



Psilocybin Improves Depression in People With Cancer

Most patients who used “magic mushrooms” along with psychotherapy experienced a sustained reduction in depression symptoms.

September 28, 2023 By Sukanya Charuchandra and Liz Highleyman

Psilocybin therapy along with group and individual counseling can ameliorate the severity of depression for people with cancer, according to study results published in [JAMA Oncology](#). In a commentary on the same topic in [BMJ](#), experts urged doctors to explore “magic mushrooms” as a way to ease cancer-related anxiety and distress.

“Psychedelics, specifically psilocybin, have shown promise in treating various psychological symptoms including anxiety, depression, post-traumatic stress disorder and end-of-life distress,” the commentary authors wrote.

Some 15% of people with cancer experience major depression. Poor mental health has been linked to worse outcomes, including lower treatment adherence and reduced quality of life.

With limited options available to treat depression in this population, Manish Agrawal, MD, of Sunstone Therapies in Rockville, Maryland, and colleagues sought to explore the potential benefits of psilocybin therapy.

The researchers administered psilocybin to 30 cancer patients with major depression. The participants were recruited at Aquilino Cancer Center, a community cancer center in Maryland, and through referrals from specialized psychiatric and oncology services. The average age was 56 years, and 70% were women. While 47% had curable malignancies, 53% had incurable cancer. Half the group had taken antidepressant medications in the past.

All participants were treated with a 25 milligram dose of psilocybin. Small groups of three or four patients were treated simultaneously in adjacent rooms, each attended by one therapist. They also participated in one group therapy session before taking psilocybin (preparation) and two sessions afterward (integration), supplemented by individual therapy.

All 30 patients completed therapy according to protocol. The researchers reported that 24 participants (80%) experienced a sustained response to therapy, indicated by at least a 50% reduction in the Montgomery-Asberg Depression Rating Scale (MADRS) score from baseline to

weeks 3 and 8. In addition, half achieved full remission, meaning their MADRS score fell below 10 after therapy. The mean decrease was 19.1 points. What's more, depression scores declined by about half on two different self-assessment measures, indicating a decline in the severity of depression.

Psilocybin therapy was well tolerated with no treatment-related serious adverse events and no suicidal thought. Some participants did experience mild and expected adverse events, such as headache, nausea, mood changes, anxiety and hallucinations.

"With an innovative study design of treating cohorts simultaneously, using one therapist per patient, and providing group therapy support, participants experienced clinically meaningful, rapid and sustained improvement in symptoms of depression over eight weeks following a single treatment of psilocybin therapy," wrote the researchers. "This occurred in patients with both curable and metastatic cancer."

They cautioned that the study did not include a control group, meaning participants were not compared to people receiving a placebo or antidepressant medication. Despite this limitation, their findings warrant randomized controlled trials in the future.

In the BMJ commentary, Dan Yaniv, MD, and colleagues from MD Anderson Cancer Center in Houston focused on women with gynecologic cancers, who often face an uncertain prognosis. Ovarian and other gynecologic cancers are often diagnosed at a young age, meaning patients may have the additional burden of leaving their children without a mother.

"Women with gynecologic cancers face various physical and psychological challenges throughout their treatment journey," the authors wrote. "Late stages associated with poor prognosis, along with chronic side effects of treatment, often leave women with existential uncertainty stemming from unpredictable disease trajectory and continuous fear of death."

While gold-standard cognitive behavioral therapy can be beneficial, it requires time and stamina that cancer patients may not have, they noted. In contrast, psilocybin therapy can lead to substantial improvement in just one or two sessions, which is particularly important for patients receiving end-of-life care. They added that concerns about psilocybin's potential for recreational abuse or mental illness have not materialized.

"Considering the prevalence of existential distress among ovarian and other gynecologic cancer patients and the potential benefits and safety of psychedelics, there is a clear need for more well-designed protocols prioritizing safety and exploring psilocybin, and other psychedelics, in this vulnerable population," the authors concluded.

Click here to read the study in [JAMA Oncology](#).

Click here to read the commentary in [BMJ](#).

