



Episode 224: How to Use Sound and Music to Optimize Focus and Sleep With [Brain.fm](#)

Child: Welcome to my Mommy's podcast.

**This podcast is brought to you by Ready. Set. Food!**, a new company revolutionizing food allergy prevention in children. We all know that this problem is on the rise, and most of us know someone who has a child with food allergies, or have had this experience ourselves. There are many theories for this and certainly many problems that need to be addressed like gut health and immune support. Ready. Set. Food! is taking the cutting edge research and science and using it in a practical way to help babies and children avoid food allergies in the first place. Here's how. The most up to date studies are showing that carefully calculated early exposure in the right amounts can stop many cases of food allergies! Ready. Set. Food! makes this easy with a simple system that can be added to breastmilk, formula or baby's first foods to give incremental and calculated exposure to the top allergens like peanuts, egg and milk. When used as directed, this can reduce the chance of allergies by up to 80% and it is recommended and overseen by many of the nations top pediatricians. Learn more about this evidence based approach at [readyssetfood.com/wellnessmama](https://readyssetfood.com/wellnessmama)

**This episode is sponsored by Four Sigmatic**, a company whose delicious drink mixes I use daily in some form. I've been fascinated lately by the benefits of medicinal mushrooms like Chaga, which has more antioxidants gram for gram than anything else on the planet, Cordyceps which is great for the immune system, Reishi which helps promote restful sleep, and Lion's Mane which is thought to promote focus and brain health. Four Sigmatic takes these superfood mushrooms and blends them with coffee for a brain boosting jitter free morning drink. They also have a line of delicious elixirs that are caffeine free and great for any time of the day. I almost always end my day with a warm cup of their Reishi, which makes a noticeable difference in my sleep quality and I often begin the morning with a cup of the coffee with Lion's Mane. My kids love their superfood hot cocoa and I love that the Reishi helps promote calm and sleep! You can check out all four stigmatic products at [foursigmatic.com/wellnessmama](https://foursigmatic.com/wellnessmama) and save 15% with the code wellnessmama.

Katie: Hello, and welcome to, "The Wellness Mama Podcast." I'm Katie from [wellnessmama.com](https://wellnessmama.com). And today's episode is going to be all about the brain, and music, and how we can improve our brain using music. I am here with Daniel Clark, who was one of Brain.fm's first users, and now serves as CEO. We're gonna hear a little about his story today. But he's constantly striving to build a company that can change the world through music. And in this episode, we delve into the science of the brain, and how to use music and sound to improve it. So Daniel, welcome and thanks for being here.

Dan: Thank you for having me.

Katie: I'm super excited. I think this is a super fascinating cutting-edge topic, and I'm guessing a lot of people are already familiar. But for anyone who isn't, can you explain what Brain.fm is?

Dan: Sure, so at Brain.fm we make functional music to help people focus, relax, and sleep better. And it's all backed by science and research.

Katie: Awesome. So can we go a little deeper on like how that works and what really separates it from other types of music?

Dan: Yeah, of course. So basically what we do is we have a patented AI system that creates music that is created for a functional purpose first, and then the music qualities around it are created second, right. So what happens is, we have all this research on fMRI data, EEG data, and large scale testing with people, and we're trying to enable individuals to have mental states on-demand.

So we do focus, relax, and sleep as mentioned earlier, our focus product to help people, for adults anyway, is that when you have a project due tomorrow, you've had two cups of coffee, and it's 2:00 in the morning and you feel like you're in that zone and you can fly. That's exactly what we're trying to replicate on-demand in individuals, in the same exact way for sleep and for relax too.

So if someone has anxiety or just needs to de-stress and take a break, they can throw in our relax music or our asleep music which can help people fall asleep in 15 minutes. But also stay asleep and have a better night's sleep at the same time.

Katie: Interesting. So people are using this while typically doing other things. This can be used while working or sleeping or any time of day pretty much?

Dan: Yeah, exactly. So it's meant to be more on the background noise. So when you put it on, it's not something where it's...we're not trying to compete with your favorite Rolling Stones mix let's say. It's more about to be used to block out distractions while focusing or sleeping even. Like for example, I live in New York and it's noisy outside, and where we can't necessarily control the environment, we can control the sounds that are in our house, and, you know, we can help identify, and help people fall asleep faster and stay asleep longer.

Katie: Interesting. So the moms listening maybe... I mean, I think we all have an understanding in some ways of how music affects us, whether it be experiences with music that just touches you on a super deep level that gives you goosebumps. Or I know to moms, there's a lot of marketing about certain types of classical music being good for the brain in different ways, or good for babies' IQ. Although, obviously those are controversial, and some of them have been disproven. But I think just intuitively, as humans, we understand that music can have a really deep impact on us. But I feel like you're talking about something even above and beyond that. Is there actually like a physiological measurable thing that's happening in the brain with this type of music?

Dan: Yeah, there is. So we have... What I tell people is it's kind of like we have nine secret spices, and through different kinds of events and the music that we design, we craft music to have a certain kind of response in your body. So the process that we use through our AI is something we have deemed neural phase-locking. And

basically what that does is it encourages your brain to arrive at a certain mental state, and then phase lock or stay there for as long as you're listening to our music.

It does have a physiological effect on your body, and actually, we're currently in a grant right now from the government, to help us validate if we can compete with different kinds of ADHD medications and be either a replacement, a preliminary step, or in addition, so someone can take less of those medications to be more effective. So it's really interesting. Most of this stuff comes from an evolutionary level. So we find in our testing that this works on a very large variety of subjects, some with ADHD, and some actually just not diagnosed with that.

Because what happens is on a fundamental level, we're all human, and we have these things that are built into us. One of the examples that I say is most people, when they're sleeping, if I say your name Katie, you're gonna wake up. Why? Because your ears and your listening or your hearing, is so ingrained with our alert system. Ten, 20,000 years ago, those alerts being distracted actually saved our lives. Because when you're sleeping, it's a bear coming to eat you, or a villager, like from another town trying to hurt you, perhaps, or you know, a myriad of different kinds of things that are trying to hurt us, right.

And in the place that we live today, in society, we don't have those things trying to hurt us. Where you know, the worst thing that happens is we get a Facebook notification alerting of this, and what happens is our brain is in overdrive all the time. What our music is designed to do is to really stop that and really block it out, and focus your attention on one area. So what I like to tell people, a good representation of this on a nonscientific level, is most people sleep better in thunderstorms and when it's raining.

And it's because most predators don't hunt in thunderstorms, or when it's raining. Or a more accepted example too is the reason why red makes us hungry. It's because looking through the canopy of trees, you see a red apple, and it's ingrained into us that, "Hey, this is what's making me hungry." And if you look at like McDonald's and these other companies, they do red because it has a response from you.

So what we do, coming back to our music, is basically taking the things that we do know from an evolutionary level, and through our testings, and through our data, and basically combine a model to create sounds and music that is created with an activity in mind first. And then we basically work with our composers iteratively with our AI system to output this thing where in 10 to 15 minutes you can arrive to a mental state on-demand.

Katie: That's super fascinating. So you're basically using things built into our nature, like you mentioned thunderstorms, and then basically recreating those kinds of effects in the brain to accomplish a certain outcome in the body basically? I'm guessing that goes far above and beyond just like for instance, a white noise machine?

Dan: Correct, yeah. So the difference between white noise machines and even some of the things you mentioned before like classical music and stuff, is that there are certain qualities of those that do work, right. But your brain is really good at normalization. So what that means is that when you have certain things that are going on, you kind of just adapt to them. So it's really hot outside when you walk outside, and then 20 minutes later, you're still outside, you begin to sweat because your body wants to reach its homeostasis. It's the same thing in your brain, right?

So what we're doing is our music is in comparison to white noise or to these classical things, or different kinds of...really all different kinds of music that you're listening or mentioning, is that we scientifically test everything. And we have a...I wanna say almost like an ingredient list of things that make music work in a certain way. So one of the things you'll see is if you try our music is that we don't have any lyrics, or sound, or people talking in our music or singing.

And the reason is because even if you're listening to your favorite song, and you really like it, there's tons of studies that actually show that takes away from what you're doing for focusing. Or even just trying to sleep because it distracts you, and you have to put energy into processing that sound and, you know, doing things. So every single thing we have has a very specific approach. It has a very specific starting and endpoint. And then we conduct and create music around those different variations that we have to hit to be able to, again, encourage that mental state more effectively than methods have done before.

Katie: Interesting. So you mentioned sleep and focus and even conditions like ADD and ADHD as examples. And you mentioned that you scientifically test everything. So what would be some of the potential like measurable results that you're seeing in people after they begin using this?

Dan: Sure. So we have come to science on this in different ways. It is challenging to be able to give certain concrete results because even someone's focus is very different depending on different activities you're trying to do. If you're focusing on trying to, you know, do emails or even just, you know, do some kind of desk work, it's different focus then if you're doing homework and doing math, for example. So what we do is we test in a variety of different methods.

One is we do fMRI data, where basically people are in this machine that are listening to our music versus regular music, or white noise, or no music, no sound at all, we do that with EEGs. And we also do large scale testing with video games. So we have people play video games with our music versus other music or none, just like before, and we're able to basically discern, you know, what improvements we have.

So really, it depends on the specific activity, but across the board, we can see people focus and stay at activities longer than they normally would. One of the video games that we have, for example, is it's actually just pressing a spacebar every time you see a three or an eight flash on the screen. It's a very tedious game. It's not designed to be stimulating, it's actually designed to be boring on purpose. But we find that when

people listening to our music, even though it's a task that they're incentivized to finish, that they stick at it longer than someone that doesn't.

And that translates basically to when you're in the zone and doing things that maybe aren't as enjoyable as you'd like to do, being able to stay and stay motivated and get through it, and really have, you know, results. At the end of the day, getting more work done, so you can focus on doing more things that you find fun or enjoyable.

Katie: That's really, really cool. So how does this on a practical level sound compared to regular music? You said there's no lyrics, is it comparable to anything anyone might recognize? I wish we could play it for people, but what does it sound like?

Dan: Yeah, that's a great question. So it actually sounds just like your regular music. We've been developing this technology for like 18 years now, so you can't really find a discernible difference. You'll hear some oscillations that go on during the music play. We also use things of 3D sound, but we have classical music, we have electronic music, we have Lo-fi and jazz and things like that. So really the goal is to find the genre that you like. And it actually doesn't even really matter the genre or the type of music, it's more about the stuff baked into the music behind the scenes.

Katie: Okay, got it. So take me through the practicality of...like, is there a certain way it has to be listened to? Can it just be like for instance, just playing ambiently in a house? Or does it need to be like via headphones? Or how does someone interact with the music?

Dan: Yeah, so it can be played ambiently in a house, but the best conditions are when someone is using it with headphones. So what we have right now is we have an app, it's a subscription service. And basically, you go in and you pick what you wanna listen to. So focus, relax, or sleep, you focus, for example, and someone would be listening. And what happens is, as you listen to the music, how you interact with the music, whether you skip something, or play it, or pause it, actually builds this whole data point for you, and we're able to customize the music for the specific individual that's using it.

Now, we have had instances where we're actually testing...we're building at Alexa right now. And one of the people in the project has a kid that is doing school and doing homework, and he has been playing it, you know, testing it. And he actually finds that his kid just by listening into it has a better time concentrating and focusing through things. So it's one of those things that I always recommend that headphones first, but if that's not something that's possible or really wanted, then it can be used ambiently like you're saying.

Katie: Okay, I wondered if, like, there's a use for it potentially in classrooms, like, I wondered if it could be used wide scale like that. But it sounds like it's preferably used more individually, because of the AI basically, it's learning from you?

Dan: Correct, yeah, we are actually experimenting with some charter schools right now and trying to figure out the best use case for that. So we're doing some quick studies basically, to see, you know, what those reactions are, and I'm happy to share those as we get them.

Katie: Awesome. So I'm still... My area of research is nutrition in the body, so I'm trying to like fully wrap my mind around how music is impacting the brain, is it a physiological thing? Is it like an electrical thing? Is it a brain wave thing or what...and is the music itself...like, are the wavelengths different? I hope that's not a dumb question, but I'm just curious of like, on a physiological level, how the brain's reacting differently versus other types of music?

Dan: Sure. So basically to walk through...and I'm gonna apologize in advance because I am not the Ph.D. responsible for this. We do have a lot of scientists on staff that can talk about this more intricately. But basically, on a maybe non-scientific level is that we have different modules in our brain, and we have different kinds of waves. We have, you know, theta waves, delta waves, things like that. And they've been attributed to different mental states that we have, right. And on the most basic level is that your brain talks to itself, right, it postulates.

So what happens is, the more focused you are, the faster it's oscillating, let's say, right? This isn't an exact science, but this is a good representation. And what happens is we're talking right now, let's say we're moving, you know, at a certain speed, and for you to be in a focused state, your brain has to be moving faster, right. For you to sleep, your brain has to slow down. I know we've all been, you know, lying in a room one day trying to fall asleep and we can't because our mind is racing, we have so many things on our mind.

So, basically, through the different effects of our music, through the salient events, different kinds of oscillations that we do and more, we're basically able to encourage the brain to speed up in this example or slow down, and being able to be where you need to be to encourage a state. Does that make sense?

Katie: That does, and I know like I've read a little bit about how for instance, when you're meditating, the brain is in a different state, and you have different levels of different waves, than, for instance, when you're exercising or like taking a test. So basically, you're kind of identifying what the brain is doing in those different states and then figuring out how to stimulate that pattern?

Dan: Correct. Yep. And that's why we call it neural phase-locking. So we're able to know the phase that your brain has to be into, to encourage your brain to go there. You know, I think it's important to discern that your brain can already achieve sleep on your own or deep focus, right? All we're trying to do is being able to give you an opportunity to have a shortcut there. So people can jump into a meditative state, no problem, but it takes practice and a lot of, you know, just practice and time.

And the goal with meditation, for example, is being able to get into a meditative state and almost provide training wheels to get there. Same exact thing for focus and for sleeping that...eventually, if you lie in bed long enough, you'll fall asleep, but it could be a difference between 15 minutes or 2 hours, and that's what our product is trying to accomplish.

Katie: Got you, okay. And I know based on your bio, you mentioned that you were one of the first users, and you now are serving as the CEO of the company. So I'd love to, before we go further, hear your personal story. Because the more I am involved in the health world, the more I realize that there is so much value in the N Equals One studies and the anecdotal evidence. I would love to hear your journey and how you've implemented this in your own life.

Dan: Sure. I'm happy to go through both of those. So for first, I was working in advertising before what we're doing now, and I have always been interested in human 2.0 stuff, right. So, nootropics, different diets, different kinds of practices, like meditation and things of that nature. I've really tried it all. I'm normally on a ketosis diet, actually just jumping back on to it tomorrow. So that'll be fun.

But anyway, I came across this Brain.fm in an email, right, just randomly when they were launching their thing, I must have signed up for it before. And I was interested, you know, I've heard of similar products like this before and tried it, and was just absent-mindedly thinking out at the time, I was coding, I'm a Developer, and was working on something. And two hours later, I kind of came back and I was like, "Whoa, look at all this stuff I did? I can't believe it's only been two hours, how much I've accomplished." And I was very interested then, so I looked through the science and I go, "Wow, this place is... There's something here."

And then I remember buying at the time, you know, a subscription for the whole year, and I was like, "This is interesting." And I just started using it and using it, and I go, "Okay, this is a rocket ship. This has an opportunity to really change the world, and I wanna be part of the ride." So, you know, I remember calling them a bunch and they were telling me that they didn't have the budget. And I ended up quitting my job to start working for free for a month improving it. And you know, lo and behold, now I'm in my position now and running it.

And it's really interesting because I've the unique position to know what I felt in that moment, and my first experience, and being able to see the opportunity that Brain.fm has to help people. I mean, at the end the day, I'm now in the position to influence that, and the goal of the company is really to bring out the best of what's inside everyone automatically. And it doesn't... The cool thing about what we're doing is it doesn't even matter if you speak English, or French, or Mandarin, or anywhere in the world, it really depends on like, you know, these things that make us human. And that's what our music is trying to do, again, bring out the best in yourself. And at that time, that's exactly what I felt.

So for your other part of your question, the way I use it is I wake up every day and I have a certain to-do list. And what I try to do is I try to build a habit out of it. So I have certain zone times in my calendar, I do Mondays

and Tuesdays in the morning for like an hour. On Wednesdays, I do about two and a half hours or so. And then, you know, Thursday and Friday usually in the morning as well. And then what I do is I reserve that time, so I put on focus and I will basically, you know, plug away at my to-do list, what I need to accomplish. Doing some emails, you know, I'm running the company so I'm constantly, you know, having different kinds of conversations. And I try to just again have that zone time.

And then I come out of it, have a bunch of meetings, record podcasts like, you know, right now, and then jump back into it. So I'll probably do another session later today. On some days I try to get into meditation. So I'll bring that out and do like a 20 or 30-minute session. And then for me, again, living in New York City, I use sleep. So I put that on a pretty high fidelity Bluetooth speaker, and I blast it, and that helps me fall asleep. I'm also testing other products that we're working on for the future because we're, again, trying to enable mental states on-demand. And that's more encompassing, just focus, relax, and sleep. And we've got some really cool stuff planned for the future.

Katie: That's really interesting. And I think the focus component could be really huge. Most of the people listening are moms. A lot of them are working moms. So I'd love to hear some case scenarios or ways that you're finding users are using the music in especially like family life, or for moms, or for sleep. And as a corollary to that question, I know a lot of listeners are concerned with EMFs. And so I'm wondering, can it be used while for instance a phone or device is in airplane mode at night? Can you download it to your phone?

Dan: Yeah. So two of those, first easy question is you can download it. So we have offline settings, and you can just download your favorite tracks and then play them at will. For the other things... Sorry, actually, can you just repeat the first one I got distracted by the EMF.

Katie: Sure. So like best use recommendations for moms and for kids.

Dan: Yeah, of course. Okay. So really what people do is they try to use this as a tool, right, and for busy moms working out... I'm not a busy mom, but it's about getting more time and getting more done in the limited time that you have. Because basically, when you do have time, you know, to sit down and get work done, you know, if you could get six hours of work done in four hours, that would be an accomplishment. And that's our aim, right?

Same thing with sleep. So, you know, unfortunately, we can't all sleep eight hours a night that we'd like to, or if we can, we wanna make sure that we can optimize that. So really, a lot of people are using us for one or the other. Some people are using them for both. It really depends on what works for them. I get emails all the time from people that said, "Hey, you know, I haven't slept through the night in years because of, you know, this, this or that."

I mean, even after you're a mom, and your kids are old enough like my mom to take care of yourself, right? She still wakes up, you know, in that, "Oh, hey, where are..." These things that pop up in your mind because, you know, you have all these kids or because you have all these other stresses in life. And it's really again about using it as a tool to quiet your mind, and able to have, you know, really more production on whatever you're trying to do. Whether it's focusing or sleeping.

Katie: Got it. And I'm curious how this compares to... I know I've seen other types of music that are supposed to interact with the brain in different ways like binaural beats if I'm remembering that one, or like for instance, Wholetones we've had on the podcast before. I'm curious the differences and similarities?

Dan: Yeah sure. So, binaural beats and some other tones that have promised to do this in the past. Binaural beats specifically has had basically a leftover pop side from like the '70s with subliminal messaging and things like that. There's a lot of data that showed a lot of promise in that, but eventually, it actually got dismissed. And there's been tons of studies to show that your brain kind of normalizes to it, and it can have actually retroactive effects.

The main difference is that we have long-term studies that show increased effects. And we actually believe the more you use our service, the faster you can fly into those zones, because then it starts priming your brain on what's going to happen. So just like when you wake up in the morning, and you have your cup of coffee, and you say, "Hey, you know, I can't start my day without having a coffee." It's part of that trigger that says, "Hey, my day is starting. I have to get up, I have to wake up," kind of thing. Same thing for our sleep, and our focus, and all the other products that we have.

Katie: So you mentioned the study a couple of times and also the grant, can you explain the studies that you guys have done and the ongoing research that you're doing? And then how you're able to work within this grant?

Dan: Yeah, of course. So we've done multiple studies before on our focus and our sleep, right. We've done EEG studies and basically pilot studies as well. So to unpack all of that stuff, one of the pilot studies we did was with the U.S. wrestling team. So the last Summer Olympics going up to it we gave them our sleep product. And after using us consistently for I believe it was four months, we actually had the youngest male competitors sweep gold, and the male wrestling team did overall very well.

So that was one of our first sleep pilot studies. And then we started doing more studies again, with EEG and data that was able to effectively show evidence that someone would have better slow wave sleep. There's different kinds of sleep, there's, you know, REM sleep, slow wave, among other ones. But basically, slow-wave is responsible for the understanding or the memorization of certain things and tasks. It's also responsible for healing and being able to feel restful. There's theories and it's interesting because we're on the cutting edge of neuroscience, we're still learning a lot about how the brain, you know, reacts and is. It's one of the still mysteries of, you know, how our consciousness is here and all that, and we're right up against that.

And there's been studies to show that slow-wave sleep is also responsible for degenerative brain diseases. And you know, we're hoping that our product can help with that. For our focus grant specifically, we won a grant from the National Science Foundation, to help us study the effectiveness of our music in comparison to different ADHD and ADD treatments on the market right now.

So basically right now we're still in testing. But the next phase of the grant sets us up through getting through FDA approval, and through classification. So in 5 to 10 years right from here, if everything goes in the direction it's going right now, we could be one of the first digital prescribed medicines through doctors actually.

Katie: That's fascinating. I know a lot of moms listening are gonna be interested, especially as this becomes more available. Because there aren't, I don't feel like spectacular options available right now, other than the pharmaceutical options which a lot of moms are a little bit leery of, understandably. So that's exciting.

This podcast is brought to you by Ready. Set. Food! a new company revolutionizing food allergy prevention in children. We all know that this problem is on the rise, and most of us know someone who has a child with food allergies, or have had this experience ourselves. There are many theories for this and certainly many problems that need to be addressed like gut health and immune support. Ready. Set. Food! is taking the cutting edge research and science and using it in a practical way to help babies and children avoid food allergies in the first place. Here's how. The most up to date studies are showing that carefully calculated early exposure in the right amounts can stop many cases of food allergies! Ready. Set. Food! makes this easy with a simple system that can be added to breastmilk, formula or baby's first foods to give incremental and calculated exposure to the top allergens like peanuts, egg and milk. When used as directed, this can reduce the chance of allergies by up to 80% and it is recommended and overseen by many of the nations top pediatricians. Learn more about this evidence based approach at [readyssetfood.com/wellnessmama](https://readyssetfood.com/wellnessmama)

This episode is sponsored by Four Sigmatic, a company whose delicious drink mixes I use daily in some form. I've been fascinated lately by the benefits of medicinal mushrooms like Chaga, which has more antioxidants gram for gram than anything else on the planet, Cordyceps which is great for the immune system, Reishi which helps promote restful sleep, and Lion's Mane which is thought to promote focus and brain health. Four Sigmatic takes these superfood mushrooms and blends them with coffee for a brain boosting jitter free morning drink. They also have a line of delicious elixirs that are caffeine free and great for any time of the day. I almost always end my day with a warm cup of their Reishi, which makes a noticeable difference in my sleep quality and I often begin the morning with a cup of the coffee with Lion's Mane. My kids love their superfood hot cocoa and I love that the Reishi helps promote calm and sleep! You can check out all four stigmatic products at [foursigmatic.com/wellnessmama](https://foursigmatic.com/wellnessmama) and save 15% with the code wellnessmama.

Katie: From a mom's perspective too, I'm thinking when it comes to like health and life, and just balance, kids sleeping is one of the biggest factors that makes a difference.

So you mentioned it can be played ambiently and in airplane mode. Does this mean for instance, like all of my kids sleep at least two of them in a room, so could I put that on while they're sleeping? And they could all be listening?

Dan: Totally, yeah, so when we were talking earlier, there's actually a difference between the sounds and the soundscapes we have, and even just the frequencies of our focus product and our sleep product. So focus is best again over headphones, it can be played ambiently, but I usually recommend headphones. But for sleep, because it's such a slow wave sound, and because of the different frequencies are longer there's an easy use of being able to connect it through a Bluetooth device.

It has to be... I keep saying Bluetooth and connecting it is because your phone while it can play music, it needs to have the depth of sound. So it needs to have the low frequencies that we're playing to help be most effective. So you definitely could, Katie, throw it into a room and put it on airplane mode and put it on for eight hours and get the same benefits than putting on headphones and listening.

Katie: Okay, you just want a high-quality speaker that can get the full range basically?

Dan: Yep.

Katie: Okay. Can you explain a little more in depth why the headphones apply more to the focus one? Is it that there's...like, is there division between what each ear is hearing or just the waves themselves? Or what makes that more important with focus?

Dan: So there's a lot of high frequency sounds that we're playing that are a little bit indecipherable when you're trying to listen to them. But basically, when you have these high-frequency sounds, they're moving really, really fast in a room, they bounce off of things. And when they finally hit your ear, it's hard for your brain to decipher what is actually happening, or what is those sounds. So it's really easy for me to do visually with my hands, but unfortunately, we don't have that method right now.

But basically, think of... I don't know, I guess think of my hand going up and down extremely quickly, right. And those are the waves of sound that are entering from speakers. And when those waves hit an object, there's just a ton...there's even more waves that are moving faster, and faster, and faster. And then they finally hit your ear, and it can be lost. It's like a data transmission thing. Where it still works, you still have cell phone service, but it's not as strong. So that's why I keep saying if you are gonna use it, you know, ambiently to use the highest fidelity speaker, or being right next to the device works as well.

But in comparison are sleep, which is slow wave, because it's a slow wave sound whereas, you know, or something like that, that isn't baked into the music behind, that is actually doing the effects, when it bounces

off an object and goes to your ear, your brain, actually, because it's so slow can discern the difference and actually piece it together. And that's why it's more effective. And it's okay if it's just streaming off of a device.

Katie: Okay, super interesting, I think that makes sense. With the focus side especially are you guys seeing...like, who are your most use cases for that? Are you seeing lots of students, for instance, or researchers? Or, who are you finding is using it most often?

Dan: Yeah, good question. So, for focus, our biggest demographic are actually entrepreneurs and different types of people that have these very intensive jobs. So entrepreneurs, being one of them, being able to need to, you know, find a state of focus on-demand because it's very challenging to find that with, you know, running a company or whatever. We also do have a lot of students. But we also have tons of doctors and lawyers that have to have this deep work in being able to, you know, get to a place.

We also find a lot of people that generally use music already. So developers, people in front of computer screens all the time, they're using us. And then lastly, we have tons and tons of writers. And this is all for the focus product, but basically, people that are responsible for writing X amount of words a day. They're able to find their flow state a lot faster with us.

On the sleep side, it's actually a really wide spectrum. We have a lot of people with PTSD that use us. I get tons and tons of love letters all the time from people that have challenges sleeping, even people that are on, you know, prescriptions that have tried us. And it's really, I would say more about the people that need help sleeping, but also about the people that want that better night's sleep and are looking for more alternatives to get it. That's pretty much the core of our demographics.

Katie: You use the word flow state. And I'm curious because I've read, for instance, like, "Stealing Fire" by Steven Kotler and, "The Rise of Superman," books that look at the flow state and the physiological and psychological effects. So with the focus side, are you guys able to sort of mimic the brain patterns that actually happen in a flow state? I know they talk about the cycle that happens in the brain when that initiates, is that essentially what you guys are imitating or accomplishing?

Dan: So I'm gonna be very careful, and I don't know if I can say specifically we're in flow state, because there's a lot of different kinds of readings that are attributed to that. And I just haven't worked closely enough with them over there yet, but we're...you know, we have talked about it. So we're currently pursuing and seeing where that goes. But yes, I mean, we're trying to find the zone really, and trying to find, you know, intense and deep focus that you're able to replicate time and time over again.

I think that it's very similar and I guess... Flow popped out because I'm just here talking to you here in my office. But yeah, again, that's really what we're trying to do is how do we make you get to this place of, just getting...like feeling you can fly, and doing all the things that you need to do without necessarily thinking?

Because the challenge... It's like going to the gym, right, when you're at the gym, it's not necessarily hard to go to the gym because all you have to do is really lift weights, or run, or whatever, those aren't challenging exercises. It's the person inside of you that is saying, "Well, I wonder about this," or, "I wonder about that," or you know, "Did I lock my house?" Or, "Oh, wow, this is really challenging, this is tough." And it's about quieting that individual, right.

And that's the same for sleeping, that's the same for focusing, that's the same for working out. It's all about basically aligning to focus on the activity. And really, it's almost kind of like meditation, you know, taking out your busy brain and replacing it with the one that's doing the task. Does that make sense?

Katie: It does. And especially on the meditation side, that resonates with me, because I'm not the type to be able to ever sit and think about nothing, I've never been super successful at meditation in that way. But if I have like a focus or something I can concentrate on that's still creating that same state, then I am much more successful. So that part I love the idea of. Are the focus and the sleep are they part of the same programs? Or if someone wanted to try it, would they get access to both?

Dan: Yep. So basically, we're a subscription service, and when you sign up for the subscription, you get access to all of our content and our growing library. So you're able to use focus, relax, sleep, we also have nap and meditation in there. And, like I hinted at before, we're working on different products for the future. One of those is being workout actually, which we have some really interesting preliminary studies on. We're not, unfortunately, probably gonna release that until 2020, and that's because, again, we're science first, and we wanna make sure that every product that we have has been tested, and has results that well outpace like, "Hey, is this a placebo? Is this something..." you know, all of our tests are going above and beyond to prove that, you know, this is a method to help improve beyond just, you know, the thoughts of it. So, yeah, make a long story short, is when you get access to our service, you get access to everything, and also the future stuff that we're gonna be adding.

Katie: Very cool. And as we get near the end, a couple of questions somewhat unrelated that I love to ask, and can't wait to hear your answers to. The first is, is there a book or books that have had a profound impact on your life that you'd recommend? And they don't obviously have to be in the same vein of thought or topic?

Dan: Yeah, of course. So I think there's a bunch of books. I love the book, "Relentless." That's a book about basically channeling your energy, and it talks... There was a coach of Michael Jordan. And actually it talks about, getting really honest with yourself about why we want to accomplish a task, and I always love that book. I think, "The Slight Edge" is a great book as well. And it basically talks about how you can improve very slightly every single day. For example, if you're going for 10% or 20% increases over months, you know, it could work, and you could have these huge gains or you could do 1%. And if you just made yourself 1% better every day for a year, you'd be 365% better than when you started.

And you know, that's something that's always had a major impact on me because it's not necessarily about, you know, stopping everything and doing everything perfectly. It's just about getting a little bit better every day.

Katie: I love both of those recommendations. And then lastly, if there was a piece of advice that you could spread far and wide, what would it be and why? Because there is a couple hundred thousand people who listen to this, so I'm curious what your advice would be.

Dan: Yeah, I think honestly, it'd be about uniting your passion with something that can help people. So you know, my passion for what I bring to every day for Brain.fm is about... You know, I honestly truly feel that we have an opportunity to help elevate humanity as a whole, and that I can do that by spreading, you know, what we're doing. And that's why we're doing it with the science, and that's why, you know, I'm here even talking about it because we have something that is very effective and I'm excited to share it.

And I think that in anything, it's about having that passion first before doing something. Because in other areas of life or, you know, seeing other people sometimes their passion is to get money, or their passion is to get, you know, x or y. And while those may fund you for a little bit, they're not forever. I think when you have this passion, you unite people and really help all of humanity, that's something that can really go far and beyond, you know, just doing something to do it.

Katie: I love that, and I completely agree. I'm so grateful every day that I get to do something that both I love and it's super fulfilling, but more importantly, I feel like is creating a positive effect in some way in other people's lives. I think that definitely cannot be underestimated. And I love that that is what you brought up.

Dan, thanks so much, this has been super enlightening. I have not tried Brain.fm, but it is on my list, and I definitely will be trying it now. And I appreciate you explaining because I have wondered about the science and how it works. And you definitely answered all of my questions. So I'm really grateful for your time and for you being here today.

Dan: Yeah, my pleasure. Thanks for having me.

Katie: And thanks to all of you for tuning in. And I hope that you'll join me again next time on, "The Wellness Mama Podcast."

If you're enjoying these interviews, would you please take two minutes to leave a rating or review on iTunes for me? Doing this helps more people to find the podcast, which means even more moms and families could benefit from the information. I really appreciate your time, and thanks as always for listening.