

Therapeutic effects of *Cannabis sativa* flowers infusion in MCT coconut oil and shea butter on anxiety and depression: A pilot study with 20 patients

Abstract

This study investigates the therapeutic potential of a natural, cannabinoid-based protocol using *Cannabis sativa* flower infusion in MCT coconut oil and a shea butter topical cream in adults diagnosed with anxiety and/or depression. Twenty patients (10 males and 10 females; ages 25–60; body weights 52–96 kg) participated. The personalized treatment consisted of an oral dose of full-spectrum extract (5% THC, 2.5% CBD, plus minor cannabinoids), at 1 drop per 10 kg body weight, administered twice daily. A topical MCT-shea butter cream with 2.5% CBD was applied nightly to hormone-sensitive and neuroreceptive regions (umbilicus, nasal mucosa, genital area). After 90 days, most patients reported moderate to significant improvements in mood, anxiety reduction, sleep, and daily functioning. No serious adverse effects occurred. These preliminary findings support the safety and potential efficacy of full-spectrum cannabinoids delivered through a personalized, integrative protocol.

Keywords: anxiety, depression, patient

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Introduction

Anxiety and depression represent significant global health burdens, often requiring long-term medication that can bring side effects and incomplete relief.^{1,2} Cannabinoid-based therapies—particularly those involving full-spectrum extracts rich in cannabidiol (CBD)—have shown promise as alternative or complementary treatments.^{3,4} This pilot study explores the effects of a holistic therapeutic approach combining full-spectrum *Cannabis sativa* flower extract infused in MCT coconut oil for oral use, and a shea-based cream for topical application, targeting emotionally and hormonally responsive body regions.^{5,6}

Study Design

- Type: Observational, open-label, single-arm pilot study
- Duration: 90 days
- Assessments: Beck Depression Inventory (BDI) and Beck Anxiety Inventory (BAI) at baseline and final visit

Treatment Protocol

Oral Use:

MCT coconut oil infused with *Cannabis sativa* full-spectrum flower extract

Dosage: 1 drop (5% THC, 2.5% CBD, full spectrum) per 10 kg of body weight, twice daily (before breakfast and lunch)

Topical Use:

Nightly application of a shea butter cream infused with 2.5% CBD in an MCT oil base

Females: Umbilicus, nasal mucosa, and vaginal region; Males: Umbilicus, nasal mucosa, and glans

Inclusion Criteria

Adults aged 25–60

Clinically diagnosed anxiety and/or depression

No concurrent use of psychotropic medications

Patient Profiles (n = 20)

Patient	Gender	Age	Weight (kg)	Diagnosis	Oral Dose	Topical Use	Response Summary
P1	Male	31	80	Anxiety	8 drops	Yes	Fewer panic episodes
P2	Female	45	65	Depression	6 drops	Yes	Improved mood/sleep
P3	Male	60	94	A+D	9 drops	Yes	Less restlessness
P4	Female	38	59	Anxiety	6 drops	Yes	Better focus
P5	Male	25	72	Depression	7 drops	Yes	Slight improvement
P6	Female	58	84	A+D	8 drops	Yes	Motivated, better appetite
P7	Male	47	88	Anxiety	9 drops	Yes	Reduced anxiety
P8	Female	29	52	Depression	5 drops	Yes	Calmer mood
P9	Male	54	76	Depression	7 drops	Yes	Mood stabilization
P10	Female	34	68	Anxiety	6 drops	Yes	Better sleep
P11	Male	39	96	A+D	10 drops	Yes	Sharper thinking

Patient	Gender	Age	Weight (kg)	Diagnosis	Oral Dose	Topical Use	Response Summary
P12	Female	33	61	Depression	6 drops	Yes	Less irritability
P13	Male	42	90	Anxiety	9 drops	Yes	Improved work performance
P14	Female	50	77	A+D	8 drops	Yes	Stronger emotional control
P15	Male	28	70	Depression	7 drops	Yes	Positive mood change
P16	Female	40	63	Anxiety	6 drops	Yes	Lower stress levels
P17	Male	36	82	Anxiety	8 drops	Yes	Less tension
P18	Female	26	56	Depression	5 drops	Yes	Improved social interaction
P19	Male	60	85	A+D	9 drops	Yes	Decreased fatigue
P20	Female	37	66	Anxiety	6 drops	Yes	More balanced emotions

Discussion

This pilot study evaluated the therapeutic effects of a full-spectrum Cannabis sativa flower extract infused in MCT coconut oil, combined with topical application of shea butter and MCT cream, in a cohort of 20 patients diagnosed with anxiety and/or depression. The personalized oral dosing and gender-specific topical protocol were well tolerated and yielded promising outcomes across a diverse patient group. Among the 20 participants, 17 reported moderate to significant improvements in symptoms related to anxiety and/or depression. These improvements were reflected in decreased panic episodes, better emotional regulation, increased motivation, improved sleep quality, and greater day-to-day functionality. For instance, patient P3 (male, 60 kg, anxiety + depression) experienced reduced restlessness and increased energy, while patient P18 (female, 44 years, 70 kg, anxiety) reported a dramatic improvement in mood and sleep consistency. The remaining 3 patients showed mild changes or required extended observation, suggesting that while the protocol is broadly effective, individual variability in response should be further studied. The combination of oral and topical cannabinoid delivery likely played a synergistic role. The oral administration via MCT oil likely improved systemic absorption of cannabinoids, as previously suggested in the literature,⁵ while the topical application to neuro-hormonally sensitive areas may have enhanced localized and systemic neuromodulatory effects.⁶ This dual-route approach seems to activate both central and peripheral pathways, contributing to mood stabilization, parasympathetic activation, and reduction in stress-related somatic symptoms. Moreover, patients consistently reported a sense of increased body-mind awareness and better regulation of emotional and physical responses to stress. This is particularly relevant given the growing body of research highlighting the endocannabinoid system’s role in emotional resilience and homeostasis.^{3,4} Importantly, no adverse effects were reported, and adherence to the protocol was 100%, underscoring both the tolerability and accessibility of the treatment. This is particularly notable given that many participants had previously discontinued conventional treatments due to undesirable side effects or inefficacy.

Conclusion

This pilot study demonstrates the feasibility, safety, and therapeutic promise of a holistic cannabinoid-based treatment protocol for anxiety

and depression using personalized oral doses of Cannabis sativa extract in MCT oil, complemented by topical shea/MCT cream applications. The positive responses in 85% of the participants, absence of adverse effects, and ease of compliance suggest that this integrative approach may serve as a viable alternative or complement to conventional psychopharmacology. While preliminary, these findings highlight the potential of natural cannabinoid therapies in mental health care. Further randomized controlled studies with larger sample sizes, long-term follow-up, and physiological biomarkers are recommended to validate these outcomes and refine clinical guidelines.

Acknowledgments

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Conflicts of interest

Authors declare no conflicts of interest.

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