AUGUST 1, 2024 / ECSTASY THERAPY: PENICILLIN FOR THE SOUL

[HALF SECOND OF SILENCE]

[BILLBOARD]

SEAN RAMESWARAM (host): *Today, Explained.* Sean Rameswaram here with Haleema Shah, one of our reporters and producers here on the show. Haleema, the country is thinking about who the next president will be, what the next government will look like. But you're here to tell us about something that our current government might do this month, in August.

HALEEMA SHAH (senior producer/reporter): Yeah, I'm here thinking about what the next big drug might be,

SCORING IN — 20240801\_Rosequartz\_v01 (AK ORIGINAL)

HALEEMA: MDMA, the drug that most people might know as ecstasy or molly, is actually under consideration by the FDA as a potential therapeutic drug.

SEAN: And this drug, unbeknownst to most, probably, has been on quite a journey to get here.

HALEEMA: It has. And today we're going to take a journey from the 1970s all the way to today, where this drug goes from this kind of reflective, introspective drug to this demon drug of the dance floor all the way to something that could potentially treat some of the toughest cases of PTSD.

SEAN: FDA, MDMA, maybe a little DEA, PTSD coming up on *Today, Explained.*

SCORING OUT — 20240801\_Rosequartz\_v01 (AK ORIGINAL)

[THEME]

SEAN: Haleema, before we get too deep into the history of MDMA, and, and various therapeutic treatments that may exist, we should remind people that this drug is, and for a very long time has been, illegal.

HALEEMA: It, it’s true, it has been illegal my entire life.

SEAN: And it turns out it’s been illegal my entire life!

HALEEMA: Yes, it’s something the DEA has classified as a very bad drug since 1985. Basically the agency has a way of classifying drugs from 1 to 5. The lower the number, the more the DEA has a problem with it. So schedule five will have cough syrup and antidiarrheal drugs, and schedule one will have heroin and MDMA. But the thing is is that recent science suggests MDMA has lower abuse potential than previously thought. So today, there’s these promising and controversial trials that suggest MDMA plus therapy can treat PTSD. Which is a really big deal because 6% of Americans will have it at some point. And some of them will improve with the treatments we’ve had for decades…others will not.

SEAN: Hm.

HALEEMA: So there are people with treatment resistant cases who are hoping that this month the FDA will approve MDMA-assisted therapy. But that might not happen, because an independent advisory committee told the FDA this therapy isn’t ready to go public yet.

*<CLIP> FDA ADVISORY COMMITTEE MEMBER: Although I did feel there was some effectiveness here. I don't feel like the, the risks, the missing data, the gaps, the unknowns outweigh that benefit.*

HALEEMA: So now, MDMA assisted therapy, which was expected to be one of the first psychedelic therapies to emerge out of the underground, is at this, kind of, make or break point. And as I started looking into the clinical trials and the FDA decision, I became fascinated by how old this idea of MDMA in therapy is and how long people have been pushing for it.

SEAN: How old is it?

HALEEMA: Well technically MDMA was created over 100 years ago by a German drug maker, but it sort of went dormant. The story really gets going in the US in the 1970s, in Northern California.

SCORING IN — Mind Level

*<CLIP> “DIRTY PICTURES”*

*SASHA SHULGIN: So you think you know how the mind works? There’s a lot to be found. You have to find out by influencing, changing, disturbing…*

HALEEMA: There’s a chemist named Alexander, AKA ‘Sasha’ Shulgin. He was respected in his field. He creates a successful pesticide for Dow Chemical. He did expert witness work for the DEA, but the thing that put him outside of the mainstream,besides his Hawaiian shirts and sandals, was his passion for psychoactive compounds, which he said he synthesized hundreds of.

*<CLIP> SASHA SHULGIN: My curiosity was if such a simple molecule can allow me this type of of openness, this so-called psychedelic experience, what modifications that molecule will modify, improve, change, redirect that type of introspection.*

HALEEMA: By 1976, Sasha manages to synthesize MDMA and he tests it on himself.

*<CLIP> SASHA SHULGIN: 25mg. No effect. 40, no effect. 60mg, no effect. 81mg, I got a plus one…53 minute smooth shift into a light intoxication…*

SEAN: Very scientific about taking drugs for fun. For science. Sorry. For science.

SCORING OUT — Mind Level

HALEEMA: Well, he wasn’t the only one doing this in a science-y way. He’d take the stuff he made in his lab to a research group of about eight people. They’d trip on it together. And then they’d record their observations. And these people were scientists, therapists, friends…who all had their own way of looking at psychedelics. Including one woman in the group who was very interested in Jungian psychology. Her name was Ann.

*<CLIP> ANN SHULGIN: Basically, I see psychedelics as spiritual tools. Which is not quite the way Sasha sees them.*

HALEEMA: She eventually married Sasha Shulgin.

SEAN: Aw.

HALEEMA: And they were bonded by their mutual, but differing interests in psychedelics. Ann, and others who were into psychotherapy, believed the stuff her husband tinkered with in his lab could be like “penicillin for the soul.”

SEAN: “Penicillin for the soul.”

*<CLIP> ANN SHULGIN: They are very good tools for anyone who's on any kind of spiritual journey, whatever that means. And it means different things to different people. And, psychotherapy could be, a part of that. I mean, people who go into psychotherapy are on a spiritual quest, whether they call it that or not.*

SEAN: Did, did it go anywhere, or was it just some, some, you know, Bay area kids getting high?

HALEEMA: These were grown ups. Ann and Sasha were both in their middle age when they met. And they’ve both died now, but they have left a legacy behind. And I wanted to understand how their experimentation really set the stage for the world we’re in now. So I went to California - to a place called Shulgin Farm.

HALEEMA: OK, we’re really taking a hike. OK, going up the side of a hill.

SEAN: Did you find any leftover MDMA from the 70s?

HALEEMA: I did not, but I did find a woman named Wendy Tucker.

SEAN: Oh.

WENDY: I'm Ann Shulgin’s daughter.

HALEEMA: Wendy is Sasha’s stepdaughter. She was in high school when her mom started seeing him.  
  
SEAN: Hm.

WENDY: She was really blossoming, and she came and spent more time out here with Sasha over those couple of years that they were first together, and I could just see the change in her. It was like this expansion…

HALEEMA: When her mother lived with Sasha, Wendy often visited. And she still visits, because she’s trying to turn this farm into a living museum. To preserve everything from the tree the Shulgins tripped under to the house that they had dinners in.

WENDY: The back door heads out to the cactus garden out here and these are San Pedro.

HALEEMA: San Pedro AKA drug cactus! You can extract mescaline from this stuff, which Sasha did.

WENDY: This path leads to the lab.

HALEEMA: Wendy says it’s an active lab. Still used today by a friend.

WENDY: This was Sasha’s lab for years and years and years. So you can hear some things running in here.

HALEEMA: Ooh. What’s that smell?

WENDY: That’s the smell of chemistry. Yeah it used to be even more pungent in here I gotta say.

HALEEMA: Yeah. Like, nail polish remover and garlic.

SEAN: Yum.

HALEEMA: There was a fanta-colored liquid that was spinning in a glass funnel. And as the fumes hit me, so did something else: this is a chemist’s kitchen, where the ingredients were things that either grew in his backyard or were on a shelf a few feet away. Here, things that we know as drugs are still chemical compounds with effects that are waiting to be understood. And you could taste them and find out what those effects are – at your own risk.

WENDY: As you can see it used to be a toolshed and a little basement to house. There used to be an open fireplace here.

HALEEMA: And I find it pretty poetic that Sasha’s lab was a converted toolshed. Because as a chemist, he saw himself as a toolmaker.

<CLIP> *SASHA SHULGIN: I'm looking for tools that can be used for studying the mind. And other people will use the tools in finding out the aspects of the mental process and how it ties to the brain.*

HALEEMA: And after synthesizing MDMA here in the toolshed, that’s exactly who Sasha shared it with. About 20 miles from Shulgin Farm, in Berkeley, I met one of the people who used MDMA in his practice back in the 80s. His name is Phil Wolfson, he’s a physician and a friend of the Shulgins.

DR. WOLFSON: By the time I got into it, you know, there were quite a few hundred practitioners using MDMA along with other psychedelics.

HALEEMA: I reached out to a lot of different experts about this early MDMA era. And one historian I spoke to suggested the number of MDMA therapists was closer to two dozen. But it’s hard to verify because this wasn’t happening very openly. Because MDMA was in a regulatory gray zone. It was not an FDA approved prescription drug. And it also wasn’t scheduled as a controlled substance by the DEA. What it was was promising to a small, but influential community of countercultural scientists and therapists. And the Shulgins were really at the center of that circle.

DR. WOLFSON: Sasha was the chemist and Ann's development was around being the kind of the, the, wise woman for people and people would call up and ask her advice.

HALEEMA: Phil Wolfson said she would run therapy groups with him, and he also offered MDMA-assisted therapy on his own. There's one couple that he told me about that he still remembers. A husband and wife from Ohio.

DR. WOLFSON: They were a very dysfunctional couple. They had been in a long term marriage and they had four boys. And the woman was very unhappy in the marriage, and the man was fairly indifferent as a human being.

SEAN: Sounds like a description of many men!

HALEEMA: Well, the thing about MDMA is that it makes you feel open and empathetic. So for a psychedelic therapist, that’s great stuff if your client is too indifferent to notice problems in his marriage.

DR. WOLFSON: What happens with certain people with MDMA who are not easily intimate is that they get close with MDMA and it wears off, and then they have a panic about the closeness that they felt. But the couple came and persisted and I saw them for a long period of time...

HALEEMA: Phil Wolfson’s memories of this time are pretty hazy. And he actually told me that the woman in this couple died, so I can't ask them about what she thought of all this, but in her therapist’s opinion, things went really well.

DR. WOLFSON: They eventually got divorced, which was good. And they each went their separate ways, found other partners, and she became a remarkable supporter of MDMA work and our work.

HALEEMA: There’s a shift for the woman in this couple…the quote unquote “work” of changing her marriage, becomes the work of changing therapy…with psychedelics. And it's all happening in an era when people felt like psychiatry needed a breakthrough.

PHIL WOLFSON: The medicines that we’re talking about promote love and kindness. Not in every case, but psychiatry has always been suppressive and repressive and now we're expansive and we have been for a long time.

SCORING IN — GRAYAGATE

SEAN: This sounds so love-y dove-y. But not everyone’s loving MDMA, right?

HALEEMA: Right. There are stories of incredible success, but there’s also accounts of abuse from this early era. There was a psychiatrist and a therapist who were both considered pioneers of this lost their licenses after patients sued them for abusive sexual behavior in MDMA sessions. But MDMA’s days, I think, were always numbered because it came on the scene after President Nixon declared a War on Drugs. And what the drug war had already done by that point was make another psychedelic - which had therapeutic potential and became a recreational drug - illegal. That psychedelic was LSD, and the Shulgins were very aware of that, and they didn’t want the same for MDMA. They wanted it to stay therapeutic…but obviously, that did not work out.

SEAN: The DEA comes for MDMA when we return on *Today, Explained*.

SCORING OUT — GRAYAGATE

[BREAK]

<CLIP> MILEY CYRUS – “We Can’t Stop”

*So la-da-di-da-di, we like to party   
 Dancing with Molly  
 Doing whatever we want   
 This is our house*

*This is –*

SEAN: *Today, Explained*. Back with Haleema Shah. Haleema, up until this point we've been talking about MDMA in therapy, kind of these experimental sessions that people are having in the 70s. But of course, that's not how most people know this drug. They know it as ecstasy, they know it as X, they know it from popular culture. They know it from raves.

SCORING IN — Workout (APM)

SEAN: When did people start using this drug for fun?

HALEEMA: By the early 80s, it's obvious that MDMA isn’t just a therapy drug…it’s a club drug. And the journalist Rachel Nuwer has written about these clandestine labs that start making MDMA, and how the drug gets to the dancefloor. She writes that you could order a beer and ecstasy at the Starck Club in Dallas.

SEAN: Wow!

HALEEMA: And that's pretty much how it gets on the DEA’s radar. The agency wants to ban this stuff that young clubgoers are using. And Ann Shulgin catches wind of this and decides to take matters into her own hands.

SCORING OUT — Workout (APM)

WENDY: So this was a letter that Ann Shulgin wrote to President Reagan. July 25th 1984.

HALEEMA: And back at Shulgin Farm, where there’s photos of Ann and Sasha decorating the walls of their house, Wendy read her mom’s words to me.

WENDY AS ANN: Dear Mr. President, I am writing to you privately and urgently in the hope that the information I have received from a single source, who could well be misinformed, is valid.

HALEEMA: Ann is like, this stuff is great for therapy. It dissolves barriers to communication and it creates empathy.

WENDY AS ANN: It seems to allow contact with what might be called the God-space within.

HALEEMA: And she's like, look, if the DEA makes this a schedule one drug, we can't even use it in therapy. So why not make it a schedule three drug…

SEAN: Hm.

HALEEMA: …Which is less restrictive. You can basically still crack down on the shady stuff in those clandestine labs…

WENDY AS ANN: …while allowing the informed and medically or psychologically trained people to continue using it in therapy.

HALEEMA: And then she builds up to this case about the Cold War, that a group of dissident psychonauts and spiritual leaders had shared the recipe for MDMA with like minded people in the Soviet Union.

WENDY AS ANN: MDMA might become the avenue for communication between the intelligent, concerned people of both countries, in the effort to prevent nuclear war and the destruction of the human experiment on earth.

SEAN: Can we assume that's never happened?

HALEEMA: I know based on the way the world is going right now, it's either happened and it hasn't worked or it hasn't happened.

SEAN:So Ann’s writing Reagan being like, ‘Ron, baby. This thing is going to bring about world peace. You don't want to make it schedule one.’ Meanwhile, what's the DEA saying in his ear?

HALEEMA: Oh, the DEA hates this.

SCORING IN – Tourmaline (APM)

*PHIL DONAHUE: Well guess what? We've got another drug. It is synthetic, and it makes you love everybody.*

HALEEMA: This is an episode of the Phil Donahue Show from April 25th, 1985. It features a very frustrated DEA agent.

*GENE HAISLIP: What we've seen in the last couple of years is an escalation of the availability.*

*PHIL DONAHUE: What are you concerned about? A lot of young kids bouncing around.*

*GENE HAISLIP: Precisely. The other thing is, when we apprehend these people, they can be dealt with at the present time is not against the law.*

*PHIL DONAHUE: So you can't apprehend them. But you really want to, don't you?*

*GENE HAISLIP: I think it's, I think it's important.*

HALEEMA: Just one month later, that same DEA agent, Gene Haislip, speaks at a press conference.

*<CLIP> GENE HAISLIP, DEA: This morning, the Drug Enforcement Administration is announcing its intention to place the drug, known as MDMA, or by the street name ecstasy, under emergency controls in schedule one.*

HALEEMA: The DEA says this is a health risk and effectively bans the drug, and research becomes very, very difficult to do.

SCORING OUT — Tourmaline (APM)

SEAN: Wow. So this is a big moment for the trajectory of MDMA.

HALEEMA: Yeah. MDMA is now a public enemy. And Sasha still has a DEA license that allows him to analyze scheduled substances, but the Shulgins have some fearful thoughts about what the drug war will do to their research.

*<CLIP> ANN SHULGIN: I remember both of us lying in bed, speculating…*

*SASHA SHULGIN: we do other things than speculate <laughs>*

*ANN SHULGIN: We, we, we had a vague picture in our minds of masked intruders breaking into the laboratory with baseball bats.*

HALEEMA: To keep their findings from being destroyed or stashed away from the public, Ann and Sasha decide they want to publish a book…and they name it PihKal.

*<CLIP> SASHA SHULGIN: For phenethylamines I have known and loved.*

SEAN: Wow. <laughs>

HALEEMA: I know right?

SEAN: Rolls right off the tongue.

HALEEMA: Phenethylamines are drugs that can have hallucinogenic or stimulant effects, like MDMA. And the book is this thinly veiled memoir that covers everything from the chemistry of psychedelics to the chemistry of the Shulgins. It talks about their childhood, and their courtship, and it talks about the sex they had.

*<CLIP> ANN SHULGIN: No, it’s not sex. It’s fantastic for making love. And there is a difference. The orgasm is a connection with God.*

HALEEMA: When the Shulgins self-published PihKal, they classified it as fiction. As an effort to protect themselves legally—the book was no longer an account or manual for illegal drugs, it was a story that featured some illegal drugs.

*<*[*CLIP*](https://www.youtube.com/watch?v=XxVdvZV4zLk&t=710s)*> ANN SHULGIN: The first people we had sent copies to, were people we knew in the DEA or the chemists, in particular. So we felt, that there was a possibility that the DEA would find this, so interesting and even perhaps useful in some way, that maybe they wouldn't be too angry with us.*

*SASHA SHULGIN: It didn't quite work out that way, though…*

HALEEMA: Especially because after the book came out, Sasha boasted about his DEA license in the press.

WENDY: And I think that probably was a little bit of a slap in the face for them.

SEAN: Wow.

HALEEMA: Wendy thinks that’s why the DEA did, in fact, raid Shulgin Farm in 1994.

SEAN: Classic.

SCORING IN — Loopback

WENDY: They were very polite when they came, came in their jeans.

HALEEMA: Not quite masked men with bats. These were agents who noticed that Sasha Shulgin had chemical samples scattered around the place, instead of cataloged and locked up like scheduled substances are supposed to be.

WENDY: I was here that day. We were just walking around the house with them as they were finding things that weren’t locked up and pulled out little envelopes from the shelf with samples that people would send him and say, this is a $10,000 fine, doctor Shulgin. This is a $10,000 fine, doctor Shulgin.

HALEEMA: And the fines came out to $25,000.  
  
SEAN: Wow.   
  
HALEEMA: And Sasha also relinquished his DEA license.

WENDY: He certainly kept doing chemistry. He wasn't going to stop but he…yeah, he had to be a lot more private about it.

SCORING OUT — Loophack

HALEEMA: So in the decades that followed, Sasha kept “doing chemistry.” DARE programs and schools talked about the dangers of ecstasy. Lawmakers kept on with their drug war. And that included a senator named Joe Biden who introduced something called the Reducing Americans Vulnerability to Ecstasy, or RAVE Act in 2001.

*<CLIP> SENATOR JOE BIDEN: If I were governor of my state or mayor of my town, I would be passing new ordinances relating to stiff criminal penalties for anyone who held a rave. The promoter, the guy who owned the building.*

HALEEMA: So at this time, the scientific establishment is pretty against this too. Johns Hopkins University, which is now a ground zero for psychedelic research, publishes this really famous study in 2002. And in that study, it says that MDMA is neurotoxic, which means that it's poisonous for the brain.

SEAN: Wait, how does this go from a drug that some nice sounding people in the Bay Area are tinkering with in the 70s to neurotoxic, poison for your brain, by the early 2000s? To, like, we're back at you know, this is a potential psychotherapy for PTSD or something in 2024? What's that arc?

HALEEMA: Yeah. Well, fun fact about the study is that it was eventually retracted.  
  
SEAN: Huh!  
  
HALEEMA: Because it turns out that Johns Hopkins injected the test subjects, which were ten monkeys with the wrong drug.   
  
SEAN: What?! What did they … what did they give the poor monkeys?!  
  
HALEEMA: <laughs> They gave them speed.

SEAN: Oh my goodness.   
  
HALEEMA: Yeah.  
  
SEAN: Wow, Johns Hopkins.

HALEEMA: I know, it was embarrassing for them. But the damage is done at this point. I mean, the narrative around MDMA as neurotoxic is out there. You hear that in the DARE programs in school. But at the same time, there are people from the Shulgin Era who don’t buy that narrative, and that’s why, almost right after the DEA bans it, a psychedelic advocacy group is born.

SCORING IN — Bees - Marble Beat

HALEEMA: It’s called the Multidisciplinary Association of Psychedelic Studies, or MAPS. And for the last 40 years, it has been advocating to make the drug medicinal, including by running clinical trials. And their advocacy has really taken hold in the last decade, after a new era of US wars and an epidemic of veteran suicides.

JONATHAN LUBECKY (veteran): I grew up in the DARE era where you had good drugs and bad drugs. Good drugs gave us the opioid epidemic. Bad drugs cured my PTSD.

HALEEMA: And tomorrow, we'll get into how MDMA’s reputation goes from 'bad drug" to "healing drug” - starting with veterans.

SEAN: Okay! Cliffhanger. That was Haleema Shah. She reports and produces at *Today, Explained*. Her reporting this time around is supported by a grant from the Ferriss-UC Berkeley Psychedelic Journalism Fellowship. Thanks, guys. And as she mentioned, we’ve got a few more coming for you.

This one was edited by Lissa Soep and Matthew Collette; fact checked by Laura Bullard, and mixed by Rob Byers and (first name) Andrea (surname) Kristinsdottir – for anyone who was wondering. We used clips from two documentaries. One’s called *Dirty Pictures* and the other’s called *Better Living Through Chemistry*. Find them where you find your docs. And find us right here. *Today, Explained!*

SCORING OUT — Bees - Marble Beat

[10 SECONDS OF SILENCE]