What mushrooms can do for N.J.: A Q&A with a psilocybin expert

By Star-Ledger Editorial Board

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New Jersey just launched its recreational marijuana industry three months ago, and now its architect is proposing that the state legalize psilocybin, the hallucinogenic compound found in magic mushrooms. The bill drafted by Sen. Nick Scutari allows anyone over 21 to use the psychedelic drug and to grow it at home – no prescription necessary -- on the premise that it carries therapeutic benefits for a broad list of maladies, including chronic depression, PTSD, substance abuse, and end-of-life stress.

The FDA concurs: It granted psilocybin "breakthrough therapy" status for treating depression in 2018, supporting dozens of research institutions across the globe – from UCLA to Imperial College in London – who are captivated by its potential as a miracle from nature.

To better understand these potential benefits, we spoke with Dr. Sunil Aggarwal, who co-founded the Advanced Integrative Medical Science (AIMS) Institute in Seattle and teaches at the University of Washington School of Medicine. This conversation with Dave D'Alessandro, deputy editorial page editor, was edited for content.

Q. How long have you studied psilocybin in clinical settings?

A. My first exposure was when I participated in a research group at NYU in 2012, during my residency. I helped recruit cancer patients for that study, and I've taken coursework with the study leads. But I'm not permitted to prescribe psilocybin – it's been a Schedule 1 drug since 1971 – so I can only counsel patients about their own self-directed use of psilocybin. I have asked the DEA for permission to use it as a therapeutic under something called the Right to Try Law, which permits experimental treatments for terminally ill patients. They have so far denied it, so I brought a suit against the DEA with support from the ACLU, the CATO Institute, nearly a dozen state attorneys general, and others.

Q. Who would you prescribe it to?

A. It's a pretty wide range. It's been given to patients with trauma, addiction, depression, life-threatening illnesses, PTSD. But I've also seen it used for spiritual growth; I've had patients who are aging, with medical issues, who want to recalibrate their purposes in life. That comes up fairly regularly.

Q. So how does psilocybin work?

A. Essentially, it enters your brain through the bloodstream and acts on a number of areas – notably the neurons, the cells responsible for sensory input – and disrupts what is known as the default mode network. Basically, it interrupts the way neurons are talking to each other. (Science author) Michael Pollan describes it as "shaking a snow globe." The pieces don't settle the same way as before: If those connections were reduced by stress or depression, this disruption creates new pathways for neurons to connect. The result is often described as a mystical state, with extreme feelings of bliss or euphoria, and those things actually have the therapeutic value.

Sometimes there is also fear and sadness, but more often it makes people feel more connected and alive. That is a profound experience for a Stage 4 cancer patient with a few months to live – a sense that there's something more to the world other than this physical existence, perhaps a connection to something bigger than themselves, even a spiritual insight. And it often relieves the anxiety and depression that comes with the illness.

Q. With your background in hospice and palliative care, you must find it especially beneficial in terminal cases.

A. Yes. The thing is, there are no treatments in palliative care and hospice for the emotional and spiritual distress associated with terminal illness. There are some people with a terminal illness who are at peace, without worries or distress, but those cases are rare. So, psilocybin could potentially alleviate a lot of the difficulties most patients experience, namely the secondary symptoms associated with anxiety or dread – a depressed mood, isolation, a limitation of ability to connect with loved ones. For those things, it would be a game-changer.

There are volumes of research that supports that, but just as a clinician, I can tell you that we don't do a good job in that area. We do the best we can with chaplains and nurses and social workers – who are great, don't get me wrong – but sometimes that's just not enough. You need something stronger.

Q. Is relief from physical pain a part of the therapeutic benefits?

A. Yes. Sometimes it's described as being 'a little less in your body,' an ability to distance yourself from the pain. The earliest studies from the 60s established that. But that's not really the main mechanism here, it is only a part of it. There is a detachment: Pain is less prominent because you don't feed it with anxiety. Pain and anxiety usually feed each other.

Q. Public acceptance of new drugs is always slow, and "magic mushrooms" seem especially stigmatized. But what is the general attitude from the medical community?

A. Well, there are dozens of major academic medical centers in the United States – and more around the world – who have invested many millions in research. Basically, if you're going to put up a shingle on this, you want to be public about it. That's not stigma, that's a serious curiosity and focused study. In a different area of medicine – say, pediatric addiction medicine, or pediatric psychiatry -- there might be a skepticism and concern.

Drugs must go through the clinical trial process, which has three phases. Psilocybin has already passed Phase 1, which means you have demonstrated that they are safe. We have a federal law that says that those substances are legal to be used in patients with life-threatening illness if their doctors feel it would be beneficial. That's the Right to Try law I mentioned earlier.

Q. Every synopsis I've seen emphasizes that mushrooms are not addictive, but it's generally agreed that doing them without supervision is reckless, and that people with serious illnesses such as schizophrenia are never used in studies. What else do we need to know about precautions?

A. A controlled, supportive environment is critical – a good therapeutic "container," we call it, where the patient is well-prepared, well-screened, and well supported in the aftermath. Human beings have been using these substances since before recorded history, and they're still using them, but if we had some policy initiatives, we would be able to help more people and create a safe container for all.

Q. If New Jersey passes a legalization law, what would it look like? Would we need an infrastructure, such as a network of clinics?

A. I currently sit on our state's Psilocybin Work Group with public health experts and government officials from around Washington State, and we're charged with studying Oregon's rollout and making recommendations for when our law is ready to go. And I think most of us really don't want to just have service centers for psilocybin. We want to think about home use, about micro-dosing if we can, and other access options.

Because clinical-only is expensive. There are times where you'd want medical or mental-health professionals in the room, but I don't think that's necessarily true for all. If you have a psychiatric issue, you need specialists. But if (supervision) is restricted to people with licenses -- doctors and psychotherapists – it becomes very expensive. Generally, none of their fees would be covered by your insurance company, and it would be cost-prohibitive: You're not just sitting with them for 30 minutes, you're sitting with them for 5-6 hours. That's one of the concerns that they're seeing Oregon now.