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The Use of Cannabidiol in the Treatment of Anxiety Disorders: Evidence-Based Review

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Abstract

Introduction: *Cannabidiol (CBD) is a non-psychoactive compound derived from Cannabis sativa, whose use has aroused growing interest in anxiety disorders' management. Unlike tetrahydrocannabinol (THC), CBD does not cause alteration of the state of consciousness, making it safer for medical use.*

Objective: *The goal of the evidence-based review was to determine the impact of CBD use in the treatment of anxiety disorders in adults.*

Methods: *Two databases were searched in March 2025: Pubmed and Cochrane. We used the MeSH terms CBD, cannabidiol, anxiety and anxiety disorders, and included studies on adults assessing CBD effects on anxiety symptoms. Evidence level and recommendation strength were assessed using SORT (Strength of Recommendation Taxonomy).*

Results: *Of the 457 articles retrieved, 83 duplicates were excluded and 374 articles were screened. 9 were included in the final analysis: 2 meta-analyses (MA), 6 systematic reviews (SR) and 1 randomized controlled trial (RCT). Doses and duration of treatment were highly diverse, from 300mg to 800mg, and from a single CBD intake to a 12-week treatment. CBD was helpful to decrease anxiety symptoms in adults with an established diagnosis of anxiety disorder.*

Conclusion: *The evidence-based review suggests that CBD could be a promising treatment for anxiety disorders. However, a key limitation of the reviewed studies was their small sample sizes, which resulted in low statistical power. According to the Strength of Recommendation Taxonomy, the strength of recommendation for the use of CBD in treating anxiety disorders in adult patients is Grade B, based on inconsistent or limited-quality patient-oriented evidence.*

Keywords: CBD, Cannabidiol, Anxiety Disorders, Review.

Introduction

Cannabidiol (CBD) is one of the main non-psychoactive compounds of the Cannabis sativa plant, distinguished from tetrahydrocannabinol (THC) by not altering consciousness or inducing dependence. CBD has been studied for its therapeutic potential in various neuropsychiatric conditions, including anxiety disorders, due to its modulatory action on the endocannabinoid system and serotonergic receptors [1, 2]. CBD is used in several countries; however, it has not been approved yet by any regulatory entity for the treatment of anxiety, reflecting the need for more robust evidence regarding its efficacy and safety [3].

Conventional therapeutic options for anxiety include psychotherapy - particularly cognitive behavioral therapy (CBT) - and pharmacotherapy, namely selective serotonin reuptake inhibitors (SSRIs), benzodiazepines, and other anxiolytics. Interest in CBD arises due to its favorable safety profile and the demand for alternatives with fewer adverse effects and a lower risk of dependence [4, 5].

The potential benefits of CBD include anxiolytic effects observed in preclinical studies and small-scale clinical trials, with reports of good tolerability and few side effects, such as fatigue or sedation [5,6]. However, uncertainties remain regarding the ideal dosage, treatment duration, drug interactions, and long-term effects on the individual [7,8]. Moreover, variability in the quality of available products and the lack of standardization in its use hinder the extrapolation of results to clinical practice [11].

Current evidence suggests an overall favorable safety profile, but the absence of robust long-term data and variability in available products justify a cautious and individualized approach [8-10].

The rationale for this evidence-based review lies in the growing demand from patients for alternative therapies, the need to clarify the indications, benefits, and risks of CBD use, and the central role of healthcare professionals in guiding and supporting patients with anxiety, promoting informed and safe clinical decisions [12].

The goal of the evidence-based review was to determine the impact of CBD use in the treatment of anxiety disorders in adult patients.

Methodology

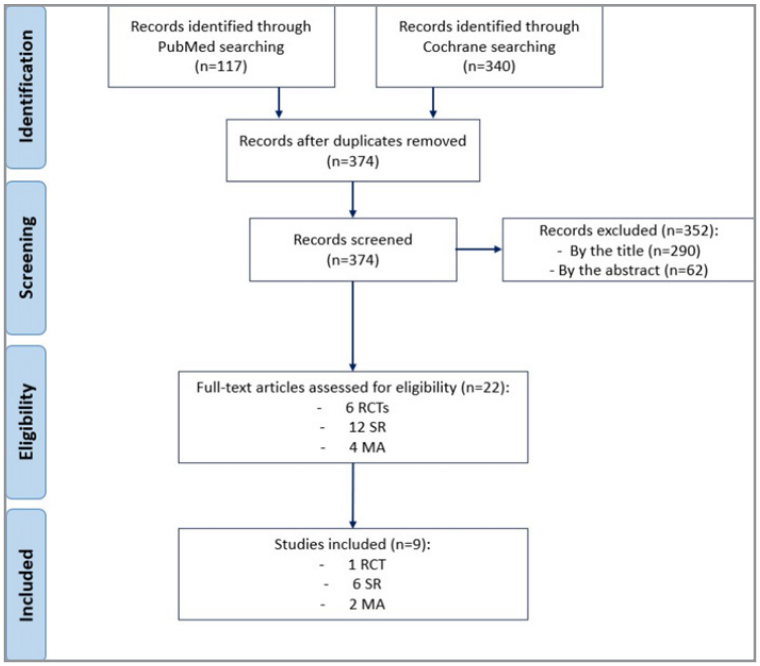
In March 2025 a search was conducted with the following MeSH terms (Medical Subject Headings) CBD, Cannabidiol, Anxiety Disorders and Review, through PubMed and the Cochrane Library.

We included studies published in English or Portuguese, involving adult populations with a clinical diagnosis of an anxiety disorder, assessing the effects of an intervention with CBD, comparing CBD with placebo or other active treatments, and reporting an effect on anxiety symptoms as the primary outcome. We excluded randomized controlled trials already included within the selected systematic reviews or meta-analyses. Case reports, study protocols, expert opinions and narrative literature reviews were also excluded.

To classify the level of evidence and strength of recommendation for each included study, the Strength of Recommendation Taxonomy (SORT), developed by the American Academy of Family Physicians, was applied.

Results and Discussion

The search identified a total of 457 records — 117 from PubMed and 340 from Cochrane. 83 duplicates were removed. Through 374 records screened, 22 were assessed by full-text. Nine studies were according to our inclusion criteria: 1 randomized clinical trial (RCT), 6 systematic reviews (SR) and 2 systematic reviews with meta-analysis (MA) - Figure 1.



RCT= randomized clinical trial; SR= systematic review; MA= meta-analysis

Figure 1: Flowchart of study screening and selection.

Randomized Clinical Trial

The RCT by Gundugurti et al. consisted of a prospective, randomized,double-blind, parallel group, multicenter comparative study with the primary objective of evaluate the efficacy, safety, and pharmacokinetics of nanodispersible CBD oral solution versus placebo for the treatment of mild to moderate anxiety disorders - Table 1.

Table 1: Randomized Controlled Trial results.

	Gundugurti et al (2024)
Study	prospective, randomized, double-blind, parallel group, multicenter comparative study.
Primary endpoint	To evaluate the efficacy, safety, and pharmacokinetics of nanodispersible CBD oral solution versus placebo for the treatment of mild to moderate anxiety disorders.
Population	178 participants were randomized to receive CBD (n=89) or placebo (n=89).
Intervention	CBD 300mg/day for week 1, 450mg/day for week 2, 600mg/day for week 3 and maintain the maximum tolerated dose for 8 weeks (duration of 11 weeks total).
Comparator	Placebo oral solution.
Evaluated Outcomes	The primary outcome measures are based on the GAD-7 and HAM-A scores. Secondary outcome assessments were CGI-I, CGI-S, PHQ-9, and PSQI, with predetermined cut-off scores.
Results	300-600mg of CBD for 12 weeks was therapeutically safe with no serious adverse events, well tolerated, and effective for the treatment of mild to moderate anxiety disorders, as well as associated depression and sleep quality disturbances.
Evidence Level (SORT)	2

178 adult patients with anxiety disorder according to ICD-11 criteria were randomized and assigned to placebo or CBD group, in a 1:1 ratio. The allocation of participants to each group was carried out by individuals external to the researchers, although the method used is not described. In week 1, the intervention group received 300mg/day of CBD as a nano-dispersible oral solution, followed by 450mg/day in week 2, 600mg/day since week 3 and maintained the maximum tolerated dose for 8 weeks. The control group was administered only with placebo oral solution. The primary outcome measures were based on the Generalized Anxiety Disorder-7 (GAD-7) and Hamilton Anxiety Rating Scale (HAM-A) scores. Secondary outcome assessments were Clinical Global Impression-Improvement (CGI-I), Clinical Global Impression-Severity (CGI-S), Patient's Health Questionnaire-9 (PHQ-9), and Pittsburgh Sleep Quality Index (PSQI), with predetermined cut-off scores. GAD-7 and HAM-A scores were gradually reduced since week 2 until week 13. Hence, the authors concluded that the administration of 300-600mg of CBD for 12 weeks is safe and effective in treating mild to moderate anxiety disorders. This article was assigned level 2 on the SORT scale.

CBD = Cannabidiol; GAD-7 = Generalized Anxiety Disorder-7; HAM-A = Hamilton Anxiety Rating Scale; CGI-I = Clinical Global Impression - Improvement; CGI-S = Clinical Global Impression-Severity; PHQ-9 = Patient Health Questionnaire-9; PSQI = Pittsburgh Sleep Quality Index.

Systematic Reviews

Fielgel et al, included 4 studies that assessed CBD administration in 207 healthy volunteers - not according to our inclusion criteria - and 3 studies that assessed CBD in 71 patients with SAD. The studies that evaluated the effect of CBD in SAD patients suggest that repeated administration of CBD is effective in decreasing social anxiety symptoms, consistent with prior studies examining acute CBD administration prior to anxiogenic experimental public speaking paradigms. This is a SR conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. The methodology used is thoroughly described and the risk of bias for each included article is assessed. However, limitations of this SR include the fact that two of the studies included were found to have potential bias attributed to missing outcome data and crossover effects, there was substantial variability in the timing between CBD administration and testing, and although nearly twice as many women than men are diagnosed with SAD, women were underrepresented in these studies (n=100 female vs n=178 male participants). For these reasons, this review was assigned an evidence level of 2 on the SORT scale - Table 2.

Coelho et al, aimed to determine whether CBD exhibits an anxiolytic effect, and, if so, whether CBD's effects surpassed those of conventional pharmaceutical treatments. It included 7 studies, all placebo-controlled RCTs, although only 5 evaluated anxiety symptoms in individuals diagnosed with an anxiety disorder. As the primary outcome, the authors defined the improvement of anxiety symptoms. Authors concluded that, overall, despite the conflicting results observed across the studies, CBD shows some promise in alleviating anxiety, particularly when compared to placebos. This is a systematic review (SR) conducted in accordance with the PRISMA guidelines. The methodology used is thoroughly described and the risk of bias for each included article is assessed. However, limitations of this SR include not specifying the type of anxiety studied, and classifying many important items of the Cochrane Collaboration's Tool as unclear for risk of bias, consequently, affecting the overall quality assessment of the studies included. For these reasons, this review was assigned an evidence level of 2 on the SORT scale.

Khan et al, aimed to review the efficacy, safety, and psychiatric benefits of CBD. It included 23 articles, namely 8 randomized placebo-controlled clinical trials, 1 clinical trial, 4 open-label trials, 1 retrospective chart review, 7 case reports and 2 case series, although only 3 evaluated anxiety symptoms in individuals diagnosed with an anxiety disorder. As the primary outcome, the authors defined the improvement of anxiety symptoms. Authors concluded that, overall, the evidence reviewed favors CBD use for patients with anxiety related to SAD, with a lower recommendation for anxiety disorder. This is a systematic review (SR) conducted in accordance with the PRISMA guidelines. The methodology used is thoroughly described and the risk of bias for each included article is assessed. However, limitations of this

SR include the fact that only one-third of studies (8/23) were RCTs and most of those had a small sample size decreasing the power of the study to draw robust conclusions. For these reasons, this review was assigned an evidence level of 2 on the SORT scale.

Pavel et al, evaluated the effect of CBD as monotherapy or add-on therapy in psychiatric disorders' severity (schizophrenia, substance use disorders and anxiety disorders). It included 9 studies, only 2 assessing the effect of CBD in anxiety disorders, both with patients with SAD. This is a SR conducted in accordance with the PRISMA guidelines. Authors concluded that patients receiving either 400mg or 600mg single dose of CBD had significantly lower levels of subjective anxiety compared to controls. However, they emphasize the extremely low number of quality studies about this. For these reasons, this review was assigned an evidence level of 1 on the SORT scale.

Skelley et al, assessed the safety and efficacy of CBD in the management of anxiety and anxiety-related disorders. This SR included 8 studies, but only 3 were according to our inclusion criteria. 2 RCTs included patients with SAD, and CBD was administered as a single dose of 400mg and 600mg. Both assessed the effect of CBD with Visual Analogue Mood Scale (VAMS) and concluded that CBD significantly reduced anxiety symptoms, compared to the placebo group. 1 Case series included patients with GAD and the authors concluded that CBD improved anxiety based on HAM-A scores at the 1-month subsequently 2-month assessment. There was no appreciable difference in mean HAM-A scores between the 2-month and 3-month follow-up assessments. This is a SR conducted in accordance with the PRISMA guidelines. This review was assigned an evidence level of 1 on the SORT scale.

Khoury et al, aimed to determine the therapeutic effects, adverse effects and long-term safety of CBD in psychiatric disorders. This is a SR conducted in accordance with the PRISMA guidelines. It included 21 clinical trials and 13 articles, and only 2 RCT evaluated CBD's effect on anxiety disorders and were according to our inclusion criteria. In both of these studies, CBD seemed to improve anxiety symptoms, compared to the placebo group. The authors classified the category of evidence for acute and long-time treatment CBD use in SAD as C1, recommendation grade 4 and F, respectively. The authors identify the limitations of the included studies and interpret the results with caution in this context. For these reasons, this review was assigned an evidence level of 1 on the SORT scale.

Fielgel et al included 4 studies that assessed CBD administration in 207 healthy volunteers - not according to our inclusion criteria - and 3 studies that assessed CBD in 71 patients with SAD. The studies that evaluated the effect of CBD in SAD patients suggest that repeated administration of CBD is effective in decreasing social anxiety symptoms, consistent with prior studies examining acute CBD administration prior to anxiogenic experimental public speaking paradigms. This is a SR conducted in accordance with the PRISMA guidelines. The methodology used is thoroughly described and the risk of bias for each included article is assessed. However, limitations of this SR include the fact that two of the studies included were found to have potential bias attributed to missing outcome data and crossover effects, there was substantial variability in the timing between CBD administration and testing, and although nearly twice as many women than men are diagnosed with SAD, women were underrepresented in these studies (n=100 female vs n=178 male participants). For these reasons, this review was assigned an evidence level of 2 on the SORT scale.

Table 2: Systematic reviews results.

	Fliegel et al (2022)	Coelho et al (2024)	Khan at al (2020)
Population / Intervention	3 RCTs (n=71), patients with SAD: - N=36, M; - N=10, M; - N=37, F/M. - 600mg CBD; - 400mg CBD; - 300mg CBD daily for 1 month. 4 studies – not according to inclusion criteria.	1 RCT (n=80, F), patients with refractory SAD or agoraphobia. - CBD 300mg 2h before 8 exposures treatment sessions (CBT) studies – not according to inclusion criteria.	1 RCT (N=24, F/M), patients with SAD. 1 Retrospective chart review (N=47, F/M), patients with anxiety disorder. - CBD 600mg single dose; 175mg (most patients received 25mg), during 3 months 21 studies – not according to inclusion criteria.
Diagnosis	Social Anxiety Disorder	Refratory SAD or agoraphobia	Social Anxiety Disorder Anxiety Disorder
Evaluated Outcomes	Effects of CBD on experimentally-induced social anxiety and no social anxiety symptoms among individuals with SAD. Outcome measures: VAMS, SSPS-N, rCBF, FNE and LSAS.	Determining whether CBD exhibits an anxiolytic effect. Outcome measures: BAI, FQ and LSAS.	Compare the anxiolytic effect between CBD and placebo in the treatment of anxiety. Outcome measures: Mini-SPIN, VAMS, SSPS-N, SSPS, BSS, HAM-A and PSQI.

Results	Social anxiety symptoms among individuals with SAD (3 RCT, n=71): all 3 studies found that CBD reduced anxiety pre, post and during stress.	- Agoraphobia (1 RCT, n=80): the study did not find differences between CBD and placebo - Remaining studies assessed situations outside the inclusion criteria.	- Social Anxiety Disorder [public speech] (1 RCT, n=24): the study found that CBD significantly reduced anxiety related to public speaking - Anxiety Disorder (1 retrospective chart review, n=47): the review found that CBD significantly reduced anxiety after 1, 2 and 3 months of treatment - Remaining studies assessed disorders outside the inclusion criteria.
Conclusions	The literature reviewed supports the anxiolytic effect of CBD administration, both among healthy volunteers undergoing experimental social anxiety paradigms, as well as individuals with SAD.	CBD shows some promise in alleviating anxiety, particularly when compared to placebos Despite the conflicting results, CBD seems to have a favourable safety profile and minimal adverse effects.	The evidence reviewed favors CBD use for patients with anxiety related to SAD, with a lower recommendation for anxiety disorder.
Evidence Level (SORT)	2	2	2
	Pavel et al. (2021)	Skelley et al. (2019)	Khoury et al. (2017)
Population / Intervention	2 RCTs, patients with SAD - N=36, M/F - N=10, M - CBD 600mg single dose - CBD 400mg single dose 7 studies – not according to inclusion criteria.	2 RCTs (N= 46), patients with SAD - N=36, M/F - N= 10, M 1 Case series (N=47, M/F), patients with GAD - CBD 600mg single dose - CBD 400mg single dose - CBD 25-175mg/day, for 3 months 5 studies – not according to inclusion criteria.	2 clinical trials (N= 46), patients with SAD N=10, M N=36, M/F - CBD 400mg - CBD 600mg 4 studies - not according to inclusion criteria.
Diagnosis	Social Anxiety Disorder	Social Anxiety Disorder and Generalized Anxiety Disorder	Generalized Anxiety Disorder
Evaluated Outcomes	Effect of CBD on subjective anxiety symptoms. Outcome measures: VAMS and SSPS-N	Determining whether CBD exhibits an anxiolytic effect. Outcome measures: VAMS and HAM-A	Determine the therapeutic effects, adverse effects and long -term safety of CBD in psychiatric disorders. Outcome measures: VAMS,SPECT scanning and SSPS-N

Results	Participants who received 400mg and 600mg of CBD reported significantly lower levels of subjective anxiety compared to controls	- Social Anxiety Disorder (2 RCTs, n=46): 400mg and 600mg of CBD single dose seemed to show a promising impact with a rapid-onset therapeutic effect. -Generalized Anxiety Disorder: (1 case series, n= 72): with 3-month timeframe of CBD administration, anxiety scores decreased over the course of the study.	- Social Anxiety Disorder (2 RCTs, n=46): an effect of CBD administration in reducing acute anxiety in patients with SAD was confirmed. - Remaining studies assessed disorders outside the inclusion criteria.

CBD = Cannabidiol; SAD = social anxiety disorder; VAMS = Visual Analogue Mood Scales; SSPS-N = Negative Self-Statements subscale of the Self-Statements During Public Speaking; rCBF = Regional Cerebral Blood Flow; FNE = Fear of negative evaluation; LSAS = Liebowitz Social Anxiety Scale; BAI= Beck Anxiety Inventory; Mini-SPIN = Mini-Social Phobia Inventory; BSS = Beck Scale for Suicidal Ideation; HAM-A = Hamilton Anxiety Rating Scale; PSQI = Pittsburgh Sleep Quality Index.

Systematic Reviews and Meta-Analysis

Black et al. assessed the use of different types of medicinal cannabinoids in remission or change in symptoms of various psychiatric disorders. This study evaluates the effect of different medicinal cannabinoids (for example, CBD, nabilone, THC, nabiximols) in many psychiatric disorders, such as social anxiety disorder, depression, ADHD, Tourette syndrome, Post Traumatic Stress Syndrome (PTSD) and psychosis. We only considered the 2 studies that assessed the effect of CBD in social anxiety disorder's patients. As a primary outcome the authors considered the remission from the psychiatric disorder or change in symptoms. Therefore, 44 patients with SAD were analysed and the authors verified that neither CBD 400mg nor 600mg showed a significant improvement in anxiety symptoms compared to placebo. Serious inconsistency and very serious imprecision were reported in the included studies of this MA. According to the Grading of Recommendations Assessment, Development and Evaluation (GRADE System), the evidence is very low. This review was assigned an evidence level of 2 on the SORT scale - Table 3.

Han et al. evaluated the effect of cannabidiol on anxiety symptoms in different anxiety disorders. Patients diagnosed with SAD, GAD, healthy volunteers and patients with high paranoia and PTSD were included in this study. According to our inclusion criteria, only the studies with SAD and GAD patients were included in the analysis. Only two subgroup analyses were performed in this MA: concerning continuous treatment of CBD and the risk of bias. No subgroup analysis was performed grouping studies according to the underlying psychiatric disease that causes the anxiety symptoms. Therefore, we cannot statistically conclude what is the effect of CBD on patients with primary anxiety disorder. However, analysing the individual effect of each study that met the inclusion criteria, we can verify that in each study the overall effect of CBD improved anxiety symptoms. The authors concluded that the existing preliminary human literature suggests a potential therapeutic efficacy of CBD in the treatment of anxiety disorders. For these reasons, this review was assigned an evidence level of 2 on the SORT scale.

Table 3: Systematic reviews and meta-analysis results.

	Black et al. (2019)	**Han et al. (2024)**
Population / Intervention	2 studies (N=44), patients with social anxiety. - CBD 400mg single dose - CBD 600mg single dose - Other medicinal cannabinoids were not according to inclusion criteria 78 studies – not according to inclusion criteria.	4 studies included (N=125): - 2 RCTs, (N=47) patients with SAD; - 1 retrospective case open-label, (N=47) patients with anxiety; - 1 open-label single arm, (N=31) patients with anxiety disorder DSM-5. - CBD 400mg, single dose - CBD 300mg, 4 weeks - CBD 25-175mg, 4 weeks - CBD 800mg, 12 weeks 4 studies - not according to inclusion criteria.
Diagnosis	Social Anxiety Disorder	Social Anxiety Disorder and Generalized Anxiety Disorder
Evaluated Outcomes	Effect of medicinal cannabinoids on remission from anxiety and change in anxiety symptoms.	Determining whether CBD exhibits an anxiolytic effect Outcome measures: VAMS, FNE LSAS, HAM-A and OASIS.

Results	Anxiety Disorder (2 RCTs, n=44): did not find a significant improvement in anxiety symptoms compared to placebo. Serious inconsistency and very serious imprecision detected.	Statistically significant reductions in anxiety symptoms. Remaining studies assessed situations outside the inclusion criteria.
Conclusions	It found very little evidence on the effectiveness of pharmaceutical CBD in anxiety treatment.	CBD may be effective in reducing anxiety symptoms associated with SAD, both short-term and long-term administration. There was considerable heterogeneity 2 among the included studies (I =83%).
Evidence Level (SORT)	2	2

CBD = Cannabidiol; SAD = social anxiety disorder; VAMS = Visual Analogue Mood Scales; FNE = Fear of negative evaluation; LSAS = Liebowitz Social Anxiety Scale; HAM-A = Hamilton Anxiety Rating Scale; PSQI = Pittsburgh Sleep Quality Index; OASIS = Outcome and Assessment Information Set.

The assessment of the impact of CBD on anxiety was measured in distinct ways among all the reviewed studies, namely using VAMS, Fear of Negative Evaluation Questionnaire (FNE), Self-Statements during Public Speaking Scale (SSPS-N), regional cerebral blood flow (rCBF), Liebowitz Social Anxiety Scale (LSAS), mini-Social Phobia Inventory (mini-SPIN), PSQI, HAM-7, BAI (Beck Anxiety Disorder), GAD-7, Overall Anxiety Severity and Impairment Scale (OASIS) and Bodily Symptoms Scale (BSS).

The duration of CBD administration is also highly variable between the included studies. For instance, some evaluated the anxiety levels 90-230 minutes after a single dose of CBD, and others, assessed the effect of daily administration from 4 to 12 weeks.

Study Limitations

The review has important limitations. First, the methodological quality of the included studies is variable, with many involving small sample sizes and lacking robust control conditions. Second, most studies focused exclusively on the acute effects of CBD, with limited data available on long-term efficacy and safety—an important consideration given the chronic nature of anxiety disorders. Third, significant heterogeneity across study designs, populations, dosing protocols and outcome measures hinders the ability to conduct a rigorous comparison of the results between the studies included.

Based on the studies included in the review, the use of CBD in the treatment of anxiety disorders demonstrates promising, yet inconsistent results. Several randomized controlled trials and systematic reviews suggest that acute and chronic administration of CBD—particularly in doses between 300 mg and 600 mg—can reduce anxiety symptoms in patients with social anxiety disorder (SAD) and generalized anxiety disorder (GAD), with minimal adverse effects. However, significant variability in study designs, sample sizes, CBD dosing regimens and inclusion criteria weakens the strength of the overall evidence. While some high-quality RCTs support sustained benefit with prolonged use, others report no significant improvement and highlight serious inconsistency and imprecision. According to the Strength of Recommendation Taxonomy (SORT), the strength of recommendation for the use of CBD in treating anxiety disorders in adult patients is Grade B, based on inconsistent or limited-quality patient-oriented evidence.

Additional double-blind, placebo-controlled RCTs with larger sample sizes are necessary to assess the efficacy, optimal dosing, and long-term effects of CBD in the treatment of anxiety disorders in adult patients.

Conclusions

The analysis of the selected studies highlights the potential therapeutic role of CBD in reducing symptoms associated with anxiety disorders, particularly SAD. Most of the included RCTs suggest that acute administration of CBD — typically in doses ranging from 300 mg to 600 mg—leads to a significant reduction in subjective anxiety levels, improvement in social performance and relief of cognitive symptoms such as anticipatory anxiety and speech impairment. Studies by Fliegel et al, Khan et al, and Skelley et al. converge in demonstrating clinically meaningful anxiolytic effects of CBD. These effects appear to occur more rapidly than those of SSRIs and CBD exhibits a more favorable side effect profile compared to benzodiazepines. These findings support the hypothesis that CBD could serve as a promising alternative for patients who are either resistant or intolerant to conventional pharmacological treatments.

However, substantial methodological heterogeneity exists among the included studies. There is wide variability in CBD dosing (ranging from 25 mg to 800 mg), frequency of administration (single-dose vs. repeated dosing), and patient populations (e.g., SAD, agoraphobia, generalized anxiety disorder), which limits direct comparability across studies. Additionally, a lack of standardization in outcome measures and assessment tools further complicates interpretation and synthesis of the findings. Of particular note is the study by Coelho et al, which broadens the scope of research by including a sample of female patients with agoraphobia. While this represents a valuable expansion of the scope of research, the absence of detailed results in the summary table precludes firm conclusions regarding CBD's efficacy in this subgroup. Our findings are largely consistent with the available literature on the anxiolytic potential of CBD [13]. conducted a systematic review and concluded that CBD shows promise as an anxiolytic across different anxiety disorders, which aligns with our observation of its rapid onset of effects

compared to SSRIs and its favorable safety profile [12-14]. Reported clinically meaningful reductions in anxiety scores among patients with various anxiety disorders following CBD administration, corroborating our conclusion that CBD may serve as an alternative for patient's intolerant to conventional treatments. Vela et al. emphasized the efficacy of acute administration in reducing subjective anxiety in social contexts, consistent with our synthesis that highlighted benefits in SAD, particularly in improving anticipatory anxiety and performance-related symptoms [14,15]. More recently, stressed the importance of addressing methodological variability and the lack of standardized dosing regimens, which mirrors our concern regarding heterogeneity in study design, dosing, and outcome measures [15]. Taken together, these findings reinforce the therapeutic potential of CBD in anxiety disorders while underscoring the need for more rigorous, standardized clinical trials to establish optimal dosing and long-term safety [16].

Ethical Considerations

The authors declare that they have no conflicts of interest related to this work.

Author Contributions

BS was responsible for conceptualization, methodology, formal analysis and writing. J.N. was responsible for conceptualization, methodology, formal analysis and writing. C.H.R. was responsible for conceptualization, methodology, formal analysis and writing. I.R. was responsible for conceptualization, methodology, formal analysis and writing. F.C.P. was responsible for conceptualization, methodology, formal analysis and writing. L.S. was responsible for conceptualization, methodology, formal analysis and writing. All authors have read and approved the final version submitted and take public responsibility for all aspects of the work.

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