

# Psilocybin shows promise for treating eating disorders, but more controlled research is needed

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Psychedelic research has surged in recent years, sparking enthusiasm among clinicians, investors and the general public. Clinical trials are



indicating transformative outcomes for people struggling with mental illnesses like depression, post-traumatic stress disorder, and end-of-life anxiety.

Recently, the spotlight is turning to eating disorders (ED), a group of severe and difficult-to-treat conditions. A survey revealed that <u>70</u> percent of people view psychedelic medicine as a promising avenue for <u>EDs</u>, and numerous reports depict positive results.

Media platforms abound with compelling <u>personal stories</u>, from online articles to Netflix documentaries, Reddit threads, TikTok videos and YouTube clips. But the critical question remains: does the <u>scientific</u> <u>evidence</u> align with the hype?

As a doctoral student in the field of neuropsychiatry with a personal interest in EDs, I delved into the literature to assess the evidence for <u>psilocybin-assisted therapy in ED treatment</u>.

## **Long-term management of EDs**

EDs have the highest mortality rate among psychiatric disorders, and their <u>prevalence</u> is on the rise. Treatment usually involves a combination of medication and therapy, but avoidance, drop-out, and <u>resistance</u> are all too frequent. Many patients go untreated or endure symptoms for life. Overall, we lack <u>treatment options</u> that yield long-term improvements.

While the causes of EDs are diverse, patients often exhibit alterations in brain connectivity and serotonin signaling. These changes affect regions involved in body image, mood, appetite and reward, resulting in "cognitive inflexibility."

This manifests as rigid thought patterns like religious calorie counting, restrained emotions and punishing exercise regimens, among other ED



behaviors. Cognitive inflexibility may also be the culprit for treatment resistance itself.

#### **Underlying mechanisms**

It seems that standard treatments do not address the full range of mechanisms underlying EDs. Unlike conventional talk therapy led by therapists, <u>psilocybin</u> therapy uses the psychedelic experience to alter <u>brain activity</u> and foster cognitive flexibility.

Psilocybin, a naturally occurring plant alkaloid found in the Psilocybe genus of mushrooms, was first introduced to western medicine by <u>Indigenous communities</u> in the 1950s. It increases serotonin signaling while reducing the activity of brain networks linked to rigid thinking patterns. These changes are thought to enhance body image, reward processing and relax beliefs, ultimately <u>catalyzing the therapeutic</u> <u>process</u>. But does clinical evidence support this? Well, somewhat.

A <u>case study</u> described a woman with treatment-resistant anorexia nervosa who, after two doses of psilocybin, experienced immediate mood enhancement, increased insight into the root of her symptoms and long-term weight resolution.

Another study found that a single dose of psilocybin was <u>safe and</u> <u>tolerable in women with anorexia nervosa</u>, reducing their <u>body image</u> concerns.

In <u>another report</u>, an individual with body dysmorphia responded well to both fluoxetine and psilocybin treatment, but was treatment-resistant to other medications.

Theoretical evidence suggests a role for psilocybin in treating <u>binge</u> <u>eating</u>, <u>compulsive overeating</u> and <u>food addiction</u>, while also improving



symptoms of depression and trauma. However, despite these exciting prospects, numerous limitations temper the results.

#### Challenges with conducting research

The gold standard of evidence for any intervention is the <u>randomized</u> <u>controlled trial (RCT)</u>, where participants are randomly assigned to an intervention or control group, ideally without knowing which they were assigned. The idea is to reduce the impact of individual differences and expectancy bias to truly see if an intervention is effective or not.

However, for psychedelic RCTs, it can be difficult to properly blind participants—hallucinations are a bit of a dead giveaway.

Many studies feature small sample sizes lacking diversity, which limits real-world applicability. While psilocybin has a good safety profile, participants are highly vulnerable during psychedelic experiences. The experience is often ineffable and different for everyone, making the process of informed consent ethically challenging.

It is also crucial to acknowledge "excessive enthusiasm" in the field, where researchers' and participants' personal use of psychedelics may introduce bias. Among other limitations, we need to be aware of how this impacts the results portrayed in the media.

### **Patient safety**

Over-emphasizing the therapeutic actions of psilocybin or selectively presenting positive results may cause more harm than good. Due to <u>legal restrictions</u>, some patients source psilocybin illegally, without proper safety protocols or medical supervision. While this may reflect a health-care system failure, a proper mindset and environment are vital for a



safe and productive session.

The therapeutic actions of psilocybin extend beyond the psychedelic experience; integration with a therapist is key to applying the benefits. Narratives suggesting a single psilocybin experience as a cure-all are dangerous.

Lastly, we need to consider how the financial hype surrounding psilocybin could inflate costs, limiting access to the individuals who need it most.

While excitement about psilocybin-assisted therapy is justified, cautious optimism is essential. We still need to determine the optimal therapeutic framework for EDs and how this can be effectively and ethically provided at large.

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