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CLINICAL FOCUS: PAIN MANAGEMENT  
ORIGINAL RESEARCH

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## Evaluation of the effects of CBD hemp extract on opioid use and quality of life indicators in chronic pain patients: a prospective cohort study

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### ABSTRACT

**Context:** Chronic pain is highly prevalent in most of the industrialized nations around the world. Despite the documented adverse effects, opioids are widely used for pain management. Cannabinoids, and specifically Cannabidiol, is proposed as an opioid alternative, having comparable efficacy with better safety profile.

**Objectives:** We aim to investigate the impact of full hemp extract cannabidiol (CBD) on opioid use and quality of life indicators among chronic pain patients.

**Methods:** An initial sample of 131 patients was recruited from a private pain management center's investigative population. Ninety-seven patients completed the 8-week study. The primary inclusion criteria included patients between 30 and 65 years old with chronic pain who have been on opioids for at least 1 year. Data were collected at three different time points: baseline, 4, and 8 weeks. Opioid and other medication use were evaluated via the medication and psychiatric treatment receipt. Improvement was evaluated using four indices: Pain Disability Index (PDI-4); Pittsburgh Sleep Quality Index (PSQI), Pain Intensity and Interference (PEG); and Patient Health Questionnaire (PHQ-4).

**Results:** Over half of chronic pain patients (53%) reduced or eliminated their opioids within 8 weeks after adding CBD-rich hemp extract to their regimens. Almost all CBD users (94%) reported quality of life improvements. The results indicated a significant relationship between CBD and PSQI ( $p = 0.003$ ), and PEG ( $p = 0.006$ ). There was a trend toward improvement but no significant relationship between CBD use and PHQ and PDI.

**Conclusion:** CBD could significantly reduce opioid use and improve chronic pain and sleep quality among patients who are currently using opioids for pain management.

**Key Message:** This is a prospective, single-arm cohort study for the potential role of cannabinoids as an alternative for opioids. The results indicate that using the CBD-rich extract enabled our patients to reduce or eliminate opioids with significant improvement in their quality of life indices.

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