Episode 233: The Limits of Mind Body Medicine for Migraine

Lindsay Weitzel, PhD:
Hello everyone, and welcome to HeadWise, the videocast and podcast of the National Headache Foundation. I'm Dr. Lindsay Weitzel. I'm the founder of MigraineNation, and I have a history of chronic and daily migraine that began at the age of four. I am super excited to be here today with Dr. Elizabeth Seng. Hello, Dr. Seng, how are you?

Elizabeth Seng, PhD:
I'm doing well, Dr. Weitzel. How are you?

Lindsay Weitzel, PhD:
I am good. Dr. Seng is an associate professor of psychology at the Ferkauf Graduate School of Psychology at Yeshiva University. Dr. Seng is also a widely published author in the field of headache psychology. She's also just an awesome person and I love her, and we are lucky to have her here today.

Our episode today was inspired by a recent encounter I had with a high school aged individual who told me that they learned in their psychology course that all migraine and chronic pain could be cured through various mind-body approaches. And I found this so interesting as someone who uses so many different mind-body approaches in my rock wall of strategies against my chronic pain and my chronic migraine. And so, I brought it up to Dr. Seng and I wanted her to talk to us about this because essentially, the way she worded it to me is this is one of the roots of stigma, is that people don't understand that perhaps not everyone can just think their way better. So, this is our topic today, and I want to hear absolutely everything Dr. Seng has to say about it. I'm just going to hand it over to you with that introduction Dr. Seng.

Elizabeth Seng, PhD:
I love it because this is one of my favorite things to talk about, so I am so glad that we're going to have this conversation. It's such a problem for me as a health psychologist and a pain psychologist and a headache psychologist, somebody who spent my whole life thinking about how behavior changes the brain and how those changes can be harnessed to improve migraine disease as well as other painful conditions.

And there are a lot of things that changing our behavior can absolutely do. One of the things that I think we need to set out as a parameter is defining what mind-body is. So, at the end of the day, our mind and our brain are the same thing to me. I recognize that philosophers are going to have a different perspective. But I'm not a philosopher. I'm just a psychologist. And from my perspective, when we're talking about the brain, we're talking about the brain, and we're talking about the brain. And when you think you're changing cognitive pathways in your frontal lobe and when you sleep, there are things going on in your reticular formation and your hypothalamus. And when you eat, there are things happening in your satiety center. And when you have pain, there are things happening in your trigeminal system. It's all happening in the brain. So, we're talking about an organ, and we're talking about an organ that regulates pretty much every aspect of our experience, and which pretty much

everything we do in life changes in some way. When we get a better night's sleep, it changes our brain in ways that are different than if we get a poor night's sleep.

When we decide to exercise every day, our brain looks different and behaves differently than if we don't exercise every day. And if we take a selective serotonin reuptake inhibitor, it changes the way that we think cognitively. It's changing things going on in our frontal lobe and gives us better access potentially to a wider array of cognitions if we're somebody who's struggling with depression, say, which is something that those drugs treat.

So, at the end of the day, we're just talking about the brain. And the question is, is it possible that there are people for whom non-drug approaches can produce all the changes of the brain necessary to treat their migraine disease. That's one of the questions. And it just really it really depends. It really depends on what's going on with somebody's migraine disease and how dysregulated their migraine threshold is. It's also though at the end of the day, not actually about, like if this was the conversation that we were having, none of this would have to do with stigma at all. If the conversation we were having was, well, can some people get a routine sleep schedule just through changing their behavior. Do other people need melatonin. Do other people need one of these Z-drugs. The answer for anybody would be well, yeah, some people are able to get to sleep better just by changing their behavior. Some people need the boost of melatonin, and some people need Z-drugs.

And we all recognize that they all work through kind of similar pathways. At the end of the day, we're all getting better sleep. The problem is not that in order to treat migraine disease, that for some people keeping a really, really consistent lifestyle and getting really, really better sleep and eating healthy small meals and not skipping meals anymore, cutting out caffeine, that for some people that just really reduces a lot of their migraine symptoms. Sure, absolutely.

For some people that may be reducing their symptoms as much as a medication. Yes. In fact, we probably think they're working on similar pathways. We're just getting at it through two different ways. If that was the only conversation, well then it wouldn't be such a problem. But that's not the conversation because people feel like, well, if you can treat it through changing your sleep and changing your diet and changing your exercise, or changing the way that you think, then the disease itself must be your fault.

It's really more about control. It's a question of control. And so, for my mind, where the conversation about mind-body medicine and psychological treatments and behavioral treatments of all stripes for migraine just goes off the rails is when we take it this extra step further where well because exercise or diet or cognitions or whatever can make migraine better, migraine must not be real. It must be all in your head. It must be something you are doing to yourself and something under your control. Which we don't think is true at all. Which we don't think is true at all.

So, in one of our early studies, one of the very first studies that I ever did in migraine land, was with my mentor Ken Holroyd. And we've replicated this in every single study that we've ever looked at this construct. We looked at the idea of control and whether people with migraines feel like they're in control of their disease. And from like a behavior change perspective, we want people to feel like they're in control and they have stuff they can do, and it'll make them feel better. Right? That seems like a good thing. But what we have found consistently, every time we've asked the question is that people who have migraine who feel like they are more in control of their disease, have worse disease and

worse functioning and more disability. Because it turns out that if you're the one who controls your migraine disease and you're still having migraine symptoms, you must be doing something wrong.

Lindsay Weitzel, PhD:
You are blaming yourself.

Elizabeth Seng, PhD:
Yes, yes. So, I wonder, as somebody who's so steeped in the patient advocacy community, how often you kind of see that playing out among people who are so keen about the behavior change pieces. I worry when patients come to me and they say, well I don't want to take any of these nasty drugs because I don't want them to change my brain. And I'm looking at them thinking, oh, but the things that I'm doing with you, the thoughts, the exercise, change in your sleep schedule, like the goal is to change your brain. We're all trying to change your brain in different ways. And if we can give your brain a boost with some drugs or some neuromodulation, like, gosh, let's try it. I do wonder if that's a phenomenon you've seen.

Lindsay Weitzel, PhD:
Yes, not only have I seen it, the first thing I was going to jump to a different thing. But to answer your question, I'm thinking of my son when you say that because I automatically, even being steeped in the advocacy community, when I go to pick up my son because of his migraine symptoms, I feel like I need to give everyone a reason for why he was bad that day. Why is he feeling so terrible. Oh, he rode his bike and didn't drink enough water or whatever. But the fact is, when you're someone like me, who essentially was born this way and, in all truth my first memory is a migraine swinging in a swing in preschool. And in my mind, I think of all these behavioral things as my pain is worse if I don't, not, oh, I will get a migraine attack if I don't do this. So, someone like me, it's pretty easy for me to think of these things as not the cause of my problem, but I will just be worse. And so, I don't really blame myself. I just see them as helpful hints, not as the cause of my problem.

So, to me, I always wonder, if someone actually thinks of their neck, they have to go to a chiropractor a lot or something like that as being one of the main causes. If you thought you maybe had a structural problem, you wouldn't think that way anymore, right?

Elizabeth Seng, PhD:
Exactly, exactly. Or when people who have migraine that either initiated or really worsened after like an infection or a surgery or a head injury, they don't often have this kind of self-blame piece. But how many of us who are parents when our child has a migraine at school, a migraine attack at school, how many of us have the experience of asking your kid, well, what did you do today? Well, how much water did you drink? And by asking those questions and giving them this full rundown of like, well, what did you do that caused this attack today, it's ignoring the reality that this is a neurological disease with strong genetic determinants.

It's a disease that you have. You're going to have attacks sometimes. Sometimes those attacks might have been associated with precipitants that you might have been able to modify if you had had forewarning, but you also might have just had a migraine attack today, regardless of how good you

were about it. This is a disease that you're living with. And lifestyle changes can help raise that threshold so that you don't experience symptoms quite as often or quite as severe. But it's not the lack of lifestyle symptoms didn't cause you to have migraine disease. And you didn't make the attack happen. It was happening.

A lot of times doctors will send me young women, like 20s, 30s, and the woman has this narrative in her head that she's bad at managing stress, and that's why she has migraine. And it's interesting because there's just this stigmatizing perception that a lot of young women have that well, if I was just better at managing stress, I would never have gotten this migraine, and it's because I'm bad at managing stress that I have this migraine disease.

Now, do adverse child events childhood events increase the likelihood of experiencing migraine disease? Sure. Do highly stressful periods of your life are those times when migraine disease often initially presents or worsens? Absolutely. When you screw up your entire HPA [hypothalamic-pituitary-adrenal] axis neurobiological stress management system, yeah, that does seem to be associated with migraine disease.

The thing is that people with migraine, in my clinical experience, they're amazing stress managers because they know how bad it can get if they don't manage their stress well. So, I'm often talking to these women who say, oh, I'm bad at managing stress. And that's why I have migraine disease. And I say, well, what do you do? And they're describing to me, oh, I exercise, I listen to my relaxation or meditation tapes. I go to wellness retreats. They're telling me all these amazing stress management things that they do. I ask them about cognitive restructuring. They're like, oh yeah, I always say it's not that big of a deal. They have all these great cognitions. And I'm like, well, tell me what's going on in their life. And then they tell me all the horrible things that are happening. And I'm like, well, you're great at managing stress. You just have a lot of stuff that's happened to you.

It's not your fault. It's just not your fault. The disease isn't your fault. And to the extent to which when people say, you can just cure migraine using mind-body techniques, not only is it naive, but it also makes people feel like, well, if I still have migraine, this is my fault. I'm doing this wrong somehow. And that's just unhelpful. It's unhelpful and untrue from the start to the end.

Lindsay Weitzel, PhD:
What do you think Dr. Seng, about this idea that, this is what I always notice, it's not just lifestyle changes, things you can do as far as exercise or yoga or whatever, but I feel that when psychological techniques or cognitive techniques are presented, or even when people talk about seeing a pain psychologist, it is always presented in the window of you have failed at this in some way psychologically. You are anxious or depressed clearly, even if you're not. And you have failed at some sort of mentality or a psychological technique in some way, and therefore you have migraine. As opposed to, perhaps the other way around, if you know what I mean. Can you comment on that?

Elizabeth Seng, PhD:
Yeah, I have a slide on it that I give to all my doctors, and I call this the stigma of the referral. So, when somebody with migraine goes to a neurologist or doctor of any type, they know that they're talking to someone or they hope that they're talking to someone who thinks they have a medical problem and will give them medical answers. When that person then sends them to a psychologist, even among the

best doctors and the best intentioned of patients, it can sound like this problem is all in your head. And again, you said this earlier, and I think it's so bad and pernicious, I want to repeat it, that you can think this away.

And I always tell my providers make it really clear that that's not what you think, that this is a biological disease. This is a neurologic disease. You have it because it's largely genetic. But there are pieces of managing the disease that it can be very, very helpful to talk to a psychologist who can help give you strategies and can help reduce how disabled you are by the symptoms.

That's how I think about what psychologists are doing in CBT for migraine. I also want though, to push it a little bit further and pull back the veil on what we think the mechanisms of treatment are. So, I do not think that by changing the way you think about migraine, that it directly impacts any symptoms at all. It's not like you think differently and magic happens since you have fewer migraine attacks or they're not as severe.

There are a couple things that we think are happening. I think the most important thing, which is why I study this, from my two cents, the most important thing that cognitive change does... So, this is when you change your thinking. An example. You wake up late, you skipped breakfast, you're late on your way to work, and you have a presentation. You could either think, oh my god, this is going to be the worst day ever. I'm definitely going to get a migraine. I am going to screw up the presentation, I'm going to fail. My boss is going to fire me. I'm going to end up without a job without any health insurance. How am I going to pay for these migraine treatments if I don't have insurance. Right? That way of thinking leads to behaviors that impact biology.

So, it leads you to rush and not get a snack or have any water when you get to work. It leads you to be aroused, to be anxious, to have sympathetic arousal in your body, which is also not great for migraine. You aren't paying attention to your symptoms, so when the migraine attack comes, you don't notice it as early. You don't take your medication as early. By the time you notice the symptoms, you're having a full-blown migraine attack. It's the middle of your presentation. You do have to go home. You do end up in bed, and it feels a little bit like your worst fears have come true.

If instead you think, oh my goodness, I am running late, but I'm going to take the extra five minutes to make sure that I get a protein bar and a big glass of water. I also know that since I overslept and I'm not eating my normal breakfast, I might have a migraine attack. Where's my triptan. Okay, it's in my pocket. We're going to make sure we have this thing. Also, I'm going to make sure that I pay attention to my symptoms so that I can take it right away. If I can at least get through this presentation without symptoms, then I can rest for the rest of the day. How much more prepared are you in the second sense. So, it's not like having a more, we would think of this as catastrophizing, which I hate the term, but this idea of worst-case scenario, jumping to the worst-case scenario, versus self-efficacy. I'm capable. I'm confident. I've done this before. I'll do it again.

I think that having that more self-efficacy, mindset, cognition style, it's not that the cognitive style magically changes your symptoms. What it does is it changes behaviors. And I think the most important behavior for most people with migraine is medication taking, or whatever your other acute treatment strategy is. It's knowing what your plan is and feeling really confident that you can enact it even on your worst day.

So, I think that one of the big ways cognitive behavioral therapy for migraine and talking to a psychologist about migraine works is actually through the drugs. Because you're using them the way that they're meant to be used. You're more confident in that. You use them more consistently. You use them earlier. And of course, you're going to have better symptoms if you're using the treatments that are available to you in a way that's a little bit more effective.

So, I think it's really important when in our heads we hear how if I just think, oh, I'm going to think away my pain. I'm going to think away my migraine. So, we recognize that we really don't think that's how it's working at all. Your psychologist really doesn't think that's how it's working at all. They think that it's changing your behavior in some way that's affecting the underlying biology of the disease state.

The other thing, though, that thinking from a more self-efficacy framework does, is it lowers your body's sympathetic arousal. It reduces the parasympathetic response, so that your fight or flight, your alarm reaction, your get up and go, is tamped down. And that is important for migraine management. This is another thing that we can have, but two ways. This is why your psychologist friends and your friendly neighborhood neurologist want you to do relaxation is to try to tamp down that get up and go and give yourself a little bit more parasympathetic rather than sympathetic response.

But we also used nerve stimulators to do the same thing. So, the vagal nerve stimulators, they are inducing a parasympathetic response in a very similar way to what we're trying to do with relaxation or biofeedback. So again, I don't want people to think of behavioral strategies of all stripes as somehow like different categories or totally distinct from our biomedical treatment approaches. They're trying to get at the same things just through different mechanisms.

Lindsay Weitzel, PhD:
Let me ask you one last thing that I think is interesting. And it's all over the internet and books we read, and I've read a lot of these books. And I'm not saying that I haven't tried these techniques, I just don't, get mad if they don't cure me or expect them to cure someone else, if that's a good way to put it. The idea that people perhaps take their stress and displace it into pain or stress in their body, and then it becomes a disease of migraine, myofascial problem. What do you think of that, when people try to blame certain illnesses, including migraine, on that? So, in other words, oh, my gosh, I'm stressed. I don't actually want to go to school today. Oh, there's my pain and I've displaced it into this thing. Can you comment on that?

Elizabeth Seng, PhD:
Yeah. So, and this is so delicate because the idea helps a lot of people, but it also harms some people. You want to talk through ways in which you can use this. I want to talk through what's actually happening, I think, from science. And then I want to talk through ways you can think about it that's helpful, ways you can think about it that is harmful, and how no two people are going to have the same perspective.

So, what is absolutely true is that your HPA axis (hypothalamic-pituitary-adrenal axis) regulates your stress response in your body. Your HPA axis is particularly vulnerable while you are young and growing up. It's learning how you deal with stressful things in the environment. When you experience significant stress or trauma during that time, deprivation, war, sexual assault, other kinds of really bad events, witnessing bad events, it messes up how your HPA axis manages stress. And you can learn to do it

better. But it is I mean, that is a particularly important period of your life, and it will be more important for you to think about and retrain your body and how to deal with stressful situations.

And that's both not your fault, but also a real thing. And also, there are treatments for it. And that can for some people be really empowering, because when they then think about their migraine, their fibromyalgia and other stress related illness, they can think, well, why me. Well, why me? Because this awful stuff happened when I was a kid and it took its toll on my body, and now it's coming out in this way.

And for some people, that is just empowering. They're like this isn't me, this isn't my fault. I had a bunch of crappy things happen to me and it's screwed up my stress response. And now I'm doing the hard work to learn how to regulate it, though me. This can be really empowering. But for some people, that idea that I already lost so much from this traumatic experience. Are you really telling me that it also robbed me of my health later in life. It feels like it's giving a lot of power to potentially powerful others in your childhood who have already taken away things from you.

And that's just not helpful. That's just not helpful. What we want to focus on in that case is the here and now. Right now you have this disease. It's genes mixed with environment. It's not your fault. But there are things that we can do to try to help you manage it. And here's some okay. So, if it helps you to think about your physical ailments that are associated with early childhood stress and trauma, and stress and trauma in other times of your life, as well, I didn't cause this, this thing caused it. And that's a helpful framework. I love it.

It has not been helpful for most people that I have worked as a psychologist, because it almost gives too much power to that bad thing, that bad event, that person. And it feels like then that person or that bad event, like, continues to live with you forever. For many people, that not empowering. It's the opposite of empowering. It makes you feel powerless.

So, in that case, I mean, sure, look, we know that just regulation of the HPA axis is associated with all sorts of diseases related to dysregulation and homeostatic balance, which include migraine later in life. Yeah, definitely. That fact, I hope for everyone helps them feel more like, wow, migraine isn't really my fault. I didn't do this. That's the message I hope everyone takes. And if you want to take it further and that's helpful for you, love it. Read all of those books and get deep into it. That's fantastic. But for a lot of people, they actually find that unhelpful. And that's okay too.

Lindsay Weitzel, PhD:
And I think also certain people will listen to what you just said. I think this is something that I've noticed happens, and it's why I steer away from those conversations a little bit. They assume that everyone that they meet that has migraine or severe pain, must have experienced some horrible trauma. And if they just hadn't experienced that trauma, they would be fine.

And sometimes when I tell my story that, yeah, even my first memory was migraine. Well, same with my father, my son, we have a very strong genetic component. But people will be like, my gosh, preschool must have been so stressful for you. And it kicked it in. And I was like, wow, no, preschool was not all that stressful other than the migraine. Thank you. It's very funny that how many people will say that, though they're always looking for the stressor that brought it on. So, it is very interesting, and

how delicate you have to be depending on the person's biases who you're talking to when you're trying to talk about pain and migraine.

Elizabeth Seng, PhD:
Yeah, absolutely. For many of us, we were going to have one of these diseases whether or not things happen to us. And how they then present may be a little bit different. So, I have a genetic condition, a single-gene mutation really, really obvious. You see the gene, you're like, there you are. But for most people it's not a big deal. And it was like not a huge deal for most of my life. I had Covid the second time. Turns out it's something that's taken over my life in a way like it's taken over the life of many of our community. This disease has absolutely taken over my life. And it's interesting because it's this gene-environment interaction. And I'm like, wow, I could have lived with this for my whole life, and it would have been this minor thing, and now it's this major thing because of an environmental change.

Look, for most people with migraine disease, it is probably going to present itself at some point. If this didn't happen it was going to be this other thing. There's no sense in beating yourself up about it. There really is no sense once you have migraine disease to go back and try to figure out what it was, what lowered your threshold anymore. Because it doesn't really help this point. At this point there are things that we know that increase your resilience to migraine attacks. Some of them are drugs. Right. Love that. Reducing migraine frequency. Some of them are behaviors. Love that, reducing migraine frequency. But it's not helpful to go back and say, oh my god why. And I know we're pattern detectors, but it's just not helpful.

Lindsay Weitzel, PhD:
The best protection is still a dark sense of humor.

Elizabeth Seng, PhD:
Yeah. Definitely.

Lindsay Weitzel, PhD:
So yes. Anyways. Well, is there anything else you'd like to add to this topic before we go today? It is such an important topic. It is a loose discussion but just an important topic.

Elizabeth Seng, PhD:
So, I want to just take one minute to talk to everybody who may be listening. If you're still listening at this point, if you're not a person with migraine, but if you're a person living with someone with migraine, or if you are a caregiver of your spouse, of your child, coworker. The way that you talk about migraine with the people in your life really matters.

And I want you to recognize that even the most supportive conversations can lead people to blame themselves for the disease when they're so focused on, well, what did you do? Well did you drink water. Well did you do this? Did you do that rather than focused on what can we do right now? Oh, your symptoms are starting okay. Do we have water? Do we have our treatment? If we need to leave, can we, and how are we going to do that? By helping someone with migraine feel like they have self-

efficacy in a current situation to deal with what their current symptoms are right now or if the symptoms worsen, that is extremely supportive. And it's even more supportive than either initiating or continuing conversations that are that are like, well, why is it happening now? What did I do to make this thing happen to me today?

We're pattern detectors. It's the first thing that we want to talk about. But it can make people blame themselves. Oh my god I forgot to drink water this morning. I did this to myself. Clearly, I screwed up. I'm terrible. It can lead down this self-blame pathway. Try to stick with your people with migraine in your life. In the problem-solving present moment, I am here for you, and we are going to get you through this kind of perspective.

Lindsay Weitzel, PhD:
I love that you say that. I have to say some empathy for the moms out there, since now I'm a mom of someone that has daily head and facial pain and migraine. There is this thing where they're at that age, they forget everything. They don't do everything, and you're like, okay, well, where did you lose your water bottle? I do have this thing where I'm like, we have these baseline things, we drink this much water, we take our medicines, we do the.... And then once the pain comes down a little bit, I'm like, okay, did we hit the baseline things, so that he doesn't feel like I'm blaming him, but I still have to make sure those are done. And something for the moms, because it is hard to make sure all those things are done without them thinking you're blaming them.

Elizabeth Seng, PhD:
Yeah. And one of the things that I would encourage, too, is rather than thinking about what happened during the previous day, we can think about, so tomorrow how do we make sure that we get our snack. And we make sure if they didn't go to the nurse early enough, tomorrow how can we notice our symptoms more so we can go to the nurse earlier. All of those pieces. We want to think about building confidence, especially in our kids. They already lack so much confidence. They're trying it out. They're trying to figure out how to be in charge of their lives and their health. And it's hard enough for kids without migraine to do that. We add migraine in the mix, it's a huge challenge. So, lots of empathy for everybody trying to help their kids manage migraine.

Lindsay Weitzel, PhD:
All right. Well thank you so much Dr. Seng. As always, it's just a pleasure to have you on and I hope everyone enjoyed this episode. Please join us again for the next episode of HeadWise. Bye bye.