

The Magic of Magic Mushrooms: Psilocin and psilocybin and their effects on depression

Cannabis is slowly becoming legalized, so it makes sense that other natural drugs could follow suit. Hallucinogenic mushrooms are one of those drugs, itching to become legalized, so that they may be appreciated for their medicinal potential. They are a polarizing topic, but understanding the benefits, especially when discussing depression and other anxiety disorders, is imperative.

The Anxiety and Depression Association of America (AADA) reports that 18.1% of Americans suffer from anxiety disorders. Most cases are treated with anti-depressants, which utilize ketamine or ketamine-like drugs to diminish some or all depressive symptoms. But ketamine and similar drugs have their negatives. Ketamine can numb the senses, and people report having trouble speaking while on it. Ketamine also can become addictive and our bodies can build a tolerance to it, which means we need higher and higher doses in order for it to remain effective. And then there's the problem with finding the right dose and brand.

Prescribed anti-depressants do not always work and we often have to try different doses and brands, constantly tipping the scale of our body's chemicals to find the right balance. This process can take weeks, months or years. The problem is that we are all different, and our anxieties and depressions are different, too. But the findings in a recent Johns Hopkins study shocked researchers when they saw the effects of psilocin and psilocybin impacting different patients in consistent, positive manners.

Psilocin and *psilocybin* are the two principle chemicals in magic mushrooms, which produce hallucinogens. In the research process, those two chemicals are isolated by doctors and researchers, who micro-dose patients who have depression in order to treat the symptoms. A 2014 Johns Hopkins study focused primarily on terminally ill cancer patients suffering from depression as they dealt with their impending deaths. The results were so positive that it led to another, more recent study.

In the following Johns Hopkins study, published in November of 2020, researchers stated that: "...two doses of the psychedelic substance psilocybin, given with supportive psychotherapy, produced rapid and large reductions in depressive symptoms, with most participants showing improvement and half of study participants achieving remission through the four-week follow-up."

Tim Ferriss, who supported and funded the campaign for the most recent John Hopkins study said: "I believe this study to be a critically important proof of concept for the medical approval of psilocybin for treatment of depression [...]. How do we explain the incredible magnitude and durability of effects? Treatment research with moderate to high doses of psychedelics may uncover entirely new paradigms for understanding and improving mood and mind."

The study is the tip of the iceberg when it comes to medicinal potential for hallucinogenic mushrooms. Magic mushrooms have been known to aid in the cure and management of cluster headaches, alcohol and nicotine addiction, and even obsessive-compulsive disorder. Still, magic mushrooms — like marijuana — are classified as Schedule 1 drugs, meaning that they are considered high-risk for addiction and have no official recognized medicinal usage.

But despite the government dragging its ultra-conservative feet, scientists push forward in research to

prove the medicinal benefits of hallucinogenic mushrooms. Once there is enough research and proof, the goal is to get FDA approval to use this natural medicine. The closest anyone has come as of yet, is COMPASS Pathways receiving the FDA Breakthrough Therapy approval in 2018. Breakthrough Therapy approval from the FDA is granted if initial evidence proves that the new drug could be a large enough improvement over any current therapeutic methods. I am personally really looking forward to what happens with COMPASS' research.

So what can we expect in the future? I believe that utilizing hallucinogenic mushrooms for medicinal use will continue to be a slow, uphill battle, though it is in the realm of possibility now more than ever. I find it very uplifting to see that studies are being conducted and well-funded by reputable companies in order to move closer to this goal.