The largest cannabis study ever conducted found no evidence it helps anxiety, depression, or PTSD and warned it may be making all three worse

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About 27 percent of people aged 16 to 65 in the United States and Canada have used cannabis for medical purposes, with about half using it to manage their mental health. Anxiety. Depression. PTSD. These are the three conditions that drive the majority of medicinal cannabis prescriptions across North America, Australia, and Europe. They are also the three conditions for which the largest review of medicinal cannabis ever conducted just found no evidence that it works.

The study, published in The Lancet Psychiatry on March 17, 2026, was led by Dr. Jack Wilson at the University of Sydney's Matilda Centre. It analyzed 54 randomized controlled trials spanning 45 years. Not a small sample. Not a narrow methodology. The most comprehensive assembly of clinical evidence on this question that has ever been put together. And after pooling and analyzing it all, the conclusion was the same across every primary mental health indication driving the market: no evidence of effectiveness.

What the Review Actually Examined

The scope of the Wilson review matters for understanding what its findings do and do not establish. The analysis examined both the safety and effectiveness of cannabinoids across a wide range of mental health conditions, including anxiety disorders, major depressive disorder, PTSD, psychotic disorders, attention deficit hyperactivity disorder, autism spectrum disorder, sleep disorders, and several substance use disorders. The cannabinoid products studied included both CBD and THC products, covering the full range of preparations currently prescribed in legal medicinal cannabis markets.

The systematic review and meta-analysis methodology, which pools the results of multiple randomized controlled trials to identify patterns across a larger combined dataset than any individual study can provide, represents the highest level of evidence available in clinical medicine. A single clinical trial can be affected by sample size, population selection, dosing protocols, and statistical chance. A meta-analysis of 54 randomized controlled trials across 45 years is not vulnerable to those individual limitations in the same way.

What it found for anxiety, depression, and PTSD was not weak evidence. It was an absence of evidence. The clinical trials conducted over four and a half decades, using the full range of cannabinoid preparations available, across diverse patient populations and study designs, did not produce a reliable signal of therapeutic benefit for the three conditions that now justify the majority of prescriptions.

The Gap Between Experience and Evidence

The finding will feel wrong to a significant number of people who use cannabis for anxiety or depression and experience relief. That subjective experience is real and deserves honest engagement rather than dismissal. But understanding what the clinical trial evidence is and is not measuring helps clarify why the gap exists.

Cannabis produces immediate pharmacological effects that many people describe as calming, distracting, or mood-lifting. These short-term effects are real. What randomized controlled trials measure is whether those effects translate into clinically meaningful, sustained improvements in the underlying condition over time, compared to a placebo control that accounts for the significant therapeutic effect of believing you have received an active treatment.

The anxiety and depression that patients report managing with cannabis tends to return between uses. The

studies that have tracked symptom trajectories over time have consistently failed to show that cannabinoid treatment produces the durable reduction in disorder severity that defines a clinically effective intervention. The experience of relief is genuine. The relief is not treating the disorder in the way that clinical effectiveness requires it to be treated.

There is also a second possibility that the Wilson review authors raised directly. “The routine use of medicinal cannabis could be doing more harm than good by worsening mental health outcomes, for example a greater risk of psychotic symptoms and developing cannabis use disorder, and delaying the use of more effective treatments,” Wilson said. People using cannabis as their primary management strategy for anxiety, depression, or PTSD may be displacing access to treatments for which clinical evidence does exist, while simultaneously exposing themselves to adverse effects that compound their underlying conditions.

What the Data Did and Did Not Find

The review’s findings were not uniformly negative across all conditions. Some limited benefits were seen for conditions like insomnia and autism, but the evidence is weak. The insomnia finding is biologically coherent: cannabis does have sedating properties, and some formulations produce measurable effects on sleep onset and duration. The autism finding involves symptom reduction in some domains, though Wilson noted that autism has no universal experience and the finding should be treated with caution.

For substance use disorders, the picture was mixed in ways that complicate the simple narrative on either side of this debate. There was some evidence of benefit for tobacco use disorder and opioid use disorder in specific trial contexts. For cannabis use disorder itself, the compound used as a treatment is the same compound driving the disorder, which creates an inherent complexity the existing evidence base has not resolved.

What the review did not find, across any formulation, dose, or patient population in the trials examined, was reliable clinical evidence supporting cannabinoids as effective treatments for anxiety, depression, or PTSD. The three conditions accounting for the majority of prescriptions and the majority of personal use decisions are the three conditions with the weakest evidentiary foundation.

The Prescription Market This Challenges

The timing of the Lancet Psychiatry publication was not incidental. Australia’s Therapeutic Goods Administration published more than 500 responses to its own medicinal cannabis regulatory review one month before the findings appeared, and Wilson stated explicitly that the study aims to help both the TGA and individual clinicians make evidence-based decisions, helping to ensure patients receive effective treatments while minimising harm from ineffective or unsafe cannabis products.

In Australia, medicinal cannabis prescriptions tripled over four years, largely for mental health indications. In Canada and the United States, cannabis markets have expanded substantially on the back of mental health use cases that the clinical evidence did not support at the time of legalization and does not support now. The regulatory systems in multiple countries approved or tolerated prescribing patterns that were outrunning the evidence base, and the Wilson review is a direct intervention into that regulatory conversation.

This puts clinicians in a difficult position. Patients who use cannabis for mental health reasons often report subjective benefit. Telling them the clinical evidence does not support their treatment can feel dismissive of a real experience. But the clinical obligation to ensure patients have access to evidence-based care means that the conversation about what cannabis does and does not do needs to become more honest than the market has had an incentive to make it.

What This Means for the Millions Already Using It

For people currently using cannabis specifically for anxiety, depression, or PTSD management, the Wilson review does not establish that they are harmed by what they are doing or that they should stop without medical guidance. What it establishes is that the evidentiary basis for that use is weaker than the cultural and

commercial framing of medicinal cannabis has suggested.

The 27 percent of American and Canadian adults who have used cannabis for medical purposes, with half of them citing mental health management, made those decisions in an environment where the implicit messaging was that the evidence supported what they were doing. The largest clinical review ever assembled on this question is now saying that messaging was not accurate for the three most common indications.

The treatments with evidence for anxiety include multiple forms of psychotherapy, several medication classes, and specific exercise protocols. The treatments with evidence for depression include therapy, antidepressant medications with known mechanisms, and lifestyle interventions. The treatments with evidence for PTSD include trauma-focused cognitive behavioral therapy and, separately, MDMA-assisted therapy in phase 3 trials. None of these are perfect. All of them have a clinical evidence base that 54 randomized controlled trials across 45 years of cannabis research failed to match.

Sources:

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