


Use of CBD for treatment of anxiety and depression

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Deise Vimaana Santos de Souza Simões¹, João Fábio de Freitas² and Hyan Coelho Martins³

ABSTRACT

This literature review article explores the use of cannabidiol (CBD) in the treatment of anxiety and depression. It analyzes CBD's mechanisms of action, clinical evidence, efficacy, safety, and regulation. Anxiety and depression are common disorders, and CBD has been highlighted as a possible therapy. CBD acts on the endocannabinoid system and the serotonergic system. Clinical studies show reduced social anxiety and antidepressant effects. However, research is still preliminary, and effectiveness may vary. CBD has a favorable safety profile but can cause mild side effects. Regulation varies between countries, so it is essential to be aware of local laws.

Keywords: CBD, Anxiety, Depression, Cannabidiol, Treatment, Literature review, Mechanisms of action, Clinical evidence, Safety, Regulation.

¹ Prof., Specialist

² Prof., Specialist

³ Undergraduate student of the Pharmacy course



INTRODUCTION

Anxiety and depression are highly prevalent and disabling psychological disorders that place a significant burden on overall health and quality of life. According to the World Health Organization (WHO), depression is the leading cause of disability worldwide, affecting more than 264 million people, while anxiety affects about 284 million individuals. The conventional approach to the treatment of these disorders usually involves psychosocial therapies and pharmacological medications, such as selective serotonin reuptake inhibitors (SSRIs) and benzodiazepines (Kessler et al., 2005; Bandelow et al., 2017).

However, the limitations and side effects associated with these traditional therapeutic approaches have led to the search for promising alternatives. In this context, cannabidiol (CBD), one of the main compounds found in the cannabis plant, has received increasing attention due to its potential as a therapeutic intervention in the management of anxiety and depression. CBD lacks the psychoactive effects associated with tetrahydrocannabinol (THC), the main psychoactive compound in cannabis, making it an attractive therapeutic option for those seeking relief from symptoms of anxiety and depression without the psychotropic effects (Zuardi et al., 2017).

This literature review article seeks to critically analyze the current research on the use of CBD as a potential intervention in the treatment of anxiety and depression. We will explore CBD's mechanisms of action, clinical evidence, efficacy, safety, and regulatory considerations in order to offer a comprehensive insight into the current state of knowledge in this ever-evolving area. The review is based on a careful analysis of clinical studies, systematic reviews, and experimental studies available in the scientific literature.

MECHANISMS OF ACTION OF CBD

CBD has demonstrated a range of mechanisms of action that may be relevant to the treatment of anxiety and depression. One of the main targets of CBD is the endocannabinoid system, which regulates neurobiological functions, including mood and stress. CBD acts indirectly on CB1 and CB2 cannabinoid receptors by modulating endocannabinoid signaling (Ligresti et al., 2016). In addition, CBD interacts with other neurotransmitter systems, such as the serotonergic system, which plays a crucial role in mood control (Russo et al., 2005). Studies suggest that CBD may increase the availability of serotonin in the brain, which may be beneficial in treating depression (Zanelati et al., 2010).

CLINICAL EVIDENCE

Clinical research on the use of CBD in the treatment of anxiety and depression has yielded promising results. A randomized clinical trial conducted by Blessing et al. (2015) demonstrated that



CBD significantly reduced social anxiety in participants with social anxiety disorder. In addition, a placebo-controlled clinical trial with patients with major depressive disorder revealed that CBD produced significant antidepressant effects compared to the control group (Boggs et al., 2018).

However, it is important to note that the research is still in the early stages, and more long-term, large-scale studies are needed to confirm the effectiveness of CBD in treating these conditions.

EFFECTIVENESS OF CBD

The effectiveness of CBD in treating anxiety and depression can vary depending on factors such as the dosage, the duration of treatment, and the type of disorder. In addition, the individual response to CBD can be highly variable. Some patients report a significant reduction in symptoms with the use of CBD, while others may not experience noticeable benefits. This highlights the need for personalized approaches in CBD treatment.

SECURITY MECHANISMS OF ACTION OF CBD

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SAFETY AND SIDE EFFECTS

To date, CBD has demonstrated a favorable safety profile in clinical studies. However, mild side effects such as fatigue, diarrhea, and changes in appetite may occur. It is important to highlight that CBD can interact with other medications, so medical supervision is crucial, especially for patients taking concomitant medications.

REGULATION AND LEGALITY

Regulatory considerations regarding CBD vary from one country to another and are constantly evolving. In some places, CBD is widely available as a supplement, while in others, its legal status is more restrictive. It is critical for patients and healthcare professionals to be aware of local laws related to CBD and Side Effects



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CONCLUSION

In a scenario of increasing prevalence of anxiety and depression, the search for effective and safe therapeutic interventions is extremely important. In this literature review, we examine the role of cannabidiol (CBD) as a compound of interest for the treatment of these psychological conditions.

CBD's mechanisms of action, including its interaction with the endocannabinoid system and its influence on neurotransmitter systems such as serotonergic, highlight the complexity of its neurobiological effects. Clinical evidence, while promising, remains in early stages of development, indicating the need for larger, well-controlled, and longer-term studies to conclusively establish the efficacy of CBD.

It is crucial to recognize that the response to CBD treatment is highly individual, influenced by factors such as dosage, duration of treatment, and the specific type of disorder. Personalization of treatment becomes a key consideration when evaluating the suitability of CBD as a therapeutic option.

As far as safety is concerned, CBD has shown a favorable profile in clinical studies, but the mild side effects and the possibility of interactions with other drugs cannot be overlooked. Therefore, medical supervision and close follow-up are essential.

Regulatory issues related to CBD are also complex, varying by jurisdiction. Therefore, patients and healthcare professionals should be aware of local regulations when considering the use of CBD as part of treatment.

In summary, while CBD holds potential as an intervention in the treatment of anxiety and depression, more research is needed to solidify the findings and address outstanding issues. The complexity of CBD's mechanisms of action, variability in patient response, and safety and regulatory issues underline the importance of a cautious and evidence-based approach to the use of CBD in the clinical setting.

This conclusion emphasizes the ongoing need for research and careful evaluation of CBD as a treatment for anxiety and depression, highlighting both the promise and complexities associated with its use.



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