



Dr. Jill Carnahan, MD - 00:00

Hey everybody. Welcome to Resiliency Radio, your go to podcast for the most cutting edge insights integrative and functional medicine. I'm your host, Dr. Jill and with each episode we dive into the heart of healing and personal transformation. Join me as we interview medical experts, thought leaders and interesting folks of all types and backgrounds bringing you information to help transform your life and health for optimal performance and longevity. Today you're in for a treat. If you've never heard of ketamine, stay tuned. You're going to learn all about Ketamine and what it might do for you or your loved ones from Dr. Jen. I will introduce her in just a second, but I just want to remind you that if you have just joined us or not been around long, please do take a like or subscribe.



Dr. Jill Carnahan, MD - 00:44

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Dr. Jill Carnahan, MD - 01:26

Again, that's doct jill health.com if you have not yet got a copy of my book Unexpected you can also get that there or really anywhere books are sold. But if you want a personal signed copy you can order from Dr. Jill health.com just put in the shopping cart note who you want me to sign that to and I will personally sign the book and send that off to you. Okay, let's go and introduce our guest. Dr. Jennifer Ellis is a board certified emergency physician who founded Golden Afternoon, a trauma informed ketamine therapy clinic in Los Angeles, California. After burnout during COVID she saw the evidence supporting the efficacy of Ketamine therapy and she shifted her focus to help patients manage treatment resistant depression, anxiety, pain and trauma. Three years later she's helped hundreds of patients and you are going to love this interview.



Dr. Jill Carnahan, MD - 02:12

Let's jump right in with Dr. Jen. Dr. Jen, so nice to meet you here. I've heard wonderful things about you and today we're going to talk about ketamine and I think it's such a great Topic and timely because more and more, even in my clinic, patients are asking, Dr. Jill, what do you think about ketamine? So, guys, if you're listening, stay tuned. If you've never heard of ketamine, you're going to be in for a treat because Dr. Jenna is an expert. Before we dive into ketamine, though, I want to hear just a little bit about your journey into medicine and then into what you're currently doing.



Dr. Jennifer Ellice, MD - 02:45

Absolutely, and thanks for having me. My journey into medicine is a little bit different than how a lot of doctors

ended up. I was not pre med at all in college. I graduated with a history degree. And then I went out in the world in New York and I blundered around a little bit and decided I wanted to go to med school later. So I actually went to med school at the end of my twenties after I worked at a methadone clinic as a counselor for a while. And one day I was taking a break with another coworker and I was complaining about, you know, the fact that a lot of these patients weren't getting the help that I thought that they needed and they were getting overmedicated, not just with methadone, but with other things.



Dr. Jennifer Ellice, MD - 03:24

And one of my counselors looked at me and she said, well, if you're so smart, why don't you go to med school then?



Dr. Jill Carnahan, MD - 03:29

I love it, you think, you know, accepted.



Dr. Jennifer Ellice, MD - 03:33

And I thought, why don't I go to med school? So, so I went and did my pre med courses and went to med school later. And actually I thought about going to school for psychology. I wanted to be a PhD in psychology, but I looked at it and it said seven years to get a PhD and it said four years to go to med school. So I said, you know, wow, I'm not saying this is my brightest decision making, but in any case, I ended up in med school very disillusioned by psychiatry. I wanted to be a psychiatrist. And when I did my rotations, all I could see was that it didn't seem to be the practice didn't seem to be helping people the way I thought I already imagined that it should.



Dr. Jennifer Ellice, MD - 04:10

So I went into emergency medicine instead, where there is a lot of psych. And I had a wonderful career, been a doctor for 20 years. And when Covid happened, I, like a lot of my colleagues, was sort of in a war zone, got a little bit burnt out. And I sort of went back to first principles about why I got into medicine. And I decided after looking at some of the research for ketamine. I thought, this is incredible. I might actually do what I thought could be done when I first wanted to be a doctor. So I went and opened a ketamine clinic with my partner and here we are in California and we're practicing and we're just, actually just blown away by what we're doing for people. So it's been very rewarding.



Dr. Jill Carnahan, MD - 04:52

I cannot wait to dive into this. I've been really looking forward to this interview because like I said, I've had a lot of patients ask me. I know quite a bit about it, but I know I'm going to learn something from you today. One of the

things that you just said I think is so critical and that is our current system of psychiatry is, you know, ICD10s give a label and then with the label usually comes a medication, which we now know with the evidence most of these medications are ineffective, especially the whole, you know, serotonin reuptake inhibitors and that whole thing where they, were like literally taught 20 years ago that people have a serotonin deficiency. And that was based on the marketing, not the science. Right? So.



Dr. Jennifer Ellice, MD - 05:28

Absolutely. And even the folks who are doing the research were saying at the time, well, that's not exactly right. Hold on.



Dr. Jill Carnahan, MD - 05:33

We don't really.



Dr. Jennifer Ellice, MD - 05:34

But everyone just went with it, right? Yeah, absolutely.



Dr. Jill Carnahan, MD - 05:36

Yeah. I mean, I remember in residency, them coming and giving samples and then, and you know, and anyone out there listening who doesn't know how the medical system at least used to work and still isn't that great. The pharmaceuticals really run the education and there is great stuff about our traditional education. I'm not putting the baby out with a bathwater. However, there are limitations and you and I both know I've come to say recently that I think 90 plus percent of psychiatric diagnosis have some organic basis and are not, you know, that people aren't stuck with depression, anxiety, bipolar or mania or any of these symptoms. Because so often I deal with environmental toxic load and infectious disease and inflammation and mast cell activation. And so many of those things that are driving underlying physiology are manifesting in depression, anxiety, mood disorders, et cetera.



Dr. Jill Carnahan, MD - 06:25

And when I fix it, the mood disorder goes away. And I'm sure you're seeing.



Dr. Jennifer Ellice, MD - 06:28

Absolutely, absolutely. And you, to your point, it isn't just like the evil pharmaceutical companies because you know, I, I do share your healthy skepticism for the medications and serotonin reuptake inhibitors, but even when they work and they do help some people, it's not perfect and it comes at great cost and There are a lot of really bad side effects. And in addition, you know, it's more just like these things are so complex and as you correctly pointed out, there's such an interplay between your environment and your body and mind are not separate entities as we know so well. Right. The immune system and your mind are not separate entities. Right.



Dr. Jennifer Ellice, MD - 07:03

So the fact that it's distilled down in that way and we get these models like you don't have enough serotonin is just because it fits a more plausible excuse that you need a pill for this. Right. Or you need this thing and it doesn't mean you don't maybe need medication. I'm definitely not anti medication. But you know, the, the answer is so much more complex than what we're giving patients and it's very frustrating because we're not helping them. Yeah. When we just say, here, take this pill, it's going to better.



Dr. Jill Carnahan, MD - 07:31

I really like that you clarified because I agree. In fact, I have a few patients because I do an integrative, functional, personalized practice. There's a few that come to me and there's some significant psychiatric symptoms that need a professional, need a psychiatrist, need treatment. And some of them are, you know, oh, we can't do drugs. And that's not a good thing either because there is a place and many of my patients come in on a medication and then I still go to root cause, leave them on that. I'm not touching that because they're stable. Right. And then we're working on inflammation and stuff and maybe they go down dose, maybe they don't. But I really like that, really balance.



Dr. Jill Carnahan, MD - 08:03

Because there's some wonderful things about our conventional model and I always feel like our toolbox that were given in medical school is just this big and now we have more options. Right. So it's not that we throw that out, it's just that there's more. So I want to dive into ketamine. But yes, how did that. I love your journey because you could have gone to psychiatry, but instead emergency medicine. I actually think some of the most brilliant, amazing docs that I know that are doing unique things are from that field. Well, how do you think that framed your view? Because you saw everything. I'm sure what just give us a little glimpse into how that life maybe led to you having a more wide ability to diagnose and treat and understand people coming to you now.



Dr. Jennifer Ellice, MD - 08:43

Yeah, Emergency medicine is very interesting. We, we say amongst ourselves, we just do the first 30 minutes of everything. The first 30 minutes of everything, anything that walks through the door, I have to handle. And in some cases, and this is not toot our own horn or to sound arrogant, but it's just the truth. In some cases you have to know more cardiology than the cardiologist because if a patient's dying in front of you and it doesn't fit the textbook, you to figure it out. Right. And so I, what I, what drew me to the specialty and what I love about it is that it draws These sort of MacGyver types in medicine who are like you. Look, I don't, I just want to solve problems.



Dr. Jill Carnahan, MD - 09:14

Yes.



Dr. Jennifer Ellice, MD - 09:15

In the moment. And I know I'm the last resort. Right. And so that to me was a very sort of existentially fulfilling thing to be able to help people sort of in that moment, in that way. But you know, the other beautiful thing about it is you have to learn so much. You just can't stop learning. You have to keep learning because you can take anything that walks through the door. You know, if you, a dermatologist, you are not going to get kidney failure. You're not going to get a weird form of cancer. Right. And we do, we see everything from all, from every part of medicine. You know, patients who get off the plane from Africa and have the most crazy infectious disease to the most run of the mill heart attacks. Right. We see them every different kind of heart attack. Right.



Dr. Jennifer Ellice, MD - 09:54

So it's a really interesting specialty. And I still practice, I still do love emergency medicine, but the psych part was why I did, why I was interested in going to medical school. So this has really helped me kind of fulfill that feeling.



Dr. Jill Carnahan, MD - 10:07

I love that. And from my background, which is family medicine, which is sometimes less respected in the academic realms, but in a way, like you, it's not as acute, but it's. I had to know everything from birth, everything right between. And in the rural setting, sometimes we're the only ones. So I totally get you. Like, I wanted to do that in a way that, and for me it was emergency or family medicine because I wanted to know a little bit about everything and then kind of go deep and make sure that. Because truly it's kind of like say you really are in a, you know, a third world or anywhere else if you're, say. Are you a radiologist? No. Nothing against radiologists, but it might be harder for them to treat cardiac tamponade in the desert.



Dr. Jennifer Ellice, MD - 10:43

Absolutely, absolutely. And family medicine is the same way. I remember staying up late at Night with a family medicine resident from Africa. She was a genius. And she was on, were both getting on the OB rotation and were both getting sort of, you know, maybe not exact likely the most respect from the ob, because weren't going into ob, but she and I, were both like, you know, one of these days we're going to have to deliver a baby in like the back of a truck somewhere in the middle of nowhere. And we're both going to figure out we need to learn this because we're gonna be the last resort. So I have great respect for family medicine.



Dr. Jill Carnahan, MD - 11:12

Oh, I love that same mutual. It's mutual. So you founded Golden Afternoon, which is such a cool name. I get it. It's like really a beautiful, like it's one of those things where you have a word picture and it's like instantly you're like, oh, like I literally looked at your website before you came on. I'm like, oh, that's nice. Like, it's really beautiful.



Dr. Jennifer Ellice, MD - 11:30

Thanks for saying, you know where it's from. A poem, a poem by Lewis Carroll. Because he was talking about the inspiration that led him to write Alice in Wonderland. And it was an afternoon ferry ride with Alice Little and her friend. And he saw the two kids playing and they had this sort of liminal state that he thought was really beautiful. And so he talked about the golden afternoon on that ferry ride. And so that's what inspired.



Dr. Jill Carnahan, MD - 11:51

I knew there was a story. I love it. I love it so much. And I love what we. Some of the most brilliant practitioners and people that are doing things like you, they have this sense of like the other day, well, the, your history major. Right. You have this creativity and other side and then the medical side. Because I think if we just have a very left brain scientific approach, we really be as curious and creative and I think it takes both to solve complex problems. So I can clearly see you bridge the gap there. So let's now dive into ketamine. First of all, let's just talk about what is this drug, this med, is it available to anyone? What do you do? So talk about ketamine and then we'll talk about like what kinds of indications and people might benefit.



Dr. Jennifer Ellice, MD - 12:31

Absolutely. So ketamine is a really interesting medicine because it's one of those medicines that's been around for 50 plus years and we've been using it kind of like, you know how aspirin has been around for 200 years. Right. And we're still learning things about aspirin to this day. So ketamine is synthesized. It doesn't come from any plant or animal. It was synthesized in a lab. And we started using it around the time of the Vietnam War as anesthetic. And actually it's the most widely used anesthetic on the planet, which means EMTs use it, plastic surgeons, dermatologists use it. Right. I trained on using it in children 20 years ago when I was in residency because it's so safe as anesthetic that we can use it in emergency. Like a kid gets a dog bite or something. We have to sew up their face. So.



Dr. Jennifer Ellice, MD - 13:09

But at the end of the 1990s, primarily in veterans, we started to notice and everyone who's used ketamine in an emergency medicine setting, we'll corroborate this, that people sometimes wake up from being anesthetized with ketamine and they seem different in a good way, in a way that seems lighter. And in some cases they seem, we don't ever use the word cured, but they seem farther along in terms of their PTSD or their anxiety or their

depression. It's a very curious thing. And actually I remember noticing it so much so when I was training that I used to love to do it. So when people would, my other colleagues, doctors would have cases where they had to say, you know, relocate someone's hip and give the ketamine, I would volunteer for them and say, listen, I'll do the anesthesia if you want.



Dr. Jennifer Ellice, MD - 13:53

If you want to just help with the hip, which because I loved so much, when patients would wake up, yes, they would be transformed. And it was such an odd thing. And I knew nothing about the literature about this, but at the end of 1990s, people started sort of experimenting and making really good randomized control trials which for the 2000s into, you know, for the 20 years, in the first beginning of the 2000s, we have really great studies. And what it shows is for people who, I'll just take treatment, resistant depression, which means, which is the medical term, as you know, that we use for people who've had depression and we put them on SSRIs and it doesn't really fix the problem. Maybe we've stopped them from killing themselves and they can go to work, but they're really still suffering from the symptoms.



Dr. Jennifer Ellice, MD - 14:34

We call that treatment resistant depression. So for those folks, if they go through a course of ketamine treatments, they will come out. 60 to 80% of them, depending on the study, will come out with long term remission. Of their symptoms, which is as close as we're going to get to saying cure, because we never say that for something that's a chronic illness. But that's really incredible. And as you know, those numbers are way better than SSRIs, SNRIs, and they're even better than therapy, which is very puzzling, right? So folks started saying like, well, how does this work? Because it does act a little bit on the serotonin system, but it doesn't, it's a temporary thing. When you give someone a transfusion of ketamine, it's a temporary release of some serotonin.



Dr. Jennifer Ellice, MD - 15:12

So what's going on here and what the working model now of how this works, and this is similar to other psychedelic medicines like mushrooms, Ayahuasca, LSD, is that it induces something called neuroplasticity. Now you know, but maybe your listeners don't necessarily that neuroplasticity is our word for sort of the moldable way the brain is, the way the brain can change and grow. And when we're children, we're very neuroplastic, right? If you teach a five year old Greek and you teach a 50 year old like me Greek, we both know who's going to be speaking Greek in a year and it's going to be the five year old because their brains are growing and changing and every night when they go to sleep, it's the architecture is changing and the brain's saying, what do we need to know? What do we need to become?



Dr. Jennifer Ellice, MD - 15:52

And it goes and changes. And as we end adolescence, that window sort of closes a bit and you can still change until you're dying breath. But it's a little bit harder to teach an old dog new tricks, right? So what we think is

happening is after each infusion of ketamine for about 24 to 72 hours, you have this burst of neuroplasticity. There's a chemical that's released in your brain, bdnf, Brain derived neurotrophic factor. And it makes your brain grow and change and not in every way. You're not going to necessarily learn how to do math better or be a chess player. But specifically critical social neuroplasticity, we think, and that's neuroplasticity. That has to do with how you relate to the world and your identity and how you feel about yourself and regulate your emotions.



Dr. Jennifer Ellice, MD - 16:30

And so after going through a course of treatment, so it's usually a two to three week course of treatment every few days, folks will have this complete in Some cases remission of their symptoms so they're just not depressed anymore. And it's crazy. I mean, we will have people who have been depressed for 20 plus years and they will say, oh my God, I didn't even realize what it was like to go through the world not feeling like this. Like, I didn't even know how this felt. And now that I know, I'm so sad that I spent 20 years feeling.



Dr. Jill Carnahan, MD - 17:00

Like, hey everybody, Just a quick reminder that if you have not yet seen the documentary doctor Patient Movie, it's now available on Amazon prime or on YouTube or to be. You can go to doctor patientmovie.com for the website for the trailer and for connections to all the sources. Otherwise you can search on Amazon prime for doctor Patient Movie. We put together this labor of love several years ago and it's been very important, impactful for those going through complex chronic illness just wanting to be encouraged on their journey. So please take a peek@doctor patientmovie.com let's get back to Dr. Jen.



Dr. Jennifer Ellice, MD - 17:37

That's right. So it's, it can be very incredible if you happen to be in that 60 to 80% of people for whom it works.




Dr. Jill Carnahan, MD - 17:44

That is so impressive. And like I said, I couldn't wait to talk to you more because I knew you'd have the statistics and experience. So in the media, just like psychedelics, it's been sensationalized and I think sometimes put in a way that isn't very accurate. And I love the fact that you're, you know, reiterating that this has been used a long time and you and I both have seen it in practice, like you said in ERs and everywhere else. So I've had similar experiences as a resident or other places where I've seen it. What kinds of patients benefit the most? Obviously depression is one of them. Is there any contraindications? Is there any class that you would say for sure we would probably not want to use it in the this type of patient?




Dr. Jennifer Ellice, MD - 18:26


Absolutely, yes. So I'll just back up. I just want to address the first part of what you said. It is stigmatized, definitely. And which is so unfortunate. And I sometimes say to my patients, I wish it didn't feel good sometimes to take this medicine because if it didn't, we would not be having this kind of conversation about it being stigmatized. And it doesn't always feel good. And in fact, for my patients for whom it works best, and to answer that question, it's usually people who are suicidal or so depressed or been depressed for so long. Those are the people for whom it works best. For someone who is suicidal, we can turn them around sometimes in 45 minutes, which is I. When I first read this, I did not believe.

 Dr. Jill Carnahan, MD - 19:05


I'm like, wow, that's crazy.

 Dr. Jennifer Ellice, MD - 19:07


But that doesn't happen. You don't take someone who's suicidal. I mean, the psychiatrists have been working on this person for 50 years. You know they're about to commit them. That can't be. I have seen it. It is true. It is replicated in countless randomized control trials, but it's also true. I have seen it. You can take someone who. I've had psychiatrists call me and say, I'm either going to commit this person, call the police on them and commit them, or their. Their deal was I would take them to your clinic and they will walk out of here and they're not suicidal anymore. So that can happen. Doesn't happen for everyone, but it. It can happen. And that is the probably the strongest signal that we see. The second tier of people for whom it is most affected is folks with depression.

 Dr. Jennifer Ellice, MD - 19:43

But we also use it for anxiety, ptsd, chronic pain, some bipolar. With caution, we use it with their polar. Absolute contraindications would be psychosis, mania. And that's because it's only, you know, just like any kind of psychedelic. You don't. You would never give that to somebody who is already divorced from reality, because the side effect of it is that for 40 minutes while we're treating you're gonna be divorced from reality. So we don't obviously give that to folks who. For whom we might make that worse. In case of mania, it is absolutely contraindicated if you're having a manic episode. Absolutely. But if you. Some people, and you may have seen this before, get diagnosed as bipolar and they're not really. Or that diagnosis tends to get overly used. Right. Or they might be. They might. They might have had depression with psychosis.

 Dr. Jennifer Ellice, MD - 20:32

And when I dig into it. What. What was that? Well, when I was in my 20s, I was so depressed, I once thought I heard my name being called in the middle of the night after I was.

 Dr. Jill Carnahan, MD - 20:40

And that.



Dr. Jennifer Ellice, MD - 20:40

And that you're not. But they've never had.



Dr. Jill Carnahan, MD - 20:42

No. Or there was. Never had a break from substances. Right. Because obviously substances of other types could cause cocaine or something.



Dr. Jennifer Ellice, MD - 20:48

Exactly, exactly. So you have to. Right. So you have to dig into that a little bit. But those are the things to avoid. Anybody who's got ketamine also increases your blood pressure and your heart rate transiently. So just for the moments that you're getting the medicine, your heart rate and blood pressure will go up for most people. So anyone who is uncontrolled, hypertension, atrial fibrillation, copd, that's poorly controlled, that kind of thing, you want to use it with caution. It is anesthetic. We are not giving it anesthetic doses, but you want to make sure the person you're going to is very well qualified in handling anesthetics because we are going to drop your level of consciousness a little bit. Right. And so for all those reasons, you want to make sure you've got a good provider.



Dr. Jill Carnahan, MD - 21:27

And the last is the duration while you're getting an infusion, or is it like infusion, and then it lasts for another 45, 60 minutes. What kind of duration do you expect?



Dr. Jennifer Ellice, MD - 21:37

Actually? Ketamine. One of the reasons it's so safe and one of the reasons we use it in emergency settings is because it's very fast on, fast off. So when you're doing a procedure or if you're having to intubate someone or put them in a coma or something like that, if you use ketamine, as soon as you turn it off, it stops working. So that's very safe for medicine. If something's going wrong, you can turn it off and it goes away, unlike some of the other anesthetics. So what happens is you'll come in and you'll get that. If you. There's multiple ways you can get ketamine. You can get it by iv, you can get it in an intramuscular shot in your arm, like an immunization.



Dr. Jennifer Ellice, MD - 22:09

You can, intranasal, you can use an inhaled form of it, and that is covered by insurance for some cases. And we can talk about why that is. And IV isn't. And you can use a lozenge, which isn't as effective. And we can talk about that later if you want to. And all of those forms, you will be in a state of psychedelic, like we call it a journey or a trip, if you will, for the duration of the time that the medicine's acting. And then as soon as you turn off the IV infusion, it starts to wear off. So about 20 minutes or 30 minutes after the infusion shuts off, you're almost completely back to normal. The half life of ketamine is three and a half hours. So three and a half hours afterward, you should be functionally essentially back to normal. Okay.



Dr. Jill Carnahan, MD - 22:49

Oh, that's super helpful. So I'm assuming in your clinic, your patients with IV under observation with a physician. So if you were recommending for someone either coming to your clinic or if they're asking questions about another clinic or whatever else, obviously this should be done with a physician supervision. If it's IV or probably even intramuscular, what would you say? Because I've heard a lot of people doing the, you know, prescribed, but at home intranasal, which is a little different, but maybe give, like here's the best practices of ketamine, of how to use it and who to be supervising it, because I think that's important.



Dr. Jennifer Ellice, MD - 23:18

Okay, so this, this, the simple answer is you should always have a medical professional agree. Okay, that's the simple answer. Yeah, it's actually complicated. A little bit more complicated than that. Because as you remember from pharmacology, the dose poison. Right. So if you have intranasal, but you keep squirting and squirting until you've gotten too much in your system, you could die from that. Right. Even if it's intranasal. So just being intranasal doesn't make it safer. If you have iv, you could have such a low dose that it's lower than functionally, like an intranasal dose. So the dose is really important. In our clinic, myself or my nurse practitioners are with patients for IV or Spravato, which is the inhaled form you want to have. And my nurse practitioners are ICU or ER trained. So they are very well versed first in anesthesia.



Dr. Jennifer Ellice, MD - 24:04

If you are going. A lot of clinics, though, do not have that level. So I would say to someone, if you're going to an iv, you're going to get an iv, make sure at least you have someone you trust, a nurse, at least a nurse there. My personal preference would be to have a physician or a nurse practitioner, a mid level, you know, assistant. But there are guidelines from the, you know, various professional societies, but there are, there isn't a real standard of care around that. I think whenever you're lowering your consciousness and you're being sedated, you really want to have the professionals that you trust. The other issue is, and this is the part where we, and we should talk about. This part is the psychedelic journey part. And that requires that you feel safe.



Dr. Jennifer Ellice, MD - 24:47

Set and setting is very important for the psychedelic journey. If you don't feel safe, you won't work with the medicine as well, and it won't work as well. And I have seen this too. So you need to feel safe completely and that is super important.



Dr. Jill Carnahan, MD - 25:01

I really love that last part because again, I am not the expert in ketamine, but certainly because patients have asked me. We have several places around here. And now that I know you, I'm going to refer people to your way too. But having said that, one thing I'm always saying, and I love your comment on this and correct me if I'm wrong, you need to have a relationship or some container where you're doing this with a practitioner or provider number one that is safe. Because anytime you bring up these things, whichever psychedelic you're using is so crucial. Because if someone just on their own or without a safe place, I think it can. It's almost like titration, right? The titration of the trauma. And so if it's in that safe and feel safe for them to process or before and after.



Dr. Jill Carnahan, MD - 25:40

Do you have any therapist available or anything like that in your clinic? Tell me about that.



Dr. Jennifer Ellice, MD - 25:45

So here's the thing about therapy that's fascinating and I'm going to lead with this, even though I don't. I'm not pooing on therapists at all. I love that. But we work with therapists. We have therapists who come in with our patients. But the fascinating thing is when you look at the literature, it doesn't seem to make a difference if you're having therapy while you're getting it or not. Which is really interesting.



Dr. Jill Carnahan, MD - 26:04

The brain change, right? It's. That's what's really cool, is as long as you have a safe place and the dose is appropriate, it's really the internal transition.



Dr. Jennifer Ellice, MD - 26:12

You're changing your architecture. Actually, when we look at animal studies, we see that depressed animals seem to have these parts of their brains where the neurological neurons are shorter and after ketamine therapy, the neurons grow back. So we're really regrowing the parts of your brain that you need. We're re architecting your brain. And when we do that, it doesn't seem to make a difference in the outcomes. Now having said that, I feel like I'm always qualifying, but having said that, I do actually believe that therapy is really super helpful because. And this is the part where it's less medicine and more maybe mystical or spiritual or magical or whatever you want to call it,

but during the actual trip or journey while you're under the influence of the medicine, what's happening is we're turning off the default mode network in your brain.



Dr. Jennifer Ellice, MD - 26:51

So the part of your brain that's a boss that tells you what's Real that's telling you right now that there's a chair under your butt and that you're listening to this doctor on that. Right, that part. We're going to duct tape her and throw her in the corner for 40 minutes during the infusion, and she's going to fight back a little bit. But while she's contained, the rest of your brain is suddenly allowed to talk to itself in ways that it's not allowed to talk. Different regions are allowed to talk to themselves in ways that don't typically happen. And when you look at people in functional MRI machines while they're getting psychedelic medications, you see that the pattern of interaction looks less hierarchical and more like a dream catcher, more like a cobweb. And that's because there's these random things happening.



Dr. Jennifer Ellice, MD - 27:27

And during that, when that happens, some people will have these incredible insights. They will suddenly understand all the decisions that their parents made and understand them in a way and feel them in a way that they never did. And suddenly they have compassion to their abuser. They will talk to dead loved ones. They will speak to God. They will see their younger self. They will see their future children. I mean, the things that people, the ways in which their mind can. Can be opened and released to them and become available to them are infinite and really amazing. And so that part of it is kind of sacred in a way. And it's sacred in a way that medicine doesn't really support. Right. We don't have great language for that. We don't have great ways to support that.



Dr. Jennifer Ellice, MD - 28:07

But I feel, and I have seen that if you can facilitate that's when you get these kinds of miraculous outcomes that people are so evangelical about. And if you talk to anyone who's been cured with, or long term remission with their psychedelic medications or with ketamine, they will be very evangelical about it. They will want everyone to do it, and they will because they've had these incredible connections and insights. So supporting and feeling safe enough to have that kind of insight is very important, I think. So when you're choosing a clinic, you want to think about that if it's possible to ahead of time.



Dr. Jill Carnahan, MD - 28:38

I really love us talking about that because like I said in the beginning, we have this left brain, you know, very analytical part of science that we've been taught in medicine that's so appropriate. But I think when we bring in this other side of, like, what else is possible, we don't maybe know exactly what's happening and be curious about the observations that we see in Science. Right. That's where the magic happens, even for us as clinicians bringing new things to the world. Because the truth is, every scientific discovery starts with this curiosity of like, huh, that's interesting. That doesn't make sense. But I wonder what's happening. And it makes so much sense that we're turning up. I always call that the judge. Right. The judge is the default mode.



Dr. Jill Carnahan, MD - 29:14

Networks always telling us, you know, dialogue, and it's usually got the old records of you're not good enough, whatever kind of thing there. And so it makes so much sense when you describe it that way, like turning. Shutting up the judge and letting our. Our little girl self or our, you know, our more pure form of ourselves kind of like just be and just be with itself and really discover maybe new. And what I love is about.



Dr. Jill Carnahan, MD - 29:36

I mean, psilocybin also has studies, and it sounds like ketamine as well, of these neuroplastic effects, which is phenomenally interesting to me because I think the more that we maybe don't understand the whole depth of it, but I think we're just on to something that's going to start to transform the way we think, the way we process and like you said, the way we do therapy. And there's a both and right for that, right?



Dr. Jennifer Ellice, MD - 29:59

Right, Absolutely. I mean, one of the most interesting things that I've seen from doing this hundreds and hundreds of times is a sense of awe that psychedelic medicine can inspire, you know, and we don't. I remember going to look it up after seeing this a few times, like, why does this seem so important? What is awe? Do we have pathways for awe? I was never learned. Taught that in medical school. Like, when you look up at the Milky Way and you're like, whoa. Yeah, that's incredible. Right? It feels so healing.



Dr. Jill Carnahan, MD - 30:21

Yes, yes.




Dr. Jennifer Ellice, MD - 30:22

But we never learned about how that works. What's the receptor for? All right. And you know what's interesting is there isn't much research, and there is a little bit now it's starting, but there isn't a whole lot of research on it. But one of the first signs that I'll see that it's starting to work is that patients will come out of the session and they will have had a profound sense of awe over existence, over their life, over humanity, connection, love, whatever it is. But that's when I usually know, oh, this is going to work.




Dr. Jill Carnahan, MD - 30:47


Wow. So cool. Wow. There's my all.

 Dr. Jennifer Ellice, MD - 30:49


Yeah, yeah.

 Dr. Jill Carnahan, MD - 30:51


Because I'm like, this is so cool.

 Dr. Jennifer Ellice, MD - 30:53


Well, which seems really healthy, by the way. If you lead A life with a lot of wow, that's. I think that's cool.

 Dr. Jill Carnahan, MD - 30:59


Oh, gosh. I have so many questions. I want to talk about the nasal. This, you called it spirit. Esperavo. Spravato.

 Dr. Jennifer Ellice, MD - 31:05

Spravato. Yeah.

 Dr. Jill Carnahan, MD - 31:06

Yeah. So I want to talk about that. No indications. And then after that maybe you can share a story or two of like where you would sell something that you're just like, you know, again, I love this dichotomy of. We go into medicine and I think especially as women, because it's a very masculine, goal oriented, driven, energetic field. Nothing wrong with that. However, I am finding women like you and I that have that curiosity and that awe and that wonder and that ability to bring the right brain in. I think we're getting better results because. And men too. But I'm just saying I think women naturally bring that feminine, more curious, more right brained, creative side sometimes. And when we combine those, that's where medicine is going to be transformed.

 Dr. Jill Carnahan, MD - 31:43

So let's talk about the inhaler and are the nasal and then we'll talk about maybe a story or two that you've seen.



Dr. Jennifer Ellice, MD - 31:48

Absolutely, absolutely. Totally agree with you. So the intranasal story is an interesting one. So as you know, it takes about \$2 billion to get something through the FDA approval process, right? And ketamine's generic been around for 50 years. So nobody's going to pay to do that if they can't make a big buck off of it. Right? Because \$2 billion is a lot of money to get something FDA approved. Right? So when something's FDA approved, that means that you can use it for that indication. The insurance companies will then pay for it. But there are lots of examples of things that are not FDA approved that we know we use off label all the time. So for example, if you prescribe birth control pills for acne or migraines, right, that's not FDA approved. That's off label use. Okay?



Dr. Jennifer Ellice, MD - 32:26

Even morphine was only FDA approved like in the 2000s. So we've been using it for hundreds of years and it wasn't. So what Johnson did is they said, well, ketamine's generic, so we can't make money off of that. But what if we changed the chemistry of it a little bit, patented that and then we'll send it through the FDA approval process to get that approved. So what they did is they took the two enantiomers. I don't know if you remember that from. But when there's a mirror images of a Molecule. So it's the same molecule, but they're mirror images of each other. And that's most. Most of biology works like that. They took one of those enantiomers out. They took the R enantiomer out, and they have left. Left the S enantiomer in.



Dr. Jennifer Ellice, MD - 33:02

So that's a kind of ketamine, where it's only sort of like half of the molecules. They marketed that as S ketamine for the S right enantiomer, and they pushed that through the FDA approval. They got it approved. And that is an intranasal form that insurance does cover for people who have. Depending on the insurance, but you usually have to prove that you failed multiple SSRIs before they will let you use it. And so you will come in and you'll sit in a chair, and you give yourself some nasal sprays. Depending on what your dose is, a few sprays, usually two or three or four sprays. And then you just sort of sit there and listen to music and you go through the journey like you would. For IV indication.



Dr. Jennifer Ellice, MD - 33:39

It is slightly less invasive than an IV because you don't have to have the iv. The doses are lower than what you would get for iv, but it works very well. And so that is an option for folks who can, because the IV is generally much more expensive.



Dr. Jill Carnahan, MD - 33:52

Okay, that's really nice to know. And so then patient stories. I'm sure you have a thousand, but maybe like one or two that come to mind when you think about, like, you were just really, you know, amazed or you saw something unique about the resilience or this story when they came out. Anything at all that you want to share?



Dr. Jennifer Ellice, MD - 34:09

Oh, my gosh. I have. I have so many. And I also have a file of really weird things that I can't explain that people have seen, which I also love talking about. But my favorite story is a patient who came to me. She was almost 80. I think she was 78 years old. She had been, when she was younger, in and out of psychiatric hospitals back in the 70s, you know, like, when you would stay for like a year. She had been depressed her whole life. She tried every single medication known to man. Had been suicidal, had substance abuse in the 70s. And when she came to me, she was this beautiful woman, long gray hair, just such a cool, like, just such a resilient human being. Had lived in really interesting lives.



Dr. Jennifer Ellice, MD - 34:47

Wife was an artist, and she was just starting to date again. So she had not been on the market for 20 years or so, and she decided she wanted to date again. And she said to herself, I'm getting old. I'm gonna die soon. I wanna. I want to get rid of this depression on my back that's been holding me for so long. We did our sessions and around about the third session, she told me about a journey she had where she was suddenly inside the eyes, behind the eyes, in the head of a dog that she once owned like 20 years ago that she had loved like her favorite dog, her best dog. She still has the picture like on her masterpiece of this dog. And she loved this dog unconditionally.



Dr. Jennifer Ellice, MD - 35:24


And the dog was running up to her in her old rocking chair that she used to sit in. And she could see herself through the dog's eyes. And she felt the love, the unconditional love that the dog had for her. And she had this terrible self esteem, had never felt love for herself. She just. She said I was. I am unlovable. That's the only truth that I have ever really known is that I am unlovable. She felt what it felt like for that dog to love her. And it didn't. She didn't say. It was as if. She said I was the dog. And I felt. And she shared with me that love she had. The dog jumps into her lap, but she's in the dog's mind and licks her face.




Dr. Jennifer Ellice, MD - 35:58

And she woke up and she had tears streaming down her face and she said, I am lovable. I am so lovable. And she basically had never felt that. And the thing is that she'd been in therapy for like, longer than I've been alive,


probably. And she knew that was an irrational thought, odd, but she'd never felt it. Right. And when you feel it's different from knowing it rationally. And that really changed her. She. She was better. And you know, like she. She actually traveled to see me. And when she left, she was lighter and it hasn't come back, so.

 Dr. Jill Carnahan, MD - 36:30


Wow.

 Dr. Jennifer Ellice, MD - 36:31


Yeah, that's one of my favorite stories.

 Dr. Jill Carnahan, MD - 36:32


I love that I could talk all day about something. You're gonna make me cry. Because I can just see how. I mean, so many people, really, it's a very basic wound. I'm not lovable, I'm not enough, whatever kind of thing. And it often comes from stories from either ancestral trauma, abuse.

 Dr. Jennifer Ellice, MD - 36:46

She had abuse. Yep.

 Dr. Jill Carnahan, MD - 36:48

So I can see that. And, and it's so relevant because many of us, I would say most people out there have either owned animal or experience this. Such a pure, unconditional love that most pets have to their humans and it's really profound. I mean, when I lost. I had two dogs for 17 years and they were precious to me. And when I lost them, I always said, I think I grieved it more than any human. And I was impressed.

 Dr. Jennifer Ellice, MD - 37:10

Yeah.



Dr. Jill Carnahan, MD - 37:11

But the bond is such a beautiful, precious, pure, that when you describe that, I can see how that piece of her like feeling what it was like to be this unconditional love. And there's really, even in my clinic now where I don't do ketamine, unconditional love. There's nothing more powerful than unconditional love. So that is. Yeah.



Dr. Jennifer Ellice, MD - 37:29

And if you, and if you could feel how some being could love you like that, if you could feel it in your heart, in your bones. Bones, that would change you, right?



Dr. Jill Carnahan, MD - 37:36

Oh, so much. And you know, you alluded to something else that in CBT or most therapies that are not somatic experiencing types of things, we can talk all day long. In fact, they often say about addicts and anonymous, you know, different groups like aa, they can know they might be the most experts on what's going on, but if they don't have an experiential transformation, it doesn't really stick. So that's another great example. Oh, this is so fascinating.



Dr. Jennifer Ellice, MD - 38:02

So I mean, what you're saying is also just to go back, not to make this a female thing, but I think we're as women, we are taught earlier on to be able to negotiate the fact that emotions and rational thought are not opposite things. They're not in opposition. Emotion is just a different way of knowing something. Right. And it's not in opposition to this sort of like, you know, we think like left brain, right brain, but, but it's just a different kind of knowledge that's been undervalued, I think, in the modern sort of world, and especially in modern Western medicine. But emotion is a kind of knowledge. It is a way of knowing the world. Right. And so to give someone that knowledge, I mean, she, the way she interpreted was her dog had come back from heaven and given her this gift.



Dr. Jennifer Ellice, MD - 38:40

I don't know that I interpreted that way. But, but regardless, right. It was a gift and it changed her profoundly.



Dr. Jill Carnahan, MD - 38:46

Wow. If you don't mind, I would love to ask just a little personal. I mean, you've witnessed all this and I think sometimes as we witness, we change and we grow. And if you Google back 20, 30 years to yourself at the

beginning of medical school, what things have transformed you, experiencing the healing of your patients in this journey?



Dr. Jennifer Ellice, MD - 39:04

Well, you know, I think one of the things that was really that drew me to emergency medicine was a feeling that there was just so much suffering in the world. There's just so much suffering. And a lot of times I would get, when I was younger, just so frustrated with the system that we as humans have put in place. They seem to be like, making the suffering worse and not making it better. And when I was young and naive, I just thought, this is so stupid. Like, some of these things are stupid. Why do we keep perpetuating this pain and the suffering? And what was simple about emergency medicine was that it just was so simple. You just show up and stop suffering, right? You just stop suffering. Like, even if that just means giving morphine to someone who's dying, right.



Dr. Jennifer Ellice, MD - 39:47

But you just show up and you just clean up your little corner of the world and that's it. And that seemed to me at the time to be the best that I could do. Right. And I still feel like. I still feel like if at the end of the day I could just clean up a little corner and just take a little bit of suffering away, then I can go to bed at night, Right? Yeah.



Dr. Jill Carnahan, MD - 40:07

That's beautiful and so true. Because it is really like each little part in the world that we do makes a difference. And clearly you are making a huge difference in your corner of the world.



Dr. Jennifer Ellice, MD - 40:16

Oh, I hope so.



Dr. Jill Carnahan, MD - 40:17

Yeah. Last little bit. And then I want to make sure people know where to find your clinic. But what do you think is the biggest? So someone out there might be listening. They're like, oh, this is interesting. Maybe I could benefit. Maybe my mother, maybe my son. You know, they're thinking of people right now. And yet, like you said, there's some nuances around ketamine or stigma. What would be the advice that you'd give someone who is just thinking, maybe this would be a good thing for me. What would be the next steps for them if they're curious?

Dr. Jennifer Ellice, MD - 40:47



Well, it depends on how facile they are with doing their own quote unquote research. But you, there is a lot out there that you can read about it, right? It's not. This is not an alternative thing. This is not a woo thing. There's a lot of good established science out there. So if that will help you be more comfortable with it, then go look at that, because the studies are there and that's comforting to me. But I would say there are some sort of stigmatized parts of this. You know, two very famous people who are advocates or who use ketamine are Elon Musk and the actor from Friends. Right. So. Right. And they maybe haven't given it the best image or reputation.



Dr. Jennifer Ellice, MD - 41:25

So just to look at the outcomes that you see if you are comfortable with doing that research and see that it can help people. And for folks who are, you know, I have a lot of patients who come to me who say, I've seen the science on this. The reason I haven't done it is because I don't want a shaman in a bare skin rug to be treating me. That actually is not the one I'm looking for. You know, I've treated people who are devout Christians who are, who have never even had a drink of beer before, like, so people from all walks who are not comfortable with the psychedelic part. And I would say to you, if the science convinces you at all, then definitely look at that. Because, because it is very convincing.



Dr. Jennifer Ellice, MD - 41:59

And if you are comfortable with the psychedelic part, then the beauty of doing this is that you are being observed by a medical professional. So you're not in a jungle somewhere, you know, vomiting, doing losca for 12 hours. And, and I think for some people that's also very comforting. But the outcomes speak the loudest and that's what I'm sort of leading with, with my patients.



Dr. Jill Carnahan, MD - 42:18

I couldn't agree more because there is a lot of evidence and I think it'll just continue to grow. So if people want to know more about you or your clinic, where is the best place to find you, they.



Dr. Jennifer Ellice, MD - 42:28

Can come to our website. Obviously we're at Golden Afternoon Clinic or they can call us. We're in Santa Monica, which is in Los Angeles. I do have people who come to us from all over the country and from other countries, too. Santa Monica is a beautiful place. So, you know, it's not a terrible trip if you have to make it, but there are also Academy clinics probably in every major city. So do your research, but find a place where you feel safe and comfortable and don't be afraid.



Dr. Jill Carnahan, MD - 42:53

Awesome. Well, Dr. Jen, thank you for making your corner of the world brighter and healthier and bringing this therapy there and for people all over. And thanks today for coming on and sharing this information.



Dr. Jennifer Ellice, MD - 43:06

Oh, thank you so much for having me. It's been a pleasure.



Dr. Jill Carnahan, MD - 43:08

Hey, everybody. Hope you enjoyed that great episode with Dr. Jen Ellis from Golden Afternoon Clinic in Santa Monica. I found it fascinating to learn a little bit more about ketamine and the potential that it has for those with resistant depression or other symptoms and I hope you enjoyed it. Just remember, if you have not yet hit the subscribe button or the bell to be notified of future episodes, you can click that below. If you on YouTube, if you're on any of the other channels like Spotify or itunes or wherever you listen to podcast, please do like and subscribe. It helps us reach more people. You can always reach me as well in the comments if you have ideas for new guest for the show. And just stay tuned because every week we'll be releasing a new episode and I'll see you next week.