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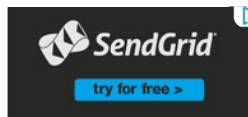
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SPIRITUALITY

'Magic Mushrooms' Can Improve Psychological Health Long Term

By Maia Szalavitz @maiasz | June 16, 2011 | 9 Comments

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The psychedelic drug in magic mushrooms may have lasting medical and spiritual benefits, according to new research from Johns Hopkins School of Medicine.

The mushroom-derived hallucinogen, called psilocybin, is known to trigger transformative spiritual states, but at high doses it can also result in "bad trips" marked by terror and panic. The trick is to get the dose just right, which the Johns Hopkins researchers report having accomplished.



Getty Images

In their study, the Hopkins scientists were able to reliably induce transcendental experiences in volunteers, which offered long-lasting psychological growth and helped people find peace in their lives — without the negative effects.

(PHOTOS: [Inside Colorado's Marijuana Industry](#))

"The important point here is that we found the sweet spot where we can optimize the positive persistent effects and avoid some of the fear and anxiety that can occur and can be quite disruptive," says lead author Roland Griffiths, professor of behavioral biology at Hopkins.

Griffiths' study involved 18 healthy adults, average age 46, who participated in five eight-hour drug sessions with either psilocybin — at varying doses — or placebo. Nearly all the volunteers were college graduates and 78% participated regularly in religious activities; all were interested in spiritual experience.

Fourteen months after participating in the study, 94% of those who received the drug said the experiment was one of the top five most meaningful experiences of their lives; 39% said it was the single most meaningful experience.

Critically, however, the participants themselves were not the only ones who saw the benefit from the insights they gained: their friends, family member and colleagues also reported that the psilocybin experience had made the participants calmer, happier and kinder.

Ultimately, Griffiths and his colleagues want to see if the same kind of psychedelic experience could help ease anxiety and fear over the long term in cancer patients or others facing death. And following up on tantalizing clues from early research on hallucinogenic drugs like LSD, mescaline and psilocybin in the 1960s (which are all now illegal), researchers are also studying whether transcendental experiences could help spur recovery from addiction and treat other psychological problems like depression and post-traumatic stress disorder.

For Griffiths' current experiment, participants were housed in a living room-like setting designed to be calm, comfortable and attractive. While under the influence, they listened to classical music on headphones, wore eyeshades and were instructed to "direct their attention inward."

Each participant was accompanied by two other research-team members: a "monitor" and an "assistant monitor," who both had previous experience with people on psychedelic drugs and were empathetic and supportive. Before the drug sessions, the volunteers became acquainted enough with their team so that they felt familiar and safe.

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Although the experiments took place in the Hopkins hospital complex in order to ensure prompt medical attention in the event that it was needed, it never was.

As described by early advocates of the use of psychedelics — from ancient shamans to Timothy Leary and the Grateful Dead — the psilocybin experience typically involves a sense of oneness with the universe and with others, a feeling of transcending time, space and other limitations, coupled with a sense of holiness and sacredness. Overwhelmingly, these experiences are difficult to put into words, but many of Griffiths' participants said they were left with the sense that they understood themselves and others better and therefore had greater compassion and patience.

(MORE: [A Mystery Partly Solved: How the 'Club Drug' Ketamine Lifts Depression So Quickly](#))

"I feel that I relate better in my marriage. There is more empathy — a greater understanding of people and understanding their difficulties and less judgment," said one participant. "Less judging of myself, too."

Another said: "I have better interaction with close friends and family and with acquaintances and strangers. ... My alcohol use has diminished dramatically."

To zero in on the "sweet spot" of dosing, Griffiths started half the volunteers on a low dose and gradually increased their doses over time (with placebo sessions randomly interspersed); the other half started on a high dose and worked their way down.

Those who started on a low dose found that their experiences tended to get better as the dose increased, probably because they learned what to expect and how to handle it. But people who started with high doses were more likely to experience anxiety and fear (though these feeling didn't last long and sometimes resolved into euphoria or a sense of transcendence).

"If we back the dose down a little, we have just as much of the same positive effects. The properties of the mystical experience remain the same, but there's a fivefold drop in anxiety and fearfulness," Griffiths says.

Some past experiments with psychedelics in the '60s used initial high doses of the drugs — the "blast people away with a high dose" model, says Griffiths — to try to treat addiction. "Some of the early work in addictions was done with the idea of, 'O.K., let's model the 'bottoming-out' crisis and make use of the dark side of [psychedelic] compounds. That didn't work," Griffiths says.

It may even have backfired: other research on addictions shows that coercion, humiliation and other attempts to produce a sense of "powerlessness," tend to increase relapse and treatment dropout, not recovery. (And the notorious naked LSD encounter sessions conducted with [psychopaths](#) made them worse, too.)

Griffiths is currently seeking patients with terminal cancer to participate in his next set of experiments (for more information on these studies, click [here](#)); because psychedelics often produce a feeling of going beyond life and death, they are thought to be especially likely to help those facing the end of life. Griffiths is also studying whether psilocybin can help smokers quit.

Griffiths and other researchers like him are hoping to bring the study of psychedelics into the future. They want to build on the promise that some of the early research showed, while avoiding the bad rep and exaggerated claims — for example, that LSD was harmless and could usher in world peace — that became associated with the drugs when people started using them recreationally in the 1960s. The resulting negative publicity helped shut down the burgeoning research.

This time around, caution may be paying off. Dr. Jerome Jaffe, America's first drug czar, who was not involved with the research, said in a statement, "The Hopkins psilocybin studies clearly demonstrate that this route to the mystical is not to be walked alone. But they have also demonstrated significant and lasting benefits. That raises two questions: could psilocybin-occasioned experiences prove therapeutically useful, for example in dealing with the psychological distress experienced by some terminal patients?"

"And should properly-informed citizens, not in distress, be allowed to receive psilocybin for its possible spiritual benefits, as we now allow them to pursue other possibly risky activities such as cosmetic surgery and mountain-climbing?"

The study was published in the journal *Psychopharmacology*.



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Maia Szalavitz is a neuroscience journalist for TIME.com and co-author of *Born for Love: Why Empathy Is Essential — and Endangered*.

Szalavitz's latest book is *Born for Love: Why Empathy Is Essential — and Endangered*. It is co-written with Dr. Bruce Perry, a leading expert in the neuroscience of child trauma and recovery.

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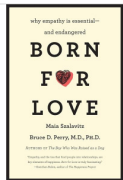
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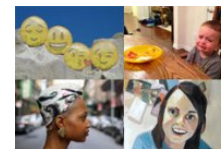
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