



The future of psychedelics for healing trauma

Guest: Andrew Penn

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[00:00:09] Meagen Gibson

Welcome to this interview. I'm Meagen Gibson, co-host of the Trauma Super Conference. Today I'm speaking with Andrew Penn, a University of California, San Francisco trained, psychiatric nurse practitioner.

He serves as an associate clinical professor in the School of Nursing and practices at the San Francisco Department of Veterans Affairs. Andrew completed extensive training in psychedelic-assisted therapy and has worked as a study therapist on a phase 3 MDMA-assisted therapy protocol for PTSD, and is co-investigator of a study of psilocybin-assisted therapy for major depression.

He's a nationally recognized speaker on psychedelic-assisted therapy and cannabinoids in psychiatry and the cofounder of the Organization of Psychedelic and Entheogenic Nurses, OPENurses.

Andrew Penn, thank you so much for being with me today.

Andrew Penn, NP

Thanks for having me, Meagen.

Meagen Gibson

Let's start with the elephant in the room. What are psychedelic drugs? And why are they being studied as supplements to psychotherapy?

Andrew Penn, NP

So psychedelic drugs comprise a broad category of different compounds. But broadly speaking we're talking with regards to psychiatry, about MDMA, which is Methylenedioxymethamphetamine. It's a mouthful. Which is known colloquially as molly, or ecstasy, for the treatment of PTSD. And psilocybin, which is the active ingredient in magic mushrooms, for the treatment of, largely for depression, but we're also looking at it in certain substance use disorders as well.

So the important thing to remember about both of these modalities is that these are used to catalyze psychotherapy. They're not used as a drug just by itself, which is really important to underscore that. This is different from how we do pharmacology traditionally where you take a pill to get an effect and

it may or may not be accompanied by psychotherapy. And in both of these models the medication is used to really enhance and catalyze a psychotherapy process.

[00:02:17] Meagen Gibson

That's a really important distinction that you made. And I love that you reminded us of the precedent of medication and medication-assisted anything in this country and around the world, if you have a problem and you take something to fix it. Whereas these types of treatments are alongside therapy.

If you could tease that apart for me, and I know you mentioned it very briefly, but which drug is best for the thing that you're trying to get somebody through in psychotherapy treatment?

Andrew Penn, NP

Why don't we start with talking about PTSD since that seems most germane to the conference here. So MDMA is used in the treatment of PTSD in the context of psychotherapy for a couple of different reasons.

So when we look at what MDMA does in the brain, MDMA does several things. One, it causes a large release of serotonin, which is probably what, in recreational use, creates a pleasurable prosocial feeling. People on MDMA tend to want to be around other people, they feel talkative sometimes, they feel close to other people. That is also probably accounted for by the fact that the drug causes a release of a compound called prolactin and another compound in the body called oxytocin. And all three of these chemicals together, which are naturally occurring chemicals in the body and brain, the release of them is increased by MDMA.

Why would that have any value in therapy you might be wondering?

Meagen Gibson

How'd you know my next question?

Andrew Penn, NP

People with PTSD often have a lot of difficulty with feeling safe, which makes sense because we can think about PTSD as the brain is struggling to feel safe because there was a time in that person's life when they felt profoundly unsafe, profoundly in danger. And so we can think about PTSD as being stuck in that state, not through any lack of will or interest. Lord knows, people with PTSD would love not to feel that way, but the brain really just doesn't buy it. And Bessel van der Kolk has said that this resides in the body, that the body really needs to feel safe in order for trauma to be processed, which makes a lot of sense.

One of the things that happens in people with PTSD is that a structure of the brain is called the amygdala. So the brain, you can think of as a three layer cake. You've got your brain stem on the bottom. The middle layer is something called the limbic system. And then the top is that crinkly part we call the cortex. So the amygdala is in that middle section, something called the limbic system, which sits on top of the brain stem. And its job is really like airport security. So everything comes into the brain, just like if you want to get on a flight anywhere in this country you've got to go through airport security, there's no way around it. And so if you want to get information into the brain you've got to go past the amygdala.

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And the amygdala works like airport security to pick up threats. And so just like airport security, most information coming in the brain is not a threat. It's just day-to-day life. And just like most 99.9% of passengers going through airport security do not represent a threat. So the airport security and the amygdala have this difficult job. They need to pick out the occasional threat that comes through.

The problem is that after somebody's experience of trauma, a lot of times the amygdala really becomes oversensitive. So it becomes like if you've ever had a smoke detector that goes off every time you cook dinner, it's like that. The house is not actually on fire, but this little box on your ceiling doesn't quite understand that so it's making a racket and thinking that the house is on fire. Well, somebody with PTSD, that alarm system becomes very sensitive, perhaps too sensitive. And so what that looks like is people have an exaggerated startle response, they have difficulty settling in and feeling safe and comfortable.

And what MDMA seems to do is it seems to turn that area of the brain down for the duration of the drug effect. At the same time, it's also increasing activity in this area right behind your eyebrows, called the prefrontal cortex. And the prefrontal cortex is a really important part of the brain because it helps to, it's really where we think about a lot of things. It's where we make sense out of things, we make a story, we make decisions. And so normally the prefrontal cortex would say to the amygdala, hey, that noise that you just heard in the other room is actually not anybody coming in to harm you. The cat knocked something over or something like that. But somebody that has PTSD, they hear that noise and they startle because the amygdala is oversensitive and the prefrontal cortex can't weigh in and say, oh, that's nothing to worry about, that's neutral.

So what's this all got to do with therapy? People with PTSD in therapy often struggle with either one of two extremes. So they either feel totally overwhelmed by therapy and they feel flooded by it, so they can't tolerate it. Or they can't engage in it because it doesn't feel safe. And so there's a very narrow, what's known as a window of tolerance, for therapy with people with PTSD. It makes a lot of people with PTSD not seek therapy because they don't want to talk about the traumatic event because it makes them upset.

And so what MDMA appears to do is to widen that window of tolerance so that people can not only talk about the traumatic event, but they can feel some at least, brief embodied sense of safety.

I'm thinking about a patient of mine who went through MDMA therapy. When I asked her about it, she said it was the first time she had ever felt safe in her life. Felt physically safe. So you get that opportunity to really process trauma.

And the other valuable component to therapy is that a lot of people with PTSD have difficulty trusting, particularly if the trauma was interpersonal in nature, as many traumas are. Another human being caused you harm rather than a hurricane or an earthquake or something. Another human being harmed you. And that makes it difficult to trust.

And so the oxytocin and prolactin aspects of MDMA are interesting and that these are hormones that are released when we bond as human beings. So oxytocin is often associated with breastfeeding because it is released by both mother and infant during breastfeeding, and it facilitates what we call mammalian pair bonding. But really, that feeling of, I trust you, I feel close to you, I can talk to you. And so that is pretty obviously advantageous in psychotherapy.

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And so that's why we think that MDMA has this beneficial effect, sort of catalyzing the psychotherapy process. It's also important to remember that the psychotherapy happens not only during the drug session but before and after. So the drug session is bookended by many hours of therapy, both before the actual drug session and also afterwards, in what we call integration psychotherapy, where once the drug session is over, many days or even weeks later, you're talking with those same two therapists that you went through the drug session with because you've got these two people in the room with you the whole time. And you're talking about what came out of that session, what emotions you experienced, perhaps what things came to mind for you. And probably, most importantly, how you want to try and do things differently in the future.

Meagen Gibson

And I imagine that that is incredibly powerful, especially for somebody who had some sort of trauma in childhood and has an experience where they've never felt safe to get that window of that experience and know what that feels like in your body. Neuroplasticity is such a buzzword right now, but in creating these neural pathways, if you've never had that or haven't been able to connect with it as an adult, to have that window as an anchor of, oh, this is what's possible, this is how it's possible to feel through doing this kind of work. And eventually it's not like a switch that now you're safe, I'm sure, but through continued exposure, through continued modalities of therapy, through this continued treatment, that you're going to get more and more able to anchor into that.

Andrew Penn, NP

Exactly, because one of the things that is being looked at a lot in psychedelic therapy is the Acceptance and Commitment Therapy Model, ACT. And so in ACT there's this idea that a lot of our mental health problems, if you will, emerge from something called experiential avoidance. Which is essentially saying, no, I'm not going to feel that, I'm not going to think that, I'm not going to go there. And by doing that, that's an obvious problem in say somebody who has a phobia, who is afraid of going out in public because, well before the pandemic you had to go and get groceries at least. Now you can have them delivered to you. But it can have more subtle and insidious effects if somebody refuses to feel an emotion for example.

And so I think a lot of people with trauma often actively have an evolved way of keeping themselves safe. It's not that they wake up in the morning and say, I'm not going to let myself feel any strong feelings. It's just this is what allows them to function and feel safe. They get this brief moment of, what if you felt all the feelings and it was okay? And the drug wears off and they go back to what we would call an ordinary state of consciousness. But I think there's something really valuable about that touchstone experience.

I have this little pin here. This is a little stylized map of Barcelona. And I have this because I went to Barcelona about 25 years ago, and I can still conjure Barcelona in my mind. I haven't been back in 25 years. I'd like to get back one of these days, but I've never been back, but I can conjure down to the details of what the ocean smells like and what the sound was on the streets. I can bring that to mind. And it's a touchstone place. And I think for people who are struggling with trauma or depression, to have even a transient moment where they think this is what it could be like, is very powerful because it allows you to see that it is possible.

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And now you go back to your ordinary state of consciousness and you may not feel that way when you get back there, but you know that it's possible, and then it becomes a north star, if you will, to keep orienting yourself back towards.

So it's important, despite the way the media tends to cover this as a one and done treatment. It's more complicated than that. It's more complicated. And we love a quick fix in this culture. We love something that's going to make something go away right away. Poof you're all better. And that, I think, is one of the risks that psychedelics run is that people will see them as this quick fix. I get messages every week from people looking for this kind of treatment. And I get it. Our treatments are really woefully inadequate. It's better than nothing. But they leave a lot to be desired, and they give a lot of people side effects, and they don't work completely for many people. And so I fully understand the hunger for a treatment that's going to make this go away, but it's important to understand that this is not a one and done treatment, that there's a real process that's involved.

Meagen Gibson

And you mentioned media normalization of psychedelics and it's often covered as recreational, and even when not done with recreation in mind, even when done with intention around trauma, it's often still, because of legalities, marketed and the stories are told as this, I went into the forest and did this thing. I recently saw one about somebody that injected frog venom or something, and it cured me of all of my XYZ. And I can see how that would be really frustrating for someone like you who does this work and knows the space that you're creating and the modality that you're creating and just all of the therapy and instruction and all of it that's involved to get someone from A to B truly, in a way that's going to last and have a real changing effect on their life.

Andrew Penn, NP

Yeah. Absolutely. And I've often thought that psychedelic journeys are, particularly when they have that kind of intention, they're similar to that Jungian idea of the hero's journey. We love hero's journey stories in our culture.

Meagen Gibson

They're really neat and tidy.

Andrew Penn, NP

Star Wars, right. One day Luke is farming on that desert planet, and then the next day he's blowing up the death star, and then he's back to regular life. And you forget all the trials and tribulations and challenges that happen between that departure from ordinary life and that reemergence back to ordinary life.

That can be a very transformative experience, but it needs to be held with a lot of care. And I think you have to understand that psychedelics are deeply contextual. And by that, I mean we talk a lot about this idea of set and setting, which refers to mindset and physical setting. But then there's this third component that sometimes people call matrix or context, which is really the story about the drugs and the larger context, the larger culture.

[00:17:33]

So in the 1960s they were this Bacchanalia liberation agent, that this was going to change, tune in, turn out, drop out that kind of narrative. And then in the 70s and 80s, when I was coming of age, they were these dangerous drugs that would cause you to lose your mind. And now the story is that they are these miracle cures because of people like Michael Pollan and Anderson Cooper talking about them in popular media. And of course, they've got everyone's ears perked up.

And there's a temptation to think like, oh, this is just like Prozac or something. You just take the pill and get the effect. And it's further complicated by, there are millions of Americans who have had recreational psychedelic experiences. Most people don't talk about it in mixed company because of the social stigma around drug use, but the epidemiologic data would show that there's millions of people that have had these experiences. And many of them would tell you that they were interesting or maybe even powerful, but they may not necessarily be therapeutic if they're not held with that intention.

So the idea there really needs to be a specific intention and the support and resources around the person for them to be able to have that experience. And just taking MDMA at a festival is not necessarily going to result in this experience. If anything, it can sometimes be really challenging if those emotional issues are right beneath the surface and all this energy that we put into holding that flood wall back is gone, then sometimes people can feel really overwhelmed.

I've worked in Harm Reduction at Burning Man, a big festival at a place called the Zendo, and we would have people coming in all the time who thought they were going to go out and have a good night dancing or whatever and ended up unexpectedly remembering when their mother died when they were 6 years old. I mean, it's not that they've forgotten it, but that was not their intention. They had a very visceral grief experience, and that evening turned into a very different thing, not necessarily a bad thing, but certainly it was not what they expected.

Meagen Gibson

I heard you say a lot of things, and I'm so glad that you brought up the recreational use and the way people expect, like they expect to, with just their intention, be able to control their response. And that's so often not the case. So many of us have things that are holding us at bay. And I've heard dozens of stories of that exact same thing happening to people where they had an expectation about what the result was going to be and it turned out very different and almost further traumatizing or similar experiences.

Andrew Penn, NP

It can be. I think a lot of times what people sometimes refer to as bad trips, which is a term that we don't usually use in the research world. Even in the harm reduction world we normally talk about things as being challenging experiences because there's so much fear around having a bad trip. But I think a lot of times what people refer to as bad trips are actually their grief experiences. This is something I'm working on. I'm starting to draft a book around this, it is around grief and psychedelics, because I think a lot of times what comes out for people, and I think this is a really important part of trauma work, is experiencing grief. That trauma really often robs us of parts of our lives. Be that our childhood or be that our ability to feel safe in the world or to feel comfortable in a relationship. Trauma can be a really insidious thief.

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And people often have a lot of grief around that. And that often is one of the things that emerges in psychedelic sessions, which is fine. Again, this is one of those things that people are often avoiding feeling. And if the psychedelic experience allows them access to it, that can be very healing, but it needs to be handled with a lot of care and a lot of caution.

Meagen Gibson

Absolutely. So let's speak about caution. Because psychedelic drugs, for people who haven't recreationally used them or haven't known anyone who's recreationally used them, sounds super scary and illegal. And so let's talk about that context, and I don't want anybody to misinterpret that as us talking about it means that it's free and available all over the place for anyone to do what they choose.

Andrew Penn, NP

Yeah. So it's important to, we're talking about this as if these are available at your local Walgreens, which of course they're not. So these still remain what we call, schedule 1 drugs under the Controlled Substance Act, which means that they are illegal to possess outside of a research context. And that their safety has not been endorsed by the Food and Drug Administration. So the current clinical trials, which I've been working on, are working towards that. We're working towards showing that there's evidence that these drugs, in this particular context, are effective and that they, I mean, no drug is 100% safe, but some drugs you have a better understanding of what the safety issues are than others.

Meagen Gibson

Sorry, I didn't mean to interrupt you, but I'm sure that that also includes the context of manufacturing and control of the substance.

Andrew Penn, NP

So one of the inherent challenges of using a drug that is illegal is that it inherently comes from the black market. And the black market is an unregulated place. And there has been adulteration of drugs and such. And so just starting with safety, when people take a white powder that is supposedly MDMA, they generally don't know where it came from, and they don't know how pure it is, and they don't know if it's contaminated with other substances. And so there's an inherent risk that comes with that.

Of course, there's also the legal risk that comes with just possession, which can be grounds for being charged under the law. And that is its own kind of harm, because if you have a drug possession charge on your record, that's going to create a lot of problems in your life. And so the drug war and prohibition has created its own harms. And arguably the black market is a result of drug prohibition because it creates this underground marketplace, which is not regulated.

What we're looking to do with these studies is to really understand what are the benefits and what are the risks. And if the FDA feels like those are reasonable and on balance then they will approve this as a treatment. But you have to understand that this is probably never going to be a treatment that you go down to your local drugstore to pick up. This is not like a prescription for Zoloft. This is going to be something that is more akin to a surgical procedure. Where if you go in for a colonoscopy or

something, you are given certain drugs in the context of a hospital. And those aren't things that you take at home. And so this will be more akin to that if things go forward, as they seem to be right now.

[00:25:14] Meagen Gibson

What does the timeline look like on that?

Andrew Penn, NP

MDMA for PTSD is in what they call middle, late phase 3. So there's three phases to approving a drug. The FDA requires the phase 3, the large controlled studies. And so the first half of that was published earlier this year. The second half is under way. If everything continues to go well and the effects continue to be as impressive as they were in the first half, probably 2023 for MDMA.

Psilocybin, which I haven't talked much about yet, we're looking at more for major depression, and that's probably a couple of years behind that, it's a little further behind in the research process. So probably looking, maybe 2025 if I had to just spitball it.

Meagen Gibson

Okay. Obviously you're not in control of that, but I love that you spitballed it.

Andrew Penn, NP

Don't quote me.

Meagen Gibson

Exactly. I'm going to hold you accountable.

Andrew Penn, NP

No. There's so many things that slow it down. And certainly COVID didn't help the process because these studies are done in a comfortable little living room-like environment with three people sitting in it. Obviously you can't do that when there's a respiratory disease floating around. We had to put a lot of things on pause for a year.

Meagen Gibson

So as a psychiatric nurse practitioner, what perspective does nursing bring to this whole thing and the environment in which you're practicing?

Andrew Penn, NP

So one of the things that's a really active question is, first of all, if these things are FDA approved, what will the FDA require in terms of a therapeutic container? And this is where it gets a little tricky because the FDA really is a federal agency that is tasked with overseeing the safety and efficacy of drugs, and really doesn't know much about psychotherapy. That's not their wheelhouse. So most drugs are just approved as the drug itself, and then it's up to individual providers to decide whether or not it's appropriate and medically indicated to prescribe that drug.

[00:27:43] Meagen Gibson

Based on the individual.

Andrew Penn, NP

And their clinical judgment and all that.

So the question is, will the FDA mandate the type of therapy that goes into this treatment? And if they do that, will they mandate what type of clinicians can be that therapist, assuming that they do mandate a therapeutic container, will they get into that granular detail of what qualifications will the person need to be a psychiatrist or psychologist or marriage family therapist? We don't know. We don't really know.

But as a nurse, as a nurse practitioner, I'm particularly interested in the perspective of nursing and what nursing brings to this. Because I think nurses are actually very well suited to delivering psychedelic therapy because these are long days, a therapy session day is 6 to 9 hours. It's not a 50 minute session. It's an all day session. And you're with somebody who is potentially in a non-ordinary state of consciousness. So they might be crying, they might be thrashing about, there's all sorts of differences, they might be very silent for many hours. I've seen that happen, too. And that's not all that different from being in an ICU. When you're doing a shift in an ICU...

Meagen Gibson

In an altered state because of other drugs.

Andrew Penn, NP

With people who are, because of their illness, because of their injury are in an altered state of consciousness. But more to the point, nurses are really good at meeting patients where they're at and really holding the care aspect of things. We often get enamored with cure in medicine, and nurses are really more focused on the process of care. When we talk about holding space, that's a popular term. And I always want to ask people, what do you mean by that? What does it mean to hold space?

And there's this very core idea in psychedelic therapy that we have an inner healer. We have an innate capacity to heal. If we can make conditions for that person to heal, they know how to heal.

Florence Nightingale talked about this 150 years ago, that the body knows how to heal, you need to get the wound clean in order for the wound to heal. But we can't make the wound heal. We can make the conditions for the wound to heal. And psychologically I think that is an appropriate metaphor here. Because many of us will experience trauma in our lives. We know that trauma is incredibly common. That's the bad news. Good news is that the vast majority of people who experience trauma actually don't develop PTSD, which I think always surprises people with PTSD because they assume that everyone who experiences trauma gets PTSD. And that's actually not the case.

And so what it tells me is that there is this innate ability to heal. But maybe people with PTSD have not been able to get there. Maybe there's still dirt in the wound, if you will, that needs to be cleaned out in order for that natural healing to occur.

[00:31:11]

And that's really what a lot of what we're doing with psychedelics, and that's a lot of what we're doing in nursing, is we're making the conditions right for the person to get better and for that innate healing, inner healer, if you will, to emerge. That's why I think nursing is really well suited to this.

And people trust nurses. We're with people through childbirth, through death, through that moment that you're in the ER and you're scared because you can't breathe, the nurses are there. And so I think nurses are a natural fit for this work.

Meagen Gibson

You said so much that I loved and agreed with. And one of the things that you touched on was about trauma, what we know about trauma, and so much of, especially what Gabor Mate says about trauma, about how the trauma is not what happened to you, it's what happened after what happened to you, and the way that you were cared for and held and how people reacted to your trauma.

And so I imagine, and you can speak to this much more than I can because you're in these rooms, but in that holding space thing that we're talking about, that having someone being able to go through, having that safety, putting the guard away so that your security is taking a nap, if you will. And being somewhere where security was taking a nap and you're dealing with your trauma and you were safe. And the person that was with you was able to stay in the room with you, literally, and not be reactionary and not be triggered and not make it their own. And all of the things that we accidentally do to exacerbate people's traumatic experiences. That's got to be really powerful. And that's what I think of when I think of holding space.

Andrew Penn, NP

Absolutely. Another therapeutic modality that's been used a lot, particularly with MDMA therapy, is internal family systems. And Dick Schwartz's work with internal family systems and creating that modality, this idea that we have these protector parts, which really you have to get permission of the protector part in order to get into the other stuff. So it's not like we're putting ether over the protector part and knocking it out. It's not like some spy keeper or something like that. It's really that the therapeutic work is so important in order to establish that kind of trust.

And so that's why we put so much time in beforehand in order for people to feel okay to feel whatever comes up. We talk about being trusting, letting go, being open to whatever emerges. And a lot of times in those preparatory psychotherapy sessions, people ask questions like, what if I panic or what if I get really scared? And we say, well, what if you did? Instead of saying, oh, no, that won't happen because the protector part is not buying that. So we say, well, what if you did? Could that be okay? Tara Brach talks about, and this too. Could that be okay? Could it be okay to have a panic attack with us knowing that we will keep you safe, knowing that you're not going to die, you're going to be okay, it's going to be uncomfortable. It might be really miserable for a little while.

I want to be really clear that these psychedelic therapy sessions are not all rainbows and electronic dance music. This is hard work. People come out of these sessions and they are drained, and the therapists are drained, too. Because you would think sitting in a chair for 8 hours in a little room with somebody who's largely silent would not take up that much energy. You're tired when you come out of these sessions. Which is one of the reasons why I think doing this therapy probably won't be for everyone, because some people would actually rather see five people for 50 minutes in a workday

than sit with one person for 8 or 9 hours who might go through a whole range of emotional experiences.

[00:35:40] Meagen Gibson

And if we can get into the weeds on the treatment just a little bit. Let's say a day of treatment, how much of that is the pre-work and how much of that is actually having administered drugs? And then how much of that is the recovery and integration part that you were talking about?

Andrew Penn, NP

So on the MDMA study that I worked on, the phase 3 study, I'm doing this on top of my head, but I believe we had 12 non-drug therapy sessions, and I know we had 3 drug or, because it's a clinical trial, placebo sessions that was randomized and double blinded. So the therapist nor the subject knew if they got the drug or placebo. Although most people tend to know, not surprisingly. Blinding is a real challenge in clinical trials.

Before the first drug session there were three 90 minute sessions of psychotherapy with the same two therapists who were there through the entire process.

And in those sessions we talk about what they're hoping for. And we also encourage people to hold those expectations lightly because there's an adage around psychedelics that they are tricksters. That you don't necessarily get what you want, you get what you need. And so a lot of it is about expectation management and encouraging people to remain open. Because sometimes people come out of these sessions, and this is very common with the anecdotes, is that they thought they were going to go into work on one thing and ended up looking at something totally different. And that was fine. But if they had gone in thinking, this is the thing I must look at, they would end up being disappointed. So we encourage people to be open to whatever emerges.

So then on the day of the actual dosing we usually have a preparation session the day before, immediately the day before. The person tries out our couch. Our lab looks like a little living room. We have soft lights and comfortable furniture, and there's a couch that we make into a daybed on the day of the session so they can lie down.

Meagen Gibson

That's nice. It's not super clinical.

Andrew Penn, NP

No, we really try to go out of our way to make it not look like a hospital.

Meagen Gibson

Yeah.

Andrew Penn, NP

And I like to say it looks like a funky Airbnb.

[00:38:14]

So we have a set of eye shades that people will put on, we do that to encourage them to have inward focus. We tell people your job is not to entertain us. You don't need to talk with us unless you feel compelled to. We will check in with you every hour if you're not talking, just to make sure you're okay.

And we also have music. And music is a really important part of psychedelic therapy. So we have it usually on headphones and available to play in the room. And it's a preset selection of music. It varies in its qualities. It's often expansive and what they call tonal music, which is different things. The older studies tended to use more Western classical music, and in more recent years there's been more of a shift towards Brian Eno type of what might be called ambient music. But it varies. Some of it can be more rousing, especially more percussive, especially when we get towards the peak drug effects, which usually come about 90 minutes to 120 minutes in. We want people to feel a certain amount of energy for the work.

And we encourage people to use the music almost like a current in a stream. So it's like just let the music carry you forward. And that music is often very powerful. People have very strong associations with music. The one subject I'm thinking of actually found similar music and would use it to meditate afterwards because it was so evocative of the feelings that he had during the therapy session.

Meagen Gibson

They made an association with safety.

Andrew Penn, NP

Yeah, exactly and just a conditioned response to openness.

We start early in the morning. Usually somebody comes in at 8 or 9 in the morning. We have them ingest the drug by midmorning typically, and then ask them to settle in. And we're there the whole day, depending on the drug. Both MDMA and psilocybin have a duration of effect of about 5 or 6 hours. And so as the drug begins to wear off, people come back to their more ordinary state of consciousness.

We're taking vital signs throughout the whole process, that's part of our study protocol. If they need to use the bathroom, we walk them to the bathroom, make sure that they're safe, that they don't stumble or anything like that. And then once they're safe to go home, well on the MDMA study they stayed overnight in the lab, and then we would meet with them next morning. In our current study on psilocybin, they go home with a trusted person, and then we meet with them the next day.

And then that after therapy, the integration therapy, is really critical because that's when people really begin to put the experience together. It's a little bit of a misnomer to call it psychedelic-assisted therapy because a lot of times during the drug session they're not actually doing a lot of talking. It can vary. Some people can be fairly chatty, but we often actually encourage people to put their focus more inward and not feel the need to be conversant. And we'll do the talking afterwards. And so we ask people to really attend to their inner world.

And then afterwards we end up having some really interesting conversations about what they experienced, what they felt and how they began to put it together with the rest of their life. This is another thing where it's different than recreational psychedelic use, because a lot of times when people have a psychedelic experience, they chalk it up to like, well, that was interesting, but weird, and I don't know what to do with that. And it just becomes a dinner party story of like, oh, this time in

college when I took acid. Instead of like, oh, this was a really important experience that changed the way I thought about something.

[00:42:02]

And a lot of times what people often will come to a realization is that they have often been very hard on themselves. So there's often an element of self compassion that emerges. And sometimes people also realize how they've also been a participant in their own unhappiness, how they've engaged in patterns which perpetuate maybe a core belief that is actually not beneficial to them anymore.

And so part of the integration therapy is to talk about how they want to do differently in the future?

Meagen Gibson

What are they ready to let go of?

Andrew Penn, NP

Exactly. So there's a lot of that.

And also allowing people to experience grief, as I mentioned before, is often very healing. Many people with trauma are carrying a tremendous amount of grief, and just to allow themselves to feel that is something they often haven't allowed themselves to do before.

Meagen Gibson

Before we wrap up, I want to ask you about what you know about the state of these types of studies worldwide, in other places other than the US?

Andrew Penn, NP

So the psychedelic universe seems to be expanding by the week, especially as different companies have gotten into this. There are two major players in the psilocybin for depression sphere. So the Usona Institute, which is the study I'm working on, is based here in the United States, which is a nonprofit organization trying to bring psilocybin to market at cost. And then Compass Pathways is a British company that is a for profit company that is also engaged in clinical trials for depression. So both of those, if successful, would seek approval, definitely in the US, to the FDA, and in Europe, to the European Medicine Association.

And then MDMA is being sponsored by the Multidisciplinary Association for Psychedelic Studies, or MAPS, which would be applying for approval both in Europe and both Canada and the United States, if successful.

So that's where the research is at. But then there's a lot of other companies looking at novel molecules or looking at these for other indications. So there's a lot of different things emerging.

And then, of course, there's the whole decriminalization movement, which we haven't really talked about. Such as in Oregon there was an initiative passed last year that will move a system forward where people can obtain psilocybin who don't necessarily have a psychiatric disorder.

Palliative care is the other area which we haven't really touched on where psychedelics have, there's been a lot of research looking at, particularly psilocybin at end of life. Could that be something that

helps people with existential distress and anxiety that they may have around a life threatening diagnosis? There were a couple of really important papers that were published in 2016 out of Johns Hopkins and NYU that looked at that very question and found very promising results. And so that's a whole other area is palliative care, where these medicines could probably very well be deployed.

[00:45:31]

So there's a lot happening in the sphere right now, and frankly, it's kind of hard to keep up with all of it but it's very interesting.

Meagen Gibson

And I want to ask you one more question because you said just one thing that I didn't understand, which is a novel molecule, and I just want to circle back. I just need to put a pin in that. What? Excuse me?

Andrew Penn, NP

Sure. So novel molecules would be, basically variations on a theme. So you take a drug, so one that some of the people in the audience might know about would be ketamine. And a newer drug called esketamine. So esketamine is essentially just a variation on ketamine. And it's really not that different from ketamine but it was patentable, and it was approved by the FDA as a treatment for depression.

So a lot of these drugs, they lend themselves to minor substitutions in the molecular structure which would potentially give the drug different effects. There's a very well known chemist, he's passed now, named Alexander Shulgin, Sasha Shulgin, who was really the person who resynthesized MDMA in the early 1970s. He was a famous Dow chemical chemist who had a backyard hobby of tinkering around with drugs like MDMA and tryptamines to see, doing exactly that, substituting one molecule for another and seeing what effects it had by ingesting very small quantities himself to understand the effects of them.

And so there may be compounds out there beyond MDMA and psilocybin that could also have therapeutic effects that are in the same family as those drugs, but that are really not well known or not really yet investigated.

So there's a lot of research interest in this field at this time. This whole idea of really taking something that only needs to be taken once or twice, or that maybe a little too ambitious to think of one and done, but maybe that somebody has this treatment once a year or twice a year or something like that, but doesn't have to take a drug like an antidepressant every day like they do now.

Meagen Gibson

Absolutely fascinating work. Andrew, I'm so thankful for your time. Thank you for joining us today.

Andrew Penn, NP

Thank you for having me. This has been fun.

Meagen Gibson

And if somebody wants to find out more about you or your work, where would they best do that?

Trauma Super Conference, 2021

[00:48:12] Andrew Penn, NP

Yeah. They can go to my website, which is andrewpennnp.com

And also for nurses who are interested in this work, I co-founded an organization called The Organization of Psychedelic and Entheogenic Nurses, which is openurses.org

Meagen Gibson

Fantastic. Thank you so much.

Andrew Penn, NP

Thank you.