

Turning To Mushrooms An expanding frontier of psychedelic treatment is gaining traction thanks to a groundbreaking research study—and women desperate for effective solutions. By Clare Wiley Photographs by **Brendan James**

Why New Moms Are

few days before Nohea gave birth to her second baby, in 2016, the now 40-yearold from Texas had a strong sense of foreboding. She'd struggled through severe postpartum depression (PPD) with her first child and felt palpable dread when she realized it was also happening with her second. "I had enough awareness to know that I

couldn't do this again—not to my partner, my son, or myself." She tried talk therapy, but it didn't help her properly process her emotions. "I felt like my body was in a constant state of vibration, like pins and needles: irritating, painful. I felt so much guilt and shame, like I should be enjoying this." She didn't want to take prescription medications, and that's when her sister, a military veteran, made a surprising suggestion: to try psychedelic mushrooms, or psilocybin—the active compound in magic mushrooms.

The fungi, which have long been used by Indigenous cultures in religious and healing ceremonies, can affect perceptions of reality and potentially even alter your sense of self, time, and space. You might hallucinate or see enhanced shapes, textures, and colors. Often, people report feeling euphoria or bliss. Yet while some trips are incredible and rapturous, others can be frightening and intense, or evoke both sets of emotions.

When her son was 8 months old, Nohea sat in a rocking chair with him one evening and drank tea made from 3.5 grams of mushrooms. Her husband had the baby monitor in the next room, in case she needed help. "I was calm and felt very curious and receptive. I went into it with the intention of connecting with my baby," she says. As the psilocybin took effect, Nohea felt weightless, as if she were floating. She began to see images when she closed her eyes, including an octopus that seemed to have her baby's eyes. She remembers asking her son to show her what he needed. It felt as if he were taking her "on an

adventure into the sea," she says, "showing me smells, colors, and images of things that made him

feel safe and happy."

Despite a boom in research into psychedelics in recent years, with studies showing real potential for psilocybin in treating severe depression, PTSD, and substance-use disorders, the postpartum period has largely been neglected. New moms are considered particularly tricky subjects—they might pass along substances to their babies through breast milk, and their hormonal shifts during this postpartum period make controlled studies difficult, as those shifts could affect the results. These concerns are understandably heightened when you're dealing with a psychedelic drug, which could impact a mom's serotonin levels and potentially harm a newborn's neurodevelopment.

But now, Reunion Neuroscience, a New Jersey-based company, is sponsoring the first-ever U.S.-

based study on psychedelic treatment for postpartum depression. Prior "data" about psilocybin's

can help after existing solutions failed them. This study will use a synthesized psychedelic called

RE104 that is very similar to psilocybin but with faster, shorter hallucinogenic effects (psilocybin

trips can last up to six hours; RE104 lasts less than four hours). The randomized controlled trial

efficacy in treating PPD has been purely anecdotal—women desperately seeking anything that

will have 72 participants at 35 sites across the U.S.—and require that the women not be currently breastfeeding. Results are expected in the second half of 2025. If it is successful, it will hopefully lead to larger trials in the future. It'll likely be years before this promising treatment becomes commercially available. In the meantime, postpartum women like Nohea are taking matters into their own hands and trying mushrooms at home. The online community Moms on Mushrooms, which has around 4,000 members, offers advice on taking mushrooms. Last year, a group called Mothers of the Mushroom surveyed 411 mothers about why they take psilocybin. Relief from anxiety and depression were two of the main reasons. Many women also said they felt a greater sense of calm, an uplifted mood, reduced stress, and enhanced emotional resilience. Connection, emotional bonding, and feeling in sync with their children were the primary reported benefits, setting it apart from other treatment

options. **Better Alternatives for Struggling Moms** For the one in seven women who struggle with perinatal mood and anxiety disorders (PMADs), including postpartum depression, the symptoms range from persistent sadness to worry. irritability, and a feeling of being overwhelmed. Some might feel wired instead of lethargic and experience more intense mood swings. "They're worrying all the time and have intrusive thoughts or disturbing images," says Katie Unverferth, MD, a psychiatrist and the medical director of UCLA's maternal mental health program. "It's a very ruminative anxiety where you're stuck in these thought loops."

MOMMAS When nothing else works, some moms have turned to psilocybin for postpartum depression relief. However, since the condition—which has increased dramatically over the past decade—manifests differently in everyone, it often necessitates varied treatment approaches, says Dr. Unverferth. The catch is that traditional treatments just don't work for some moms, leaving them struggling to find their own way forward. And when moms suffer, babies suffer, too, research shows. "PPD is not happening in a vacuum," says Dr. Unverferth. "We need to try and get mothers better as soon as we can." What's more, the consequences of untreated PPD are dire: Suicide is a leading cause of death in the perinatal period.

SSRIs are effective for PPD, some people experience side effects such as weight gain or sexual dysfunction, and it can be hard to find the right dose, according to one Cochrane Library review.

Usually the condition is addressed with medication or psychotherapy or a combination of both.

The most commonly prescribed antidepressants are selective serotonin reuptake inhibitors

(SSRIs), which increase the level of serotonin in the brain, helping to regulate mood. While

In 2023, the FDA approved the first oral medication for PPD, zuranolone, which can

ease symptoms in several days. The drug is a synthetic form of the natural neurosteroid allopregnanolone, which binds to receptors in the brain that manage mood and stress. The body makes this steroid from progesterone, which can be depleted in women with PPD. Yet despite these advancements in care, women don't always get the help they need. Research shows that up to 50 percent of PPD cases go undiagnosed as a result of stigma and women's hesitancy to disclose their symptoms to providers, and a recent study from Columbia University found that only one in two patients with depressive symptoms received some form of mental health care in their first year postpartum. Some moms, desperate for answers and help, turn to alternative methods. If SSRIs don't work, the women may think, maybe magic mushrooms will?

of PPD cases go undiagnosed.

For Shaelyn, a woman in her mid-20s from Texas, taking antidepressants exacerbated the

"I think about it as my monster period—it was really dark."

son was 7 months old, Shaelyn decided to try microdosing.

enhanced sense of connection.

joy makes you present for the sadness too."

disconnection she felt postpartum. "I was pretty isolated, living by myself with the baby," she says.

She tried taking an SSRI around four months postpartum, but it made her feel numb, creating a

barrier to her emotions—or, as she describes it, "like putting plastic wrap on fruit." By the time her

A microdose is typically defined as one-fifth to one-twentieth of a recreational dose. It is usually sub-perceptual, meaning it does not produce the hallucinogenic effects that come from a mediumstrength dose. Most scientific studies use 25 milligrams of psilocybin, or roughly 2.5 grams of dried mushrooms, to produce a medium-strength dose, but potency varies widely based on the strain. Experts also caveat that it is hard to pin exact numbers to dosages—and their corresponding psychedelic effects—because there isn't much scientific documentation to create a consensus. And while microdosing has skyrocketed in popularity, the evidence there, too, is mixed on whether it has any clear therapeutic benefits. Melissa Whippo, LCSW, works with women who've taken psilocybin for PPD. Whether they're

antidepressant-like effects in women with PPD could lie in how they seem to interact with our brain, but it's a question scientists are currently exploring. Experts know that the body converts psilocybin to psilocin, which activates serotonin receptors throughout the brain and affects how certain brain regions communicate. Specifically, psilocybin can cause huge disruptions to communication and other activity in the cortex (the

Exactly how psychedelics may foster feelings of connection and potentially produce

The night Shaelyn took her first microdose, she felt present with her baby for the first time. She got

observe and nurture this small human life. I had been completely blocked from that feeling before."

Shaelyn continued microdosing, then started trying several larger doses. Psilocybin "helped me to

feel love and presence," she says. "And it wasn't all butterflies and sunshine: Being present for the

down on the floor and played with him. "I was filled with this sense of gratitude for being able to

microdosing or doing "big journey experiences" (i.e., taking larger doses), she says, moms tell her they feel less anxiety as well as less "numbness," which SSRIs can produce. "Psilocybin seems to help people feel more even, more balanced out." 'Shrooms on the Brain A hallmark of PPD is the sense of disconnection that women experience—from themselves, their support network, their children-according to Chaitra Jairaj, MD, a perinatal psychiatrist at the Coombe Hospital and senior clinical lecturer at Trinity College Dublin in Ireland. "A lot of women say, 'I feel like I've lost myself. I feel like I'm an impostor," she says. And this is exactly why some experts, like Dr. Jairaj, think psilocybin could be a powerful treatment for postpartum depression. Studies of psilocybin in people with depression show an

outer layer of the brain, which is responsible for higher-level cognitive functions like thought, language, and memory) and the subcortex (this includes the hypothalamus and the rest of the limbic system, which play a key role in motor control and other basic functions like processing emotions and memory). This temporary reorganization of brain activity patterns can "lead to more flexible cognition and emotional breakthroughs," according to a review in the Journal of Psychopharmacology. Scientists at Imperial College London created a still-influential model in 2014 showing how these

disruptions from psilocybin work: by decreasing a cognitive control mechanism that suppresses

lower-level brain areas responsible for impulsive actions, called "top-down inhibition," and by

enhancing the external sensory stimuli shaping your perceptions, or "bottom-up processing."

As the theory goes, these two changes make people feel less influenced or constrained by their

them consider new "potentially brighter perspectives."

prior beliefs and expectations, which allows them to break their usual thinking patterns and helps

Studies of psilocybin in people with depression show they experience enhanced connection.

Psilocybin also appears to temporarily desynchronize and reset our default mode network, a group

of brain regions involved in introspective thinking, memory, and daydreaming, per a recent study

from Washington University. "It helps us understand ourselves in context," says study coauthor

Ginger E. Nicol, MD, a professor of psychiatry and founding director of Washington University's

Center for Holistic Interdisciplinary Research in Psychedelics. "It's where we imagine things

depression.

thoughts and behaviors," Dr. Nicol says.

limited to "federally approved scientific studies."

and become creative." The default mode network is also known to be overactive in people with

Psilocybin, the study found, seemed to reduce the activity in this network, as well as in the brain

trip feel "transcendent"-it causes people to lose their sense of self, time, and space. Interestingly,

these brain network changes lasted up to three weeks after the psilocybin trip. This suggests that

psilocybin could make the brain more malleable or "plastic," able to grow and connect in different

area critical for learning, memory, and imagination. This, Dr. Nicol explains, is what makes a

ways. And these two essential factors—changes in the default mode network and neuroplasticity—might be responsible for psilocybin's potential antidepressant effects. "Pairing the psychedelic with the right type of targeted therapy could establish healthier connections and eventually healthier

Research in Real Time

Back in 1970, the U.S. passed the Controlled Substances Act, which outlawed psychedelic drugs

status at the state level is murkier. It's legal in Colorado and in therapeutic settings in Oregon. It has

been decriminalized in some cities, including Oakland and Santa Cruz in California; Washington,

The Reunion Neuroscience trial, however, marks a significant shift—in scientific acceptance of the

treatment possibilities of psychedelics and, more generally, acceptance of the idea that struggling

like substance, there has been some promising research on PPD and ketamine: In women with

major depressive episodes postpartum by roughly 75 percent, found a study published in the

postpartum depression and reports a 90 percent success rate in improving PPD symptoms by

prenatal depression, one low-dose shot of a type of ketamine (after their child was born) reduced

British Medical Journal. (Ketamine Clinics Los Angeles has also seen hundreds of patients with

women need more—and better—options. While it's the first study of its kind to look at a psilocybin-

and put a significant damper on promising early research into their therapeutic benefits. Like

cannabis, psilocybin is still illegal at the federal level and classified as a Schedule I drug, but its

D.C.; and Ann Arbor, Michigan. But because it's a Schedule I drug, current research has been

where they're invited to bring their journal and photos of their baby or other loved ones to a cozy room with a comfortable sofa and floor pillows. "We try to create a feeling of safety," says Lawrence Leeman, MD, a professor of family and

"Within one hour, [patients] will be at a peak hallucinating experience," potentially seeing visuals and shapes, according to Reunion president and CEO Greg Mayes. They can listen to calming music on headphones and wear an eyeshade. The same two facilitators are there to support them throughout the experience, providing reassurance and comfort.

Afterward, participants go through two "integration" sessions to help them make sense of what happened during their trip. Here, the facilitators ask open-ended questions, and the participants share things they learned about themselves or their past, says Mayes. Their depression symptoms are assessed at days 1, 7, 14, and 28.

50 percent or more, according to cofounder and CEO Sam Mandel.) Additionally, there was a European study that aimed to investigate a different compound that mimics the psychedelic DMT, for PPD. Reunion is hoping that its psychedelic drug, RE104, can provide a "safe, fast-acting, single-dose therapy" that will help patients with mental health disorders, including PPD. The process in this phase 2 clinical trial is quite straightforward. But its implications are significant: If it shows that the drug is safe and effective, scientists will have enough information to push forward with more research. "If we can treat the symptoms [fast] and allow the mom to bond better with her baby, there could be long-term benefits." -LAWRENCE LEEMAN, MD After recruiting participants with PPD who have given birth in the past 12 months and are not breastfeeding, Reunion has the women go through two preparation sessions, in which two trained facilitators (a physician, therapist, midwife, or other health care professional) get to know them and explain what will happen during the trial. The women return a third time for a dosing session,

community medicine at the University of New Mexico, which is one of the study's clinical sites. "We get some agreements on things like touch, for instance: 'If you reach your hand out and you want us to hold your hand, is that okay?" During the dosing session, the women are injected with either a single 30-milligram dose of RE104 or a sub-perceptual 5-milligram dose of the drug if they're in the control group. (In psychedelic research, it's difficult to have a control group that doesn't receive any type of drug, so researchers use these very small doses to prevent participants from knowing which group they're in.)

"A potential benefit of using a psychedelic for postpartum depression is to have a rapid effect," says Dr. Leeman, pointing to previous psilocybin studies that showed a positive effect on depression symptoms in a matter of days. "If we can treat the symptoms [fast] and allow the mom to bond better with her baby, there could be long-term benefits."

Fungi Faults Of course, psilocybin doesn't come without risks and shortcomings. First, very little is known about the concentration of psilocybin in breast milk, so it's not possible to say whether it's safe to take mushrooms and breastfeed. (It's worth pointing out that when moms take antidepressants, very small amounts do pass into their breast milk.) There's also the fact that while psilocybin seems to effectively treat depression symptoms, there hasn't been much scientific research on the anxiety that doctors so often see in PPD patients, says Mary Kimmel, MD, PhD, an associate professor of psychiatry at Washington University who specializes in perinatal mood and anxiety disorders. Anecdotally, moms want new therapeutics,

and Dr. Kimmel is excited about the possibility of further studies and future treatments including

psychedelics that could help doctors better understand how they work and who might most benefit

from them.

Mushroom survey, some of the respondents said they experienced physical side effects, such as nausea, fatigue, and general anxiety. Several women said the trips brought up intense emotions that could be overwhelming without the time or professional help to understand what they meant.

Some respondents also mentioned that they were concerned about judgment from family and friends. Even though psilocybin research and use are growing and there are legalization campaigns

Taking mushrooms to treat PPD can be challenging in other ways too. In the Mothers of the

Some respondents also mentioned that they were concerned about judgment from family and friends. Even though psilocybin research and use are growing and there are legalization campaigns across the country, stigma around moms' use of it is pervasive. Many online forum posts start with "Don't judge me" or "I know I'm probably going to get tons of judgment for asking this."

Busting stigma is no small task, especially when it involves convincing the public that a psychedelic

drug might one day be safe and effective to treat vulnerable new moms. When it comes to future clinical trials, UNM's Dr. Leeman says it's "incredibly important that the research is done in a rigorous, scientific fashion."

Another growing controversy facing researchers is whether talk therapy should always be provided along with psychedelics. Many experts believe that the benefits of psychedelics are not the result of their pharmacological properties alone but of their combination with psychotherapy, which may

enhance neuroplasticity and help change rigid behaviors and thought patterns. Others argue that psychotherapy isn't necessary.

"I think it's unethical to offer psychedelics without the therapy component," says Dr. Jairaj.

"That's important, especially in the postpartum period, because psychedelics can be quite intense emotionally." Without that support, they "could prove to be more harmful than helpful."

whether that's a therapist or some other sort of guide. "In the postpartum period, depression can make people very vulnerable, and we need to make sure we're not making that vulnerability worse through a difficult psychedelic experience," says Dr. Kimmel.

Currently, there's no standard for the type of therapy used in psychedelic research. Some trials provide only general guidance sessions, while others offer specific psychotherapies, like

cognitive behavioral therapy. Many provide "nondirective counseling," meaning facilitators

It's crucial that women have a support system in place when taking psychedelics to ensure safety,

allow participants to lead the conversation, with the general aim of making them feel safe and comfortable. "It's really the therapist's or guide's job to be there affirming them, reflecting things, recording things—but not directing it," says Natalie Lyla Ginsberg, global impact officer at the Multidisciplinary Association for Psychedelic Studies. "It's about allowing the patient to lead the way."

The Reunion study provides what researchers call "psychological support," through the preparation and integration sessions, but not formal psychotherapy. "That's the big question in

this area of clinical development and research right now," says Mayes. "What's causing the positive

effect, the drug or the therapy? We want to have a clear evaluation of what the drug is doing so

there's no cause for confusion or uncertainty."

contributed to the results.

He adds: "Reunion is not opposed to therapy, but we need to give the regulators a clear view into the safety and efficacy of RE104, without the addition of psychotherapy."

A Psychedelic Path Forward

The past few years have been a rocky road for psychedelic-treatment approvals, making it unclear if psilocybin will ever get the official nod from the FDA.

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In 2019, the FDA called psilocybin a "breakthrough therapy" for major depressive disorder, and several companies have since developed methods for its use in treating depression (but not PPD), which are now in phase 3 trials. If those are successful, the companies can then apply for FDA approval.

But last year, the FDA delivered a shocking blow when it rejected an application for therapy using the psychedelic MDMA to treat people with PTSD. Despite encouraging results in studies, the FDA said the benefits didn't outweigh the risks and requested more clinical research. The controversy over psychotherapy was also a key part of the MDMA decision: FDA advisors said it was difficult

That decision complicates the path forward for other psychedelics like psilocybin, and Ginsberg

is concerned that other drug companies will abandon the talk therapy component of psychedelic

treatment to avoid a similar fate. She is hopeful but not overly positive about the development and

FDA approval of a PPD-focused psilocybin drug because the process is so lengthy and expensive,

administration that is demanding a review of all active research projects that include keywords

she says. Not to mention the potential roadblocks to scientific progress in this area under an

to determine how much the accompanying talk therapy (which the FDA does not regulate)

In 2019, the FDA called psilocybin

a "breakthrough therapy" for major depressive disorder.

like *female*. Plus, any postpartum meds have the added hurdle of proving they're safe to take while breastfeeding.

Mayes, on the other hand, is optimistically focused on getting an FDA-approved RE104 to market by 2029.

If the drug is given the go-ahead by the FDA, women could, in theory, receive it at a specialized treatment center. "We stand a great chance to be the first psychedelic in the United States to be approved for postpartum depression," Mayes says.

Scientific progress may be slow due to psilocybin's complex and not-yet-well-understood impacts—and some women are taking matters into their own hands.

After having her fourth child, in 2023, Nohea entered yet another period of depression. Her marriage had recently fallen apart. "It was like the whole world was imploding," she says. "I was in a place of dark disconnection, not knowing how to move forward as a single mom."

She decided to go back to what had worked in the past: mushrooms. But this time, she took a large dose. "I saw a lot of imagery of female heroes—Joan of Arc, Cleopatra, Isis—all these iconic, powerful women. It infused me with this knowing that I can do it, that I have strength. It made me

love being a mom. It stopped being a responsibility and started being a role I get to play happily."

It's been almost a year since that experience, and Nohea can still tap into that powerful frame of

became: Okay, this sucks, but it's going to be an experience. And tomorrow we get to start over."

mind. "No matter how bad things got, I never let it diminish my light," she says. "My approach

There's also the possibility that psilocybin will eventually be approved for use in people with

making it similar to ketamine, a dissociative anesthetic with hallucinogenic effects.

general depression, allowing health care providers to prescribe it off-label for women with PPD,

PROP STYLING BY JJ CHAN.