



The State of PSYCHEDELICS

Could these mind-altering substances be the cure for the mental health crisis? We unpack the science, the path to acceptance, and the stunning potential.

BY LIZ BRODY

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It's been more than two decades since Lynn Smith McKay's brain showed up on *The Oprah Winfrey Show* full of holes. At least it looked that way on a 3D scan.

Back then, there was a growing concern over ecstasy's popularity as a party drug, and McKay appeared on the September 27, 2001, episode to share her personal ordeal. The "holes" were reportedly spots of abnormal brain cell activity caused by her four-year lovefest on mind-altering drugs. Whatever one wanted to say about the scan—and they said a lot—the visual took hold, particularly irking the small world of researchers starting to study the therapeutic use of ecstasy, or MDMA, as a breakthrough mental health treatment. They're still talking about McKay, claiming the scan was manipulated or maybe she was a government plant spreading drug-scare propaganda, the old clip of her at age 24 occasionally resurfacing in the media. "I'm public enemy number one," McKay says when I reach her at home outside Austin, "and it's so weird because, until now, no one has contacted me."

A lot has changed in those 22 years. The slow drip of psychedelics into the mainstream as promising medicines has grown into a full pour. MDMA could get FDA-approved as early as August as a highly anticipated treatment for PTSD. "I was a young girl, broken, wounded, and in a lot of pain, who did a lot of drugs," says McKay, now healthy and sober, an author, and a mother of two. She'd landed in New York City at age 19, fresh off the turnip truck from a tiny Pennsylvania farm town, to become an actor. Instead, she was swept up in the scene and landed in a psych ward. "I couldn't even string a sentence together, let alone become a government plant. I almost died. It's apples to oranges compared to what's happening today with psychedelics in a controlled therapeutic setting."

THE TRIPPING POINT

Hallucinogenic medicines may be a legit healthcare category in five or 10 years. But like crypto and AI, they're already here, and we're figuring out their promise and their dangers on the fly. For anyone just catching up, you can find recs for ibogaine retreats on Goop, ayahuasca advocacy on the presidential campaign trail, clinics draped in silk flowers and trippy wallpaper offering ketamine-assisted therapy—and even companies like Dr. Bronner's covering said therapy through a psychedelics benefits startup called Enthea. Most of these drugs, with the exception of ketamine, are federally illegal, but that barrier is fraying like old denim against the friction of new science and state laws allowing supervised use. If you're in Oregon, for example, you can do a session of shrooms or their main active ingredient, psilocybin, with a facilitator at a service center; Colorado is building its own regulated system of dedicated healing places; and several other states are considering similar legislation this year.

Meanwhile, underground therapists and guides who will take you on a medicine journey are fixtures in many more people's phone contacts than you might think. "I've watched it change at lightning speed in the past five years. This was a very taboo topic, and now you have celebrities happy to talk about it publicly," says Michael Pollan, whose 2018 bestseller *How to Change Your Mind* and subsequent Netflix documentary did more than just about anything to usher psychedelics into the new normal. "Now we're trying to throw a little cold water on the fire of excitement because people will be disappointed if you hype this. And there are real problems and real questions."

Those questions include: What happened with that off-duty pilot who nearly brought down a plane because he said he'd been on mushrooms? (We'll get to that.) And actor Matthew Perry, who was getting ketamine-assisted therapy from a doctor but was killed by the massive dose he got elsewhere, according to the autopsy report? That's the kind of news that makes many ask: Will the acceptance of psychedelics as medical treatments enable some people to legitimize their drug abuse? Can psychedelics' power to heal have a hidden dark side? "There is a soft underbelly of psychedelic therapy," says Robin Carhart-Harris, PhD, professor of neurology at University of California, San Francisco, and founder of the Centre for Psychedelic Research at Imperial College London. "You've really got to get that context right to get a good outcome."

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But when you have a mindset, setting, and expert support that are open to personal growth and recovery, the stories are nothing short of stunning. In interviews with more than 20 people who've done psychedelics with a therapist or guide, they told of the drugs' wicking away crippling PTSD, dissolving lifelong depression, helping cure anorexia and bulimia, and, in a single dose, ending a nine-year nightmare of hallucinogen abuse. Unlike other mental health drugs you have to take daily, these hallucinogenic substances work by giving you access to your body's own capacity to heal itself, providing a window of neuroplasticity that lets you view things in new ways and without self-judgment. Imagine your brain is like a compressed computer zip file, suggests Carhart-Harris. Psychedelics open it, revealing reams of content in all this granularity from your knowledge and experience that's normally stored away, out of your awareness. After a session, a therapist or guide helps you integrate what came up, and ideally, you infuse the new thinking with other ways you're working on yourself.

Researchers at universities like Johns Hopkins, NYU, and Stanford are also witnessing transformations, and publishing studies showing that a few sessions of combining psychedelics with therapy can cull agony and illness that conventional pharmaceuticals can't get at. "The results are impressive, and the safety profile looks very good," says neuroscientist and psychiatrist Thomas Insel, MD—and if anyone can objectively assess a pile of trial data, it's him. Insel led the National Institute of Mental Health for 13 years. He's also quick to warn that this research is in the honeymoon phase and we won't know fully about either safety or efficacy until the wider population has access. "We've seen over and over again a voltage drop when you go from early clinical trials, where you have selected patients very carefully, to what happens in real life," he says, mentioning the antidepressants SSRIs as an example. "There have been a lot of magic bullets in psychiatry. And they almost all lose their magic over time."

Even so, Insel has found the findings compelling. "The idea that all of a sudden, wow, instead of having to take a pill every day, a single dose of psilocybin or MDMA could have this profound effect on a chronic illness—it's pretty cool," he says.

HEALING VETERANS

Juliana Mercer never meant to go to war. But after 16 years in the Marines, with deployments to Iraq and Afghanistan, layers of trauma led her to become the new face of psychedelics. Instead of tie-dye shirts and caftans, many advocates leading the movement today are used to military uniforms.

It's an odd twist that involves some backstory. Plant-based psychedelics have been used by indigenous cultures for millennia. But the modern era of research started around 80 years ago, after Swiss chemist Albert Hofmann discovered that the LSD he'd synthesized from a fungus called ergot was hallucinogenic. The 1950s and '60s were a hotbed of psychedelic research—thousands of studies were done on LSD, and the mental health world was jazzed about psychedelics' potential for treating mood disorders and addiction. But the counterculture discovered them, too, leading President Nixon to clamp down with his "war on drugs." In 1970, the Controlled Substances Act put the nail in the coffin, banning pretty much all psychedelics. (MDMA followed in 1985.) It took three decades for scientists at Johns Hopkins to pull the research out of its coma.

That was in the early 2000s, around the time Lynn Smith McKay went on *Oprah*, and the new wave of researchers has been careful to course-correct. They back-burnered studying acid because of all its social scars—no one talks about LSD. And longtime psychedelics advocate Rick Doblin, PhD, got his public policy doctorate at Harvard Kennedy School to help make MDMA accessible as an FDA-approved treatment for PTSD in veterans (forget his having been an ardent draft resister during the war in Vietnam).

"MDMA is the most gentle of all the psychedelics. It opens the heart," says Doblin, who started the Multidisciplinary Association for Psychedelic Studies (MAPS) in 1986 as a nonprofit to fund research and education. "That's why I felt it would make it through the system first." And studies were showing it to be safe. While people who take it the way McKay did might have trouble with memory, verbal learning, or depression, those problems typically go away over time, says David Nutt, professor of neuropsychopharmacology at Imperial College London and author of the new book *Psychedelics*. But used in a controlled therapeutic setting, MDMA doesn't appear to damage the brain. PTSD, on the other hand, does. By 2021, some 7,000 troops had been lost in the Global War on Terrorism following 9/11, but more than four times that number—over 30,000—had killed themselves, according to one analysis. "It's veterans that commit suicide," he says. "It's veterans that could get us the bipartisan support. It's veterans that we hold on a pedestal."

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—results from a 2023 MAPS study.

By 2021, Mercer was coming to her own conclusion. She'd grown up in Tijuana, Mexico, and San Diego, and signed up for the Marines only because she was bored one day in a strip mall and wandered into the recruitment office. She graduated from boot camp 18 days before 9/11 changed the world. Mercer later deployed to Iraq, where she served as a liaison to civilian authorities and residents, and returned to the States to work with the wounded.

There, amid the daily influx of catastrophic injuries, one sergeant broke her. He had lost both legs above the knee, and when she asked him what else he might have a passion to pursue now, he told her the only thing he could think of was going back to Afghanistan. All he'd ever wanted to do was be a Marine. "I told him I'd go for him," she recalls. "And 2010 was a very bloody year. I lost track of how many I'd go for him," she recalls. "I saluted."

Mercer left the Marines on October 31, 2016, and stumbled slowly toward crisis. She continued working with veterans, who were killing themselves with alarming regularity; female suicides were on the rise, too. As her own purpose drained out of her, Mercer came to a realization. "I was comparing myself to the Marines who were in constant combat, losing limbs, like, *Okay, well, I didn't do that. So I should be fine*," she says. "And I dated other military folks who had PTSD, and there was violence and abuse." By the end of 2019, she realized how burned-out she was. On top of that, she was laid off from her job.

Through a veterans group, she did a psilocybin session. By the end, the entire floor was covered with tissues soaked with 20 years of trapped trauma and grief. "I looked in the mirror and saw a woman I didn't recognize," she says. "One full of joy. And I started laughing, like, *Oh my God; what just happened?*" Driven to share that kind of experience with others like her, she landed as director of public policy at the nonprofit Healing Breakthrough, which is putting its muscle behind making MDMA-assisted therapy accessible to veterans with PTSD.

Last November, Mercer, now 42, testified in front of the House Committee on Veterans' Affairs armed with the findings from the latest research funded by MAPS, which is now being reviewed by the FDA. After three sessions of MDMA and supporting therapy, the study showed, 71.2 percent of subjects with PTSD no longer met the criteria for the diagnosis, while 86.5 percent saw a significant reduction of symptoms (compared with 47.6 percent and 69 percent, respectively, in the control group who got just therapy). Since her appearance, President Biden has signed an act granting \$10 million for the Pentagon to study the use of psychedelics for PTSD or TBIs (traumatic brain injuries), and the VA announced that it will independently fund research on both MDMA and psilocybin. These commitments are "more than a historic event for those like me who recognize their lifesaving potential," says Mercer. "Most of the veterans I work with, they've tried everything. Nothing eliminates the PTSD. And they'll have one or two sessions with psychedelics and get relief like they've never experienced. I think of MDMA as just the tip of the spear."

BREAKING MENTAL RUTS

"I need a drink," a woman told the therapist as she came out of her first psilocybin session at Bellevue Hospital. It was not a vote of confidence. Brenda Ghan-tous was one of 93 subjects in an NYU study aiming to see if the "magic" in mushrooms could help people quit alcohol.

In nearly 30 years of researching addiction, Michael Bogenschutz, MD, director of the NYU Langone Center for Psychedelic Medicine and leader of the study, has always been fascinated by religious conversions and alcohol abusers who snap into sobriety one day and never drink again. "But sudden change is very unpredictable," he says. After seeing the first studies on psilocybin—a so-called classic psychedelic like LSD—by the late Johns Hopkins neuroscientist Roland Griffiths, Bogenschutz wondered if this was a drug that could spark the radical transformations.

The results, published in *JAMA Psychiatry* in 2022, seemed to bear out his theory. The subjects each got two sessions a month apart with either psilocybin or a placebo (an antihistamine) and 12 psychotherapy sessions—including one before and after each journey to prepare and then integrate the experience. (Most psychedelic studies follow a version of this protocol.) Nearly half of those who took psilocybin—48 percent—were abstinent eight months later, double the number in the placebo group. One of them, Jon Kostas, a hard-core binge drinker in his 20s, had a vision of a liquor bottle emerging in the middle of the desert that suddenly disintegrated into the sand. "I thought that was so corny and clichéd, I was embarrassed to tell the doctors," he says. But in eight years since that vision, he's never touched—or even craved—booze or psychedelics, he says.

Ghan-tous, who was 60 years old and a massage therapist at the time, cut down her drinking, as many others who had taken the psilocybin did. Overall, the effect of psilocybin shown in the study was about three times that of naltrexone, a commonly prescribed drug for alcohol use disorder. But the psychedelic medicine brought to light something more important for Ghan-tous: her depression, which she realized was the root cause of her alcohol dependence. When she joined the study in 2018, she says, she felt weary from walking around "with glass in my veins 24 hours a day," something antidepressants had never helped much but wine at least dulled. One jagged memory was from age 5. "My father is asleep on the couch; I don't know where my mother is. My baby brother is crying and it's dark and I can't reach the light," she says. "I realize these people are F-minus and I'm going to have to step up and take care of my siblings. I thought we were gonna die."



During her second session, “I realized my depression was a friend that had kept me safe in a very chaotic, terrifying home,” she says. “But it’s a tool I no longer need. Instead of hating or fearing it, I thanked it for protecting me. And I swear on my grandchildren, after that dose of psilocybin, my depression never came back.”

Bogenschutz points out that mood disorders and addiction often go hand in hand. But psychedelics could be a major breakthrough for depression on its own. Conventional drugs like SSRIs take weeks to kick in, and in that time, says neuroscientist Nolan Williams, MD, an associate professor at Stanford University, “somebody who’s really depressed can lose a job, separate from their significant other, even end their life.” Ketamine works within hours (a nasal spray derivative called Spravato has been FDA-approved for depression and is being used at certified treatment centers). Psilocybin is also showing promise in research coming from Johns Hopkins, Yale, and Imperial College London’s Centre for Psychedelic Research. In the first study that compared it to an antidepressant, there wasn’t an overall difference in effect, but psilocybin with psychological support did double the remission rate compared to the SSRI, “getting people so well that they don’t have depression anymore,” says Carhart-Harris, one of the investigators. From what he’s seen, patients often start relapsing at around the three- to six-month point, particularly those with chronic treatment-resistant depression, and he thinks of psilocybin as a drug to be used as needed. “This isn’t a silver bullet that will cure things forever. That can happen. But you shouldn’t expect it for everyone.”

As for the former pilot who reportedly tried to shut down the engines of an airborne Alaska Airlines flight, Joseph Emerson: From what he told *The New York Times*, he did mushrooms with friends two days before the episode, and in the cockpit, he thought he was dreaming and wanted to end it. Again, context can be everything. Frederick Barrett, PhD, director of the Center for Psychedelic and Consciousness Research at Johns Hopkins, which has done landmark research on psilocybin, says Emerson’s experience sounds like prolonged derealization (where you feel detached from your surroundings and may think you’re in a dream), “a very rare but potentially real risk of ingesting a psychedelic drug. It’s not something that we’ve encountered at Hopkins with any of our carefully screened, monitored individuals, but if any of them had, we’d be there to help them.”

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In fact, their studies at Johns Hopkins are making a good case for its use therapeutically as a treatment not only for depression but also to help people quit smoking and find peace when facing terminal illness. The psychedelic may even help unlock anorexia nervosa, one of the most impenetrable and often fatal mental health conditions. Carhart-Harris and his team are getting ready to publish “unusually good findings,” as he puts it, on dangerously underweight patients in their 30s, when the illness “is really stamped in,” who had 60 percent remission three months after psilocybin and therapy sessions.

Why would psychedelics help such disparate conditions? Experts say they all share being stuck in a certain kind of thinking: A depressed person has a disagreement and spirals into rumination; a car backfires and a veteran panics; it’s dinnertime and an anorexia patient is flooded with feelings of being a fat slob. It pushes the mind into its mental ruts the same way rainwater follows channels to the bottom of a hill or, perhaps more aptly, bathwater circles a drain.

One idea is that psychedelics create an “entropic effect,” where the brain networks become less organized and the neuro-landscape gets leveled so you can start with a clean slate and make new paths. Barrett believes the key is a tiny brain structure called the claustrum that’s saturated in the serotonin 2A receptors, which classic psychedelics target. The claustrum connects to many areas, like your attention, emotional response, and executive function, and conducts them like a symphony. Psychedelics may shut it down temporarily, pushing the brain into extreme flexibility, according to a model Barrett’s recent work proposes. Like jacking the heat way too high on an old thermostat in order to get the room to the right temperature, the psychedelic recalibrates the brain into a more balanced, less rigid state.

Carhart-Harris, who has observed the entropic effect by putting sensors and an EEG cap on the scalps of people while they are tripping, has seen a dramatic change in brain wave activity. “Entropy is like heat,” he says, looking away. “I pause a little bit there because of all the propaganda with a frying pan and ‘This is your brain on drugs.’ But maybe instead of an egg being fried, you could think of it like smelting gold, you know?” He laughs. “But that’s propaganda, too.”

ANSWERS FOR THE CURIOUS

Right now, to try psilocybin or MDMA with therapy legally, you could join a research trial. (Check out clinicaltrials.gov or Apollo Pact, which Jon Kostas started after the NYU study.) As for ketamine, its approval as an anesthetic means doctors can prescribe it off-label at lower doses for whatever they want. Because it works differently on the brain than the other psychedelics, some researchers don’t consider it the real deal; it also has the potential for abuse. But given in controlled therapeutic settings, it has proven effective for depression, anxiety, and chronic PTSD.

Could you get in hot water if you go to an underground guide or therapist? “It’s probably not the highest priority of law enforcement in many places, but it is a significant risk,” says Mason Marks, MD, senior fellow and project lead at the Project on Psychedelics Law and Regulation at Harvard Law School. Until the national bans on psychedelics are lifted, even in places that have decriminalized or legally regulated the drugs, we’re not on terra firma. “The federal government always has discretion to go into a state and start arresting people. It hasn’t happened in Oregon,” Marks says. “That doesn’t mean that it won’t.”

None of this was on Sherry Glassman’s radar on January 22, 2015, as she stepped into a crosswalk with her mom. They’d just left the hospital in Portland, Oregon, where her father had survived a massive heart attack, high on the tailwinds of relief. Above there was a new moon. Or maybe not? That detail was just making its way into Glassman’s brain when something hard slammed into her.

From the ground she saw it: a Ford SUV that had turned right on a red, dragging her mother in the rear wheel well. “Somehow I got back to my feet and ran after the car, pounding on it, yelling, ‘Stop!’” The driver finally did. Glassman bent down where blood from her mother’s head was running into the asphalt cracks, and took her hand. Her mother grabbed two fingers and squeezed them three times, as if to say, *It’ll be okay*. But she died on the way to the hospital. “Her neck,” recalls Glassman, her voice collapsing, “was black. One eye was open; one eye was closed. The carrots we ate for dinner were coming out of her throat. I didn’t realize until later that her leg was going the wrong way.”

\$10 million
Funding granted by President Biden
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Glassman, then a senior judicial staff attorney at the Supreme Court of California, walked away with minor injuries, but her mind was stuck on that crosswalk. She was diagnosed with PTSD, and the trauma piled on as the stress killed her father, her wife left, and her insurance company refused to pay any benefits under her umbrella policy. She tried every treatment she could find as the trauma sheared away her passion for the violin, photography, and the law. At several points, she was hospitalized. “The flashbacks wear you down,” she says, “because all of a sudden, there you are reliving the trauma. Every detail intact. You know how it ends, but the scene and horror are repeated over and over again.” It was a nosy Uber driver with endless questions (“What do you do? Why aren’t you working?”) She told him about her mother to shut him up) who put his arm around the back of the seat and suggested psychedelic medicine.

After a little research, she found herself lying back in eye shades, warmed by a blanket and an intramuscular shot of ketamine at the hands of a man she came to call the Wizard. That would be Phil Wolfson, MD, co-editor of *The Ketamine Papers*, known for his pioneering work with the medicine. “She was severely traumatized. And on multiple medications, including benzos and antidepressants, which were ineffective,” he says of the woman who walked into his office that day in 2016. “But ketamine tunes us in to the visual stream that we have going in our brain constantly that we usually don’t see, and 85 percent of the people improve significantly.”

Glassman was among them. Over a dozen ketamine treatments, Wolfson says, “the depression would improve a bit, and then an event would occur that would set her back. But she ultimately made much of a recovery.” In one session, she saw herself pedaling an old penny-farthing bicycle—the kind with a gigging front wheel and a tiny back one. On the right was a cantilever holding her mother like an outrigger on a boat; her figure was tortured and crooked as it was after the accident. “I knew I had to fix her,” Glassman remembers. “Ahead of me was Eli, my dog, playing the trumpet, and as he bent the notes, they turned into strands of daisies and roses floating backward. I reached for them and draped them around my mother. Soon, she was whole again. I could finally see her as she was before the accident. Smiling into the wind, her head tilting back in laughter.”

In another journey—this one on MDMA with another therapist—Glassman was traveling down a river, both shores lined with billboards showing the latest gruesome images of her mother. But Glassman realized the signs could swivel, and as she flipped each one, the other side was blank. She had a choice to start over. “Psychedelics saved me from suicide. They gave me an aerial view to find the magic again,” she says now. “I do still get triggered. But I’m able to call up the lessons from being on them so I don’t have to go down that hole.”

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It’s stories like these that feed into the exuberance about psychedelics, but Barrett, at Johns Hopkins, stresses, “We’re not there yet. We still have a lot to do. And we should be careful not to jump the gun.” How to handle sexual misconduct, for example, is an issue. Under the influence of mind-altering drugs (and especially MDMA—as one woman told me, “I fell in love with my telephone”), you’re hardly able to assess if your healer is crossing sexual boundaries, much less consent if they are. As one case that splashed all over the news makes clear, it can happen even in a clinical trial. (It was a MAPS study in which a subject alleged in a civil suit that one of her therapy providers sexually assaulted her. The provider admitted they’d had sex during the follow-up part of the study but claimed it was consensual. A video of one of the sessions led to more questions. The civil suit was settled out of court.) “The situation happened one time,” said Doblin when I asked him about it. “I think we’ve treated over 500 people with MDMA, so—” He stopped himself. “One time is too many.” MAPS barred the provider and added a code of ethics to its training, but right now there are no systems of accountability, even in a therapeutic setting, which harm reductionist Erica Siegal points out is currently not defined. “Do you mean a clinical trial? An underground therapist?” she asks. Siegal recently launched Shine Collective to help survivors of psychedelic harm, including sexual assault and psychological abuse.

Aside from ethical considerations, a looming question is: Who should support the treatments? Need they be therapists? Have medical degrees? What background is necessary? Where do they get training? And if context is so important, what is the best setting for these sessions—a spa-like suite with low lighting and carefully curated music? Or does a sterile clinic work just as well? “No one’s ever tested it,” says Carhart-Harris. Nor do we know the optimal number of sessions and therapy protocol for each treatment, or how often patients should continue to do psychedelics afterward. Is there a “too much” point? And what if you want to do psychedelics solely for personal or spiritual growth? “To my mind,” says Michael Pollan, “that’s just as significant. Like religion and meditation, they can give people a renewed sense of meaning. And God knows we’re hungry for that.”

One day in January, I toss around these questions with Lynn Smith McKay and mention what I’ve learned. “I totally understand when you tell me about the woman who watched her mom get killed, or PTSD from a vet—you hear these breakthrough therapies helping and, of course, you’re like, *Awesomes, great*,” she says, adding that several of her friends are doing medicine journeys. “I get it. The first time I did ecstasy, I felt a peace I hadn’t known was possible in all of my 19 years. And probably at that moment, if I’d had a therapist or someone to walk me through it, that might have been the most amazing thing.”

We talk a bit more—about the years she spent sharing her experience with at-risk kids in hopes of saving them from living it, and how she still worries about that. And about still living under suspicion of being an anti-drug operative. Then we both look at the time. “All right,” she says, with the barest hint of a smile. “I have to go back to my government plant job.”

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