9] and Gregório Otto Bento de Oliveira[10]

ABSTRACT

This integrative review article addresses the use of cannabidiol (CBD) as an adjuvant therapy in chronic patients, highlighting its benefits in managing epilepsy, Parkinson's disease, and multiple sclerosis—incurable conditions whose symptoms can be alleviated through complementary treatments, thereby improving quality of life. Through a descriptive bibliographic review (covering the last 10 years), the study aims to disseminate scientific knowledge, demystify prejudices associated with CBD, and guide its appropriate use based on evidence. The discussion includes a comparative table of therapeutic outcomes, reinforcing the importance of a multidisciplinary approach and medical supervision. By clarifying doubts and providing accessible information, this work contributes both to patients undergoing treatment and to the general public, promoting a broader and more critical understanding of the topic.

Keywords: Cannabidiol; Chronic Conditions; Treatment; Epilepsy; Medicinal Use.

[1] Faculdade Anhanguera de Brasília – FAB. DF
ORCID: https://orcid.org/0009-0007-0797-8836
[2] Faculdade Anhanguera de Brasília – FAB. DF
ORCID: https://orcid.org/0009-0002-0324-5543
[3] Faculdade Anhanguera de Brasília – FAB. DF
ORCID: https://orcid.org/0000-0002-0324-5543
[4] Centro Universitário Projeção – UniProjeção. Taguatinga. DF
ORCID: https://orcid.org/0000-0002-8425-4221
[5] Faculdade Anhanguera de Brasília – FAB. DF
ORCID: https://orcid.org/0009-0001-7787-6145
[6] Faculdade Anhanguera de Brasília – FAB.
ORCID: https://orcid.org/0009-0002-9755-049X
[7] UNICEPLAC Centro Universitário do Planalto Central Apparecido dos Santos. Brasília, DF
ORCID: https://orcid.org/0000-0002-2521-8714
[8] Faculdade Anhanguera de Brasília – FAB. DF
ORCID: https://orcid.org/0009-0007-2433-2633
[9] Faculdade Anhanguera de Brasília – FAB. DF
ORCID: https://orcid.org/0009-0004-1054-1668
[10] Faculdade Anhanguera de Brasília – FAB. DF
ORCID: https://orcid.org/0009-0008-9326-9450

INTRODUCTION

Cannabis sativa is a plant known for its active compounds, cannabinoids, which possess therapeutic properties. The medicinal use of cannabis dates back millennia, and in recent years, cannabidiol (CBD) has emerged as a compound with therapeutic potential for various health conditions. It interacts with the endocannabinoid system, modulating inflammatory processes, neuroprotection, and neurotransmission.

This study addresses the medicinal use of cannabidiol in chronic patients, demonstrating how a plant once associated with recreational use and even drug trafficking has been repurposed in favor of medicine to treat numerous diseases—most of which are incurable and severely detrimental to public health, depriving individuals of quality of life and further compromising bodily systems. Medicinal cannabidiol has emerged as a supportive treatment option for these individuals.

However, the legalization of its therapeutic use remains a highly debated topic and is still prohibited or restricted in many countries. Therefore, through this study, individuals suffering from the chronic conditions discussed herein gain better knowledge and clarification on the subject—often dispelling prejudices and societal paradigms.

Most of the population associates the term “cannabis” solely with illicit recreational drugs, unaware that these chronic diseases may benefit from less invasive and more targeted treatments. Such treatments can yield the positive outcomes sought by medical teams overseeing patient care.

This study, through an integrative literature review, aims to analyze scientific evidence regarding the application of cannabidiol (CBD) in the treatment of chronic diseases, focusing on its pharmacological mechanisms, current therapeutic indications (particularly for epilepsy, Parkinson’s disease, and multiple sclerosis), and existing clinical protocols. The goal is to assess its efficacy and safety to propose optimized guidelines. By systematically analyzing studies published over the past decade, the research seeks to consolidate knowledge that supports clinical practice, reduces stigma, and encourages further research in this emerging field of medicine.

DEVELOPMENT

METHODOLOGY

This integrative review was conducted between February and March 2025 through a systematic search in the SciELO, PubMed, Google Scholar databases, and indexed journals. Boolean operators ("AND", "OR") were used to combine the descriptors: "cannabidiol" OR "CBD" AND "epilepsy" OR "chronic diseases" AND "treatment" OR "therapeutics". Review articles published between 2015 and 2023 in Portuguese and English that addressed the therapeutic application of cannabidiol were included,

with particular emphasis on its adjuvant use in epilepsy. Duplicate studies and those not aligned with the research objectives were excluded.

The screening followed eligibility criteria focused on evidence regarding the efficacy, safety, and challenges of cannabidiol use in chronic conditions. Descriptive data analysis enabled the synthesis of findings related to pharmacological mechanisms, clinical outcomes, and barriers faced by patients. This methodological approach aimed to ensure scientific rigor in source selection, providing a comprehensive understanding of the topic within the investigated period.

Table 1 – Selected Articles for the Integrative Review

Author/Year	Article	Objectives	Methodology	Results and Conclusion
Almeida (2020)	O uso da canabidiol para o tratamento da epilepsia: uma revisão bibliográfica. (The use of cannabidiol for the treatment of epilepsy: a literature review.)	To conduct a comprehensive literature review on the use of cannabidiol (CBD) in the treatment of epilepsy, analyzing scientific literature to consolidate knowledge on its efficacy, safety, and mechanisms of action.	A bibliographic review compiling and analyzing various studies and scientific articles on cannabidiol and epilepsy, aiming to identify patterns, gaps, and consensus in the research.	The article likely concludes that cannabidiol has shown promise as a therapeutic option for various forms of epilepsy, especially refractory types, highlighting the need for further research to optimize clinical use and understand long-term effects.
Anderson, L. L. et al. (2019)	Canabidiol e clobazam coadministrados: Evidência Pré-clínica para interações farmacodinâmicas e fármaco cinéticas (Co-administration of cannabidiol and clobazam: Preclinical evidence for pharmacodynamic and pharmacokinetic interactions.)	Avaliar as interações farmacodinâmicas e farmacocinéticas entre canabidiol (CBD) e clobazam (CLB) em um contexto pré-clínico. O estudo visou investigar se a coadministração de CBD e CLB alteraria os efeitos anticonvulsivantes ou os perfis de segurança de cada composto.	Preclinical models, likely involving animals, were used to study the combined administration of CBD and clobazam. Analyses included serum and tissue levels of compounds and metabolites, as well as behavioral and physiological effects.	The study likely demonstrated interactions between CBD and clobazam, suggesting the need for careful monitoring and dose adjustment in patients using both drugs, particularly in epilepsy treatment.
Andrade, F. (2023)	O uso medicinal da cannabis. Um aliado no combate à doença. (The medicinal use of cannabis: An ally in combating disease.)	To discuss the medicinal use of cannabis as a therapeutic tool in combating various diseases, highlighting its benefits and clinical relevance.	Likely a review or informative article based on literature analysis and anecdotal evidence or case studies illustrating the potential of medicinal cannabis.	The article likely emphasizes medicinal cannabis as a promising "ally" in treating certain diseases, suggesting that with proper regulation and research, it can offer valuable therapeutic options.
Bitencourt, R. M. (2022)	CBD de espectro completo ou purificado: qual o melhor tratamento para epilepsia? (Full-spectrum or purified CBD: Which is the better treatment for epilepsy?)	To compare the efficacy and safety profiles of full-spectrum cannabidiol (CBD) versus purified CBD in epilepsy treatment.	A comparative review of studies investigating full-spectrum and purified CBD in epilepsy patients, analyzing clinical trials and observational research.	The conclusion discusses the pros and cons of each formulation. Full-spectrum CBD may offer an "entourage effect" enhancing benefits, while purified CBD provides consistency and lower THC content. The best choice may depend on individual and clinical considerations.

Brucki, et al. (2015)	Canabinoides e seu uso em neurologia – Academia Brasileira de Neurologia. (Cannabinoids and their use in neurology – Brazilian Academy of Neurology.)	To provide an overview and position statement from the Brazilian Academy of Neurology on the use of cannabinoids in various neurological conditions.	A position paper likely based on a critical review of existing scientific literature on cannabinoids in neurology, compiling key evidence to formulate guidelines and recommendations.	The conclusion highlights the therapeutic potential of cannabinoids in neurology for certain conditions, while also emphasizing limitations, the need for more controlled studies, and ethical/legal considerations in Brazil.
De Jesus, et al. (2017)	Legalização da maconha para fins medicinais. (Legalization of marijuana for medicinal purposes.)	To analyze the process and implications of legalizing marijuana for medicinal use, addressing legal, ethical, social, and public health aspects.	Legal and social review exploring legislation, debates, and international experiences, discussing arguments for and against.	The article concludes that legalization is complex with significant implications, but offers potential benefits for specific conditions, requiring strict regulation and ongoing monitoring.
Devinsky, et al. (2017)	Ensaio de canabidiol para convulsões resistentes a drogas na síndrome de Dravet. (Cannabidiol trial for drug-resistant seizures in Dravet syndrome.)	To evaluate the efficacy and safety of cannabidiol (CBD) in reducing seizure frequency in patients with Dravet syndrome, a severe form of drug-resistant epilepsy.	Randomized, controlled clinical trial with patients receiving either CBD or placebo to compare seizure reduction and adverse effects.	The study showed that CBD significantly reduced seizure frequency and was generally well tolerated, indicating its potential as an important adjunct therapy.
Estrutti, et al. (2019)	Situação de empregabilidade em pessoas com esclerose múltipla no Brasil. (Employment situation of people with multiple sclerosis in Brazil.)	To analyze and describe the employment situation of individuals with multiple sclerosis in Brazil, identifying factors affecting job market inclusion and retention.	Likely a quantitative and/or qualitative study using surveys or interviews with MS patients to collect data on employment, challenges, and opportunities.	The article concludes that MS patients face significant employment challenges, highlighting the need for inclusive policies and workplace adaptations.
Feliz, (2023)	Aspectos práticos do uso da cannabis medicinal em dor crônica. (Practical aspects of medicinal cannabis use in chronic pain.)	To present practical and clinical considerations regarding the use of medicinal cannabis, specifically cannabidiol, in managing chronic pain.	Likely a literature review focused on clinical guidelines and practical evidence, including dosage, administration routes, and safety profiles.	The article discusses practical implications of cannabis use for chronic pain, indicating therapeutic potential while emphasizing individualized care, proper dosing, and awareness of side effects.
Junior, F. L. W. (2023)	Uma visão abrangente da epilepsia: etiologia, classificação e manifestações clínicas. (A comprehensive view of epilepsy: etiology, classification, and clinical manifestations.)	To provide a comprehensive overview of epilepsy, covering causes, classification of seizure types and syndromes, and clinical manifestations.	Theoretical or literature review based on clinical guidelines, international classifications, and studies describing various aspects of epilepsy.	The article concludes that epilepsy is a complex neurological condition with varied causes and manifestations, and that deep understanding is essential for accurate diagnosis and management.
Matos, et al. (2017)	The Cannabidiol Use in the Treatment of Epilepsy.	To present a comprehensive review on the use of cannabidiol (CBD) in epilepsy treatment, covering mechanisms of action, clinical efficacy, and safety considerations.	Bibliographic review synthesizing studies on CBD use in epilepsy, from pharmacological basics to clinical trial outcomes.	The article concludes that CBD is a promising therapeutic option for various epilepsy types, with good efficacy and safety profiles, though research is ongoing.
Moser, (2020)	Eficácia do uso de Canabidiol em 37 Pacientes pediátricos	To evaluate the efficacy of cannabidiol (CBD) in reducing seizure	Systematic review involving rigorous search and selection of studies on CBD use in children	The study concludes that CBD was effective in reducing seizures in pediatric

	com epilepsia refratária ao tratamento: uma revisão sistemática. (Efficacy of cannabidiol use in 37 pediatric patients with treatment-resistant epilepsy: a systematic review.)	frequency in pediatric patients with treatment-resistant epilepsy through a systematic literature review.	with refractory epilepsy. Data from 37 patients were likely extracted and analyzed.	patients with refractory epilepsy, supporting its therapeutic role, though study heterogeneity may limit generalization.
Ribeiro, (2014)	A *Cannabis* e suas aplicações terapêuticas. (Cannabis and its therapeutic applications.)	To explore the various therapeutic applications of cannabis, reviewing literature on its components, mechanisms of action, and efficacy in different health conditions.	Master's thesis likely involving extensive literature review and possibly data analysis or case studies.	The study concludes that CBD was effective in reducing seizures in pediatric patients with refractory epilepsy, supporting its therapeutic role, though study heterogeneity may limit generalization.
Santos, (2016)	O uso do Canabidiol no Brasil e o posicionamento do Órgão Regulador. (The use of cannabidiol in Brazil and the position of the Regulatory Agency.)	To analyze the status of cannabidiol (CBD) use in Brazil, including regulations and the stance of ANVISA and other regulatory bodies.	Documentary and regulatory analysis examining laws, ordinances, and official positions on CBD use, as well as access and usage scenarios in Brazil.	The article concludes that CBD use in Brazil is undergoing regulatory evolution, with gradual progress in access and permission, though bureaucratic and social challenges remain.
Silva, (2024)	Avaliação da qualidade de vida em adolescentes portadores de epilepsia atendidos na atenção primária em um município do oeste do Pará. (Quality of life assessment in adolescents with epilepsy treated in primary care in a municipality in western Pará.)	To assess the quality of life of adolescents with epilepsy receiving primary care in a specific city in Pará, identifying factors influencing their well-being.	Likely a quantitative study using validated quality of life questionnaires and statistical analysis of data collected in primary care.	The article presents results on quality of life in adolescents with epilepsy in the studied region, likely pointing to specific challenges and suggesting interventions to improve overall well-being.
Souza, (2020)	Medicamento derivado da maconha: *Canabidiol* e seus efeitos no tratamento de doenças do sistema nervoso / Medicinal products from marijuana: Canabidiol and its effects in the treatment of nervous system diseases.	To analyze and describe the effects of cannabidiol (CBD), a marijuana derivative, in treating various nervous system diseases.	Bibliographic review analyzing and synthesizing information from previously published research and scientific articles on CBD use in neurological conditions.	The article likely concludes that CBD has significant therapeutic potential for treating various nervous system diseases, though more research is needed to confirm efficacy and safety on a large scale.
Walz, R. (2017)	Canabinoides e epilepsia: potencial terapêutico do canabidiol. (Cannabinoids and epilepsy: therapeutic potential of cannabidiol.)	To explore and discuss the therapeutic potential of cannabidiol (CBD) in epilepsy treatment, reviewing available scientific evidence on efficacy	Literature review analyzing preclinical and clinical studies on CBD and its impact on seizures, aiming to understand how CBD acts in the nervous system.	The study concludes that CBD has promising therapeutic potential for epilepsy, especially refractory forms, and that more research is needed to optimize clinical use.

		and mechanisms of action.		

Source: Authors, 2025

RESULTS AND DISCUSSION

The Brazilian regulatory agency (ANVISA) has authorized the medicinal use of cannabidiol through importation for specific cases. However, a medical prescription, clinical reports, and a liability waiver are required (BRUCKI et al., 2015).

Despite its promise, medicinal cannabis is still considered a novelty in the Brazilian pharmaceutical market. Physicians prescribe these products cautiously due to the lack of in-depth studies on their efficacy and safety for each individual, as well as the potential for interactions with other medications. The plant's complexity, with its various synergistic components, makes prescribing more challenging (BRIQUES et al., 2023).

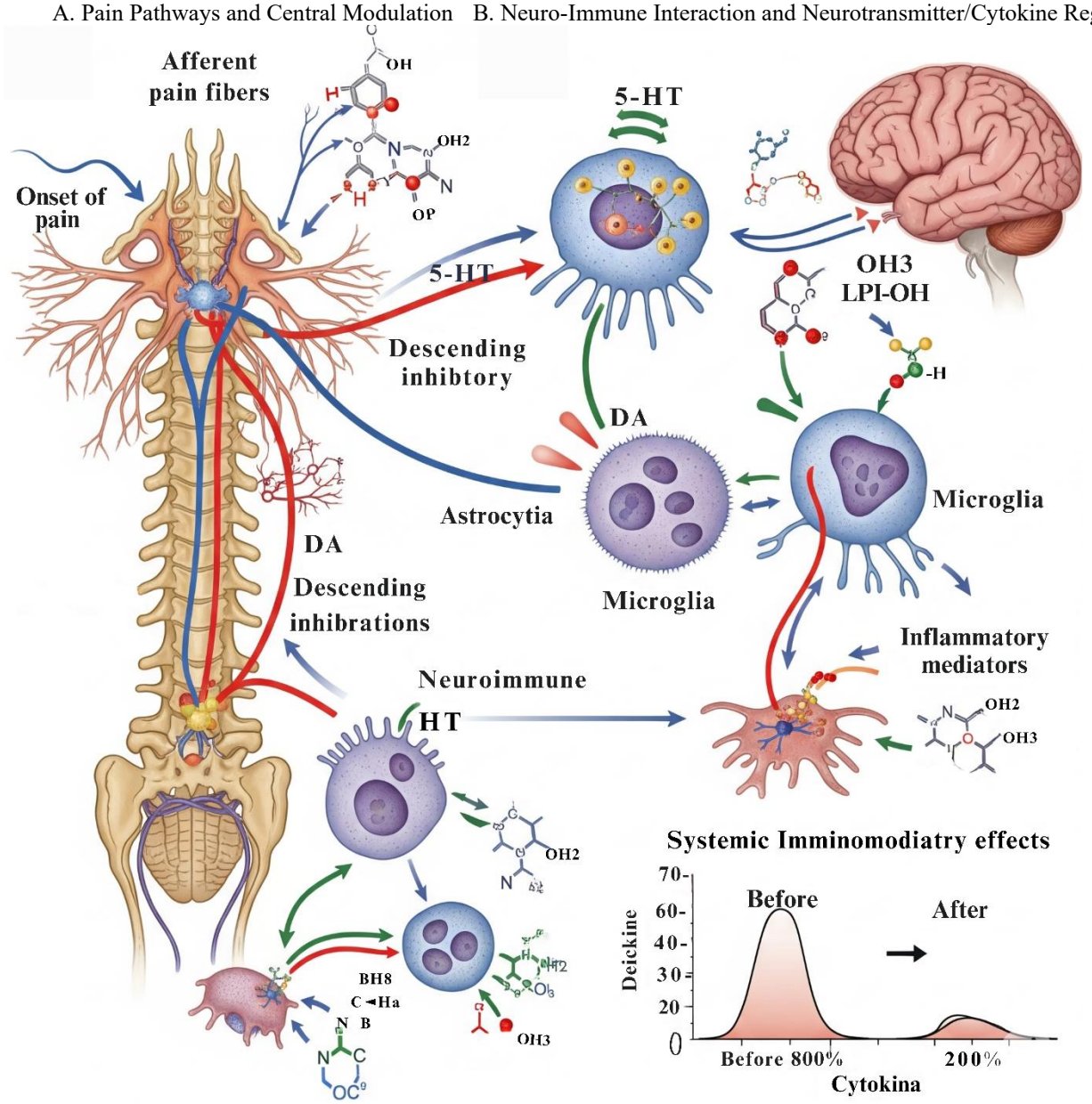
According to Anderson e col. (2019), authorities fear that the legalization of cannabidiol could lead to its recreational misuse by patients, rather than its intended therapeutic use. Although its therapeutic activity is well-documented, patients may not fully understand that it should be used in specific, controlled contexts to ensure effective treatment.

The medicinal use of cannabidiol demonstrates a wide range of functions, particularly in its strictly therapeutic applications. It has shown efficacy as an adjuvant in cancer treatment, alleviating pain, stimulating appetite, and restoring the desire to eat. Its use facilitates treatment and supports the management of various chronic diseases. One such condition is central pain in multiple sclerosis, an inflammatory and degenerative disease that is increasingly affecting the population (ZAFAR et al., 2022).

This disease has limited treatment options, and cannabidiol has proven to be effective. Patients undergoing cannabis-based treatments, including for cancer, report feelings of calm, clarity, and tranquility, with reduced anxiety and relief from the emotional burden of chemotherapy (ZAFAR et al., 2022).

According to Ame (2023), cannabidiol acts directly on the nervous system responsible for chronic pain, reducing and modulating it. It regulates neurotransmitters such as serotonin and dopamine and enhances immune function. The ongoing struggle for access to health rights through the therapeutic use of Cannabis sativa remains a topic of debate in Brazil. The plant is increasingly used in the pharmaceutical industry, and studies have shown the benefits of cannabidiol in treating anxiety, depression, and multiple sclerosis (RIBEIRO, 2014)

Image 1 – Mechanisms of Chronic Pain Modulation: Neuro-Immune Interaction and Neurotransmitter Regulation
A. Pain Pathways and Central Modulation B. Neuro-Immune Interaction and Neurotransmitter/Cytokine Regulation



Source: Authors, 2025

Legend:

A. Pain Pathways and Central Modulation:

- **Afferent pain fibers:** These are nerve pathways that transmit pain signals (represented as "Onset of pain") from peripheral areas (e.g., skin, muscles) to the spinal cord and subsequently to the brain.
- **Descending inhibitory:** This part of the image illustrates neural pathways originating in the brain and descending to the spinal cord (represented by blue and red lines). These pathways are essential for pain modulation—either amplifying or suppressing pain perception. The term "Descending inhibitions" emphasizes their role in suppressing pain signals.
- **DA (Dopamine) and 5-HT (Serotonin):** These are neurotransmitters—chemical messengers that transmit signals between neurons. The image suggests that the intervention affects the release and/or action of dopamine and serotonin in pain pathways, contributing to pain modulation. Serotonin is particularly important in descending inhibitory pain pathways.

B. Neuro-Immune Interaction and Regulation of Neurotransmitters/Cytokines:

This section focuses on cellular and molecular levels:

- **5-HT (Serotonin) and DA (Dopamine):** The image shows the release and interaction of serotonin and dopamine with various cell types.
- **Astrocytes and Microglia:** These are glial cells, which support the central nervous system.

- **Astrocytes:** Play a crucial role in neuronal support, synaptic regulation, and maintaining the blood-brain barrier.
- **Microglia:** Are the resident immune cells of the brain and spinal cord. They act as immune sentinels, responding to injury and inflammation.

- **Neuroimmune:** This arrow highlights the bidirectional communication between neurons and immune cells—an emerging field in chronic pain research. Neuroinflammation, often mediated by microglia, can significantly contribute to chronic pain.
- **Inflammatory mediators:** The image indicates that the intervention may influence the release or action of inflammatory mediators (such as cytokines), which are molecules that promote inflammation and contribute to pain. The goal is to reduce pro-inflammatory mediators and/or increase anti-inflammatory ones.
- **Systemic Immunomodulatory Effects:** This section and the accompanying graph illustrate how the intervention affects not only the nervous system but also has broader impacts on the body's immune system.
- The graph shows a distribution ("Before" and "After") of cells or cytokines. The "Before" curve has a higher peak, indicating greater concentration or activity of something labeled "Cytokine" and "Deickine" (possibly a marker or measure of inflammatory cytokines). The "After" curve is lower and shifted, suggesting a reduction in these inflammatory mediators post-intervention—indicating decreased systemic inflammation.

Clinical trials have demonstrated a significant reduction in seizure frequency among individuals using medicinal cannabidiol to treat chronic conditions. These findings suggest that CBD may help alleviate anxiety, relieve pain, and offer neuroprotective properties—benefits particularly relevant for patients with epilepsy (VIANA et al., 2023).

Despite strong evidence supporting its therapeutic potential, the regulation of medicinal cannabis and the legal challenges surrounding the right to health remain ongoing issues in Brazil. The integration of medicinal cannabis into treatment plans must be personalized, with close monitoring and adjustments as needed to ensure that each patient’s unique needs are met (CARVALHO et al., 2022).

It is important to recognize that individual responses to treatment can vary. The therapeutic use of cannabidiol depends on several factors, including the severity of the condition, patient-specific characteristics, and the formulation and administration route of the cannabis-based product (SILVA et al., 2023).

Table 2 – Treatable Diseases with *Cannabis sativa*: Effects and Efficacy of Medicinal Cannabis in Chronic Diseases

Disease	Effects of Medicinal Cannabis	Treatment Efficacy
Epilepsy	- Reduction in frequency and intensity of epileptic seizures. - Possible improvement in patients' quality of life.	Effective for some patients; individual variability.
Parkinson's Disease	- Relief of motor symptoms (tremors, muscle rigidity, bradykinesia). - Potential control of balance and posture, improving mobility.	Evidence of efficacy, but results may vary.
Multiple Sclerosis	- Relief of symptoms such as muscle spasms, neuropathic pain, and fatigue. - Possible positive impact on inflammation and disease progression.	Some improvements reported; response may be individual.
General Effects	- **Analgesia**: Pain relief in patients with various conditions. - **Anti-inflammatory:** Reduction of inflammation associated with diseases. - **Muscle relaxation:** Benefit in muscle spasms. - **Sleep improvement**: Aid in sleep disorders. - **Neuroprotection:** Antioxidant action and protection of nerve cells.	

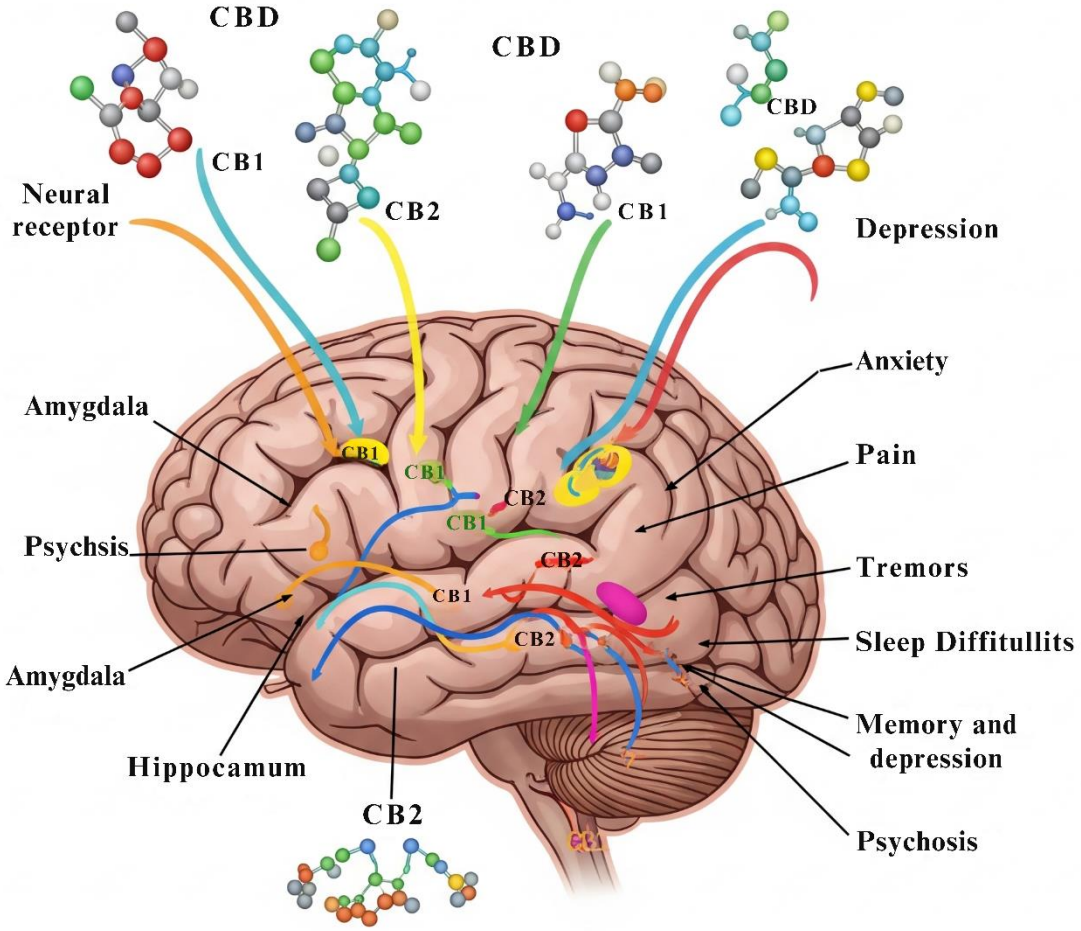
Source: SILVIA (2023, P,5)

As shown in Table 2, Cannabis sativa has demonstrated therapeutic potential in treating serious diseases that primarily affect the central nervous system. Conditions such as epilepsy, characterized by recurrent seizures, may benefit from improved quality of life through symptom reduction. Cannabis is not merely a medical innovation—it has shown favorable outcomes by reducing neurological symptoms, loss of consciousness, and seizures in epilepsy patients, as well as improving motor symptoms in Parkinson's disease and reducing movement disorders in multiple sclerosis (SILVIA, 2023).

Multiple sclerosis is considered an autoimmune disease, where the immune system attacks healthy cells, leading to inflammation and progressive loss of function and pain over time (ESTRUTTI, 2019). Medicinal cannabis helps control inflammation, potentially slowing disease progression—a subject of ongoing research (JESUS, 2022).

Medicinal cannabidiol may reduce depression and anxiety and relieve pain. A study conducted by the Colorado School of Medicine demonstrated relief from issues including tremors and sleep disturbances. Additionally, studies on cannabidiol have shown its effectiveness in treating psychosis, as illustrated in Image 2.

Image 2 – Interaction of Cannabidiol (CBD) with Neural Receptors and Its Therapeutic Effects



Source: (Adapted). Authors, 2025

Legend:

This image provides a visual representation of **how cannabidiol (CBD) interacts with the human brain**, illustrating its potential to alleviate various health conditions.

1. Cannabidiol (CBD) and Its Target Receptors

- **Canabidiol (CBD):** At the top of the image, various molecular representations of CBD are shown, highlighting its chemical structure. CBD is a non-psychoactive compound found in the Cannabis plant, known for its potential therapeutic effects.
- **Neural Receptors (CB1 and CB2):** Colored arrows extend from the CBD molecules toward the brain, indicating interaction with CB1 and CB2 receptors. These receptors are part of the **Endocannabinoid System (ECS)**, a complex signaling system in the body that plays a crucial role in regulating a wide range of physiological functions, including mood, pain, sleep, appetite, and memory.
  - **CB1 Receptors:** Primarily located in the central nervous system (brain and spinal cord), where they modulate neurotransmitter release.
  - **CB2 Receptors:** Found mainly in the immune system and peripheral tissues, though also present in smaller amounts in the brain.
- **Mechanism of Action:** The image suggests that CBD, by interacting with (or indirectly modulating) these receptors, can influence neuronal activity and, consequently, affect brain and body functions.

2. Brain Regions and Their Associations

The image highlights specific brain regions and their links to conditions that CBD may influence:

- **Amygdala:** A key brain structure involved in processing emotions, especially fear and anxiety. The image connects it to **Anxiety** and **Psychosis**, suggesting that CBD's action in the amygdala may help regulate emotional responses and reduce symptoms.
- **Hippocampus:** Vital for memory formation, learning, and mood regulation. The image associates it with **Memory** and **Depression**, indicating that CBD may support cognitive function and mood improvement by acting on this region.

3. Therapeutic Conditions Potentially Alleviated by CBD

The image outlines several conditions for which CBD shows therapeutic promise:

- **Depression:** CBD's interaction with neural pathways and receptors may help regulate mood and alleviate depressive symptoms.
- **Anxiety:** Through its action on the amygdala and other neural circuits, CBD may reduce anxiety and stress.
- **Pain:** CBD interacts with receptors involved in pain perception, suggesting analgesic effects useful in managing various types of pain.
- **Tremors:** The image indicates that CBD may help modulate motor control, aiding in the reduction of tremors—relevant for neurological disorders.
- **Sleep Difficulties:** By influencing neurotransmitters and brain circuits related to the sleep-wake cycle, CBD may improve sleep quality and relieve insomnia.
- **Psychosis:** The image reinforces CBD's potential as an antipsychotic or adjunct treatment for psychotic disorders, possibly through dopamine modulation and other neurotransmitter systems.

Patients have shown tolerance to low doses of cannabidiol oil and report positive effects. CBD demonstrates therapeutic activity in nervous system disorders due to its ability to act on the endocannabinoid system, which, according to studies, has regulatory potential across various diseases (NASCIMENTO et al., 2020).

According to Bezerra et al. (2023), the diseases mentioned above have treatments with other medications besides cannabidiol. These are diseases that evolve gradually, and this progression leads patients to require adjuvant treatment or to test new medications, which are mostly invasive.

They often cause undesirable and adverse effects in the patient's body, leading to resistance to their action and even resulting in dependence, as most contain active principles that cause such dependence. It is known that currently, the extract of the cannabis plant has been effective and is considered a treatment option for patients with these pathologies (MATOS et al., 2017).

Epilepsy causes continuous disorder in the brain, and these seizures are considered recurrent, which may be isolated or caused by a specific reason. It is visibly noticeable that these people suffer, as they struggle to overcome the stigma surrounding medications. The treatment has been gaining more strength and becoming part of the daily routine of medications taken. Little is still known about epilepsy, and few advances in studies are observed. This disease is increasingly growing in society and shows little evolution in research. It affects people of different age groups, races, or social classes and is marked by prejudice and lack of knowledge. Those who have the condition find themselves fragile and rejected by society itself (COSTA et al., 2022).

Epilepsy, with the epileptic seizure being a state in which the body becomes more agile and brief—although it is a transition—is a moment when the brain is in crisis, and this crisis distributes discharges several times, circulating through various groups of cells called neurons. This movement results from synchronous and excessive discharges in these neurons of the central nervous system. Cannabidiol acts as an adjuvant treatment, with anti-inflammatory action that allows a patient to reduce from several convulsive seizures per week to one or two. The treatment of epilepsy focuses on seizure control, involving a diversity of professionals from various specialties accompanying the treatment and

providing a better quality of life for these patients, who mostly just want to live a normal life. In 2019, ANVISA approved RDC No. 327, dated December 9, 2019, which “provides for the procedures for granting sanitary authorization for the manufacture and importation, as well as establishes requirements for the commercialization, prescription, dispensing, monitoring, and inspection of Cannabis products for medicinal purposes, and other provisions” (SANTOS et al., 2021).

Medicinal cannabidiol has two forms of administration: one in capsules and the other in oil. The recommended dosage varies depending on age, weight, the severity of epilepsy, and other health conditions of the patient. The treatment, from the beginning, will be lifelong and accompanied by specialized health professionals, as side effects may occur, such as drowsiness, diarrhea, and changes in blood tests (DEVINSKY et al., 2021).

At the time of dispensing, the pharmacist has the full duty to guide and be clear with the patient, answering any questions that may arise. If any adverse effect occurs during treatment with cannabidiol, the pharmacist can also monitor the patient throughout the treatment process. If any serious reaction is identified, the pharmacist may contact the prescriber so that the form of use, dosage, or even the medication itself can be reassessed or changed (SANTOS, 2021).

CONCLUSION

Medicinal cannabidiol presents significant potential in the management of chronic diseases, offering an alternative or complement to traditional treatments. However, further research is necessary to fully understand its effects and interactions. Cannabidiol has stood out as a therapeutic option in the treatment of epilepsies, especially in cases where traditional medications are not effective.

Medicinal cannabidiol interacts with the body's endocannabinoid system, which plays a very important role in regulating various functions, including the brain's electrical activity. It can help stabilize neuronal excitability, reducing the frequency and severity of epileptic seizures.

Cannabidiol represents a significant hope for many patients with epilepsy, offering a treatment option that is better than conventional treatments, which often prove to be more flawed and more harmful to health. Furthermore, research continues to evolve, and it is important that patients are accompanied by qualified healthcare professionals.

REFERENCES

1. Anderson, Lyndsey L. et al. (2019). Canabidiol e clobazam coadministrados: Evidência Pré-clínica para interações farmacodinâmicas e farmacocinéticas [Cannabidiol and clobazam coadministered: preclinical evidence for pharmacodynamic and pharmacokinetic interactions]. Epilepsia, 60(11), 2224–2234. Accessed March 1, 2025.

2. Bezerra, L. R., Silva, N. M. da, & Souza, P. G. V. D. de. (2020). Medicamento derivado da maconha: Canabidiol e seus efeitos no tratamento de doenças do sistema nervoso [Medicinal products from marijuana: cannabidiol and its effects in the treatment of nervous system diseases]. Brazilian Journal of Development, 6(12), 94755–94765. https://doi.org/10.34117/bjdv6n12-078

3. Briques, W., Pereira, C. L., & Feliz, P. S. (2023). Aspectos práticos do uso da cannabis medicinal em dor crônica [Practical aspects of medical cannabis use in chronic pain]. BrJP (Suppl. 2), S114–S119.

4. Brucki, Sonia et al. (2015). Canabinoides e seu uso em neurologia – Academia Brasileira de Neurologia
5. [Cannabinoids and their use in neurology – Brazilian Academy of Neurology]. Arquivos de Neuro-Psiquiatria, 73(4), 371–374.

6. Carvalho, C. R., Franco, P. L. C., Eidt, I., Hoeller, A. A., & Walz, R. (2017). Canabinoides e epilepsia: Potencial terapêutico do canabidiol[Cannabinoids and epilepsy: therapeutic potential of cannabidiol]. Vittalle – Revista de Ciências da Saúde, 29(1), 54–63. https://doi.org/10.14295/vittalle.v29i1.6292

7. Costa, P. A., Ribeiro de Novais Júnior, L., Mendes da Silva, L., & Mariano de Bitencourt, R. (2022). CBD de espectro completo ou purificado: qual o melhor tratamento para epilepsia? [Full-spectrum versus purified CBD: which is the best treatment for epilepsy?]. Revista Neurociências, 30, 1–24. https://doi.org/10.34024/mc.2022.v30.12864. Accessed March 1, 2025.

8. De Jesus, A. C. J. et al. (2017). Legalização da maconha para fins medicinais [Legalization of marijuana for medicinal purposes]. Revista do Curso de Direito do Centro Universitário Brazcubas, 1(1).

9. Devinsky, O. et al. (2017). Ensaio de canabidiol para convulsões resistentes a drogas na síndrome de Dravet
10. [Trial of cannabidiol for drug-resistant seizures in Dravet syndrome]. New England Journal of Medicine, 376(21), 2011–2020. Accessed March 1, 2025.

11. Do Nascimento, E. S., Yamaguchi, G. da S., Rodrigues, G. V., Melo, V. S. de, & Almeida, L. M. (2020). O uso da canabidiol para o tratamento da epilepsia: Uma revisão bibliográfica [The use of cannabidiol for epilepsy treatment: a literature review]. Revista Ensino, Saúde Biotecnologia da Amazônia, 2(esp.), 95–99. Available at https://periodicos.ufam.edu.br/index.php/resbam/article/view/6590. Accessed March 1, 2025.

12. Dos Santos, A. C. G. C., da Cunha Gandara, N. S., & Moser, J. C. G. (2020). Eficácia do uso de canabidiol em 37 pacientes pediátricos com epilepsia refratária ao tratamento: Uma revisão sistemática [Efficacy of cannabidiol use in 37 pediatric patients with refractory epilepsy: a systematic review]. Relatórios de Pesquisa – Programa de Iniciação Científica PICUniCEUB.

13. Estrutti, C. M. et al. (2019). Situação de empregabilidade em pessoas com esclerose múltipla no Brasil [Employment status of people with multiple sclerosis in Brazil]. Arquivos de Neuro-Psiquiatria, 77, 341–345. https://www.scielo.br/j/anp/a/GvHNLNXnwRMM8dZnPq7Y67R. Accessed March 3, 2025.

14. Matos, R. L. A. et al. (2017). The Cannabidiol Use in the Treatment of Epilepsy [Use of cannabidiol in epilepsy treatment]. Revista Virtual de Química, 9(1), 786–814. https://doi.org/10.21577/1984-6835.20170049

15. Melo, L. A., & Santos, A. O. (2016). O uso do canabidiol no Brasil e o posicionamento do órgão regulador [The use of cannabidiol in Brazil and the regulator's position]. Cadernos Ibero-Americanos de Direito Sanitário, Brasília.

16. Ribeiro, J. A. C. (2014). A cannabis e suas aplicações terapêuticas [Cannabis and its therapeutic applications]. Master's thesis, Universidade Fernando Pessoa. https://www.proquest.com/openview/7b431c5be99770b949efbe236d68fd27. Accessed March 3, 2025.

17. Silvia, B., Cavalcante, C., Lyra, F., Rech, K., & Andrade, F. (2023). O uso medicinal da cannabis: Um aliado no combate à doença [Medicinal use of cannabis: an ally in disease treatment]. Revista FT. https://revistaft.com.br/o-uso-medicinal-da-cannabis-sativa-um-aliado-no-combate-a-doencas. Accessed March 1, 2025.

18. Viana, T., Viana, D., Albuquerque, F., & Silva, F. (2024). Avaliação da qualidade de vida em adolescentes portadores de epilepsia atendidos na atenção primária em um município do oeste do Pará [Quality-of-life assessment in adolescents with epilepsy treated in primary care in a municipality of western Pará]. ResearchGate. https://www.researchgate.net/publication/381617059. Accessed March 1, 2025.

19. Vianna, L. Q. S., Bogado, M. R. G., Franco, L. C. da S., Lisbôa, L. A., Paes, M. C. de S. T., Guidi, L. E. P., Barreto, M. S. S. C., Real, L. B. L. C., Moreira, C. M., & Junior, F. L. W. (2023). Uma visão abrangente da epilepsia: Etiologia, classificação e manifestações clínicas [A comprehensive view of epilepsy: etiology, classification, and clinical manifestations]. Brazilian Journal of Health Review, 6(4), 16654–16664. https://doi.org/10.34119/bjhrv6n4-205. Accessed March 1, 2025.