Podcast Introduction and Guest Welcome

can these be changed? Can these imprints be change later in life? I think you can change anything. I Think that you've got to be willing to do the work and I that's why I went into pediatrics.

It's still tough because you got get mom and dad on board. And one of the things that I really think is really impacting when you bring that concept to the person.

Are you willing to do the work? It takes a lot of work, especially as you get older. And I know you can because we all talk about neuroplasticity and we can put in a great effort and a greater threshold of input and you start to move the needle.

Welcome to The Two Curious MD podcast. I'm Dr. Ali Ahmed. With the wisdom from holistic, alternative, and these conventional medicines, we are here to challenge the status quo.

We're curious about the connectivity and complexity between diverse fields of knowledge as it relates to consciousness, chronic illness, mental health, resilience, learning more about art and science of healing, or listening to stories of extraordinary healing.

You're in the right place. Let's dive in. Welcome to The Two Curious MDs, where medicine is more than just science. It's story, art, connection, and integration.

Hosted by myself, Soraya Rahman, This is a space where we challenge the boundaries of traditional healthcare and uncover the untold stories shaping the future of medicine.

Today, we are joined here by our guest, Laura Hanson, Dr. Laura, Hansen. And we're going to be talking about unlocking the subconscious. So with that, I'll pass that back to you.

Yeah. Thank you, Laura, for being here. I'm excited to talk about the subconscious mind because we deal with the sub-conscious mind with ketamine-assisted therapy all the time.

And I tell patients it's your access you get. Ketamine is a medicine that kind of gets patients into a meditative state, a psychedelic state. It's a dream state and often when you kind let go of that conscious brain.

the awake brain and you are just in this more relaxed kind of deep state of consciousness, you can learn a lot. And whether you call it the access to the inner child or to access the subconscious mind or memories or just that meditative state, there's so much that can happen in that state.

So tell us a little bit about your work and how does the subconscious mind, say, formed in early childhood? And what are those formation, those windows of developmental states like in that development of that subconscious minds?

So I'm asking a couple of questions, but from the beginning, like, what is a subconscious mine? How would you define it? When does it really start? Where does that really come from?

Well, first, thank you so much for having me on your podcast. This is going to be a a fun conversation. So the subconscious mind starts actually the last trimester of pregnancy and is developing until about eight and a half years of age.

And so I love too how you frame it, the developmental windows, because that is all of us. We've all experienced that timeline. Now I primarily work with children, but I also have a lot of adults that come in because I offer neuro

and biofeedback.

And when you're talking about the child, this part of their development is really their foundation. There's so many things that are going on during all of those developmental windows that're being highly influenced by that subconscious mind.

subconscious mind would want to think about it as the acorn didn't fall too far from the tree. So mom and dad or the home life is what is truly influencing how that subconscious is actually going to shape.

The big deal about this is that it's 95 of your function, even today as adults, where the conscious mind is only five. And so how you get wired up is going to influence the rest of your life.

So one of the things that we do here at Connect My Brain, we're also called Connect my Child's Brain. I also go, well, let's just go for a third, connect your brain.

Let's put them all in there. My pathway is utilizing neuro and biofeedback. That's one the main therapies that I offer here, at the practice. And so we'll put a cap on somebody's head.

There'll be 19 channels. That's considered the gold standard. And we're going to code data. Now we are not reading their mind, but we were looking at brain waves.

We're looking how those brainwaves are being organized in that brain. And so while your brainwaves are everywhere, they do dominate certain places. And, so, we look at the organization of those brain waves.

We look the powers. Is there too much? Is it too little? We looked at how many standard deviations away are you from typical? Okay, let's at least break down that piece.

So, a standard deviation, if I had a bell curve and I had a mean average, what a normative data bank will do based on gender, age, and handedness. Where do you fit in to that data?

So it's not normal. It's typical, okay? We can't judge normal, we can judge what we expected. to be. And so this gives us a lot of insight as to what's going on with the individual based on what their chief complaint is.

Subconscious Mind and Early Brain Development

What is it that they're coming in to work with? One of the classic things that comes into this office is children dealing with attention issues. So there's very descriptive patterns that show up in the brain when a child is experiencing attention So that's one part of it is that we can look at the brainwaves to help figure out why am I having such trouble paying attention when attention is innate for every human being.

When we do the neurofeedback, that is where neuro feedback is talking to the subconscious mind and it's doing it through feedback mechanisms. So you're going to sit in a chair, you'll be comfortable.

You might have a cap or a couple of leads on. And every time, based on what we figured out in the report, how we're gonna create the program, now you are going sit comfortably and watch something.

That's your conscious mind, and that's just really to entertain you. A filter goes over the screen. And then every time you're in the right place, then it's going to get bright and there's gonna be a little sound.

So we're using two powerful senses, visual and auditory, in order to go into the subconscious mind. And we don't want to use the conscious mind when we are training, because the consciousness mind is the reflection of what the report told us.

So this is one of the ways one our therapies gets involved with that subconscious mind. So that's one part. And then I think the other thing that is so interesting to me, how children so young are already so influenced with really

negative thinking patterns.

How many times, especially when I'm doing their assessment and I am getting to know them and they go, Did I get it wrong? And they're already going into this direction that they are not good enough.

They didn't do something right. And we really focus on that we're a coat. We're here to help you make your dreams come true, whatever that dream is. Maybe it's…

Is it okay if I ask you a question here? Yeah, go ahead. I'm very familiar with what you're describing, neurofeedback, and I am so glad that you were able to describe neuro feedback so articulately in what it does and how it captures.

And we do neuro-feed back at our center as well. Oh, great. doing, and it is for our audience, this is our patients who listen to this. And it's very important for them to understand kind of how the conscious mind and unconscious mind is working together when you do your feedback.

But when we first started, you started with that the development of that subconscious mind starts from the third trimester all the way to eight and a half.

How is that decided? Where did that figure come from? I'm very curious. Well, it's in published articles, and I got to agree with you. Like, who figured that out?

Who figured out that the last trimester of pregnancy is when the subconscious mind is coming on board? But I think it has a lot to do. And this is probably one of those curious points that Soraya was saying.

We're going to talk about also some things that you're curious about. So I am, I'm curious about that as well. But what I think could be a connection is the stuff that has to do with early on, you just got so much cellular division going on.

You've got some much differentiation going and you even got apoptosis going. So apop tosis for your audience is cell death, but I also want to make it connected to pruning.

And so we've learned especially in the autistic population, they are not going through those processes. And so there's so much differences that we see in that particular population that as I go deeper into looking at that aspect of brain development, what happens at the end, where it's all the fine tuning that's going on.

Also, so that is one part that I'm curious about. My other part, though, is I could see another thought that it's really going on the whole time because the baby is so intimately connected to the rhythm of the mother and especially primitive reflexes.

I love primitive complexes. And recently about like maybe even just a couple of years ago, I actually learned that the asymmetrical tonic neck reflex, while it's well known that it helps through the birth process, but every kick is actually going into the homunculus, the sensory motor cortex.

So when you learn that these pieces are happening all along, I would go on the side that there's got to be some shaping of every part of brain function from really, you know, are you familiar with Dr.

Bruce Lipton? Yes, The Biology of Belief. Yeah, I just love that man. I've actually had the opportunity to meet him at a conference and I volunteered to be his airport taxi driver and that way I could just pick his brain.

Literally. Yeah. He talks a lot about that there's a surge of information really collected two weeks before the baby's even conceived. What's going on with mom and dad in order to, you know, come together and create this life?

So I don't think we really could put a very definitive stamp on something when it began, but I do know that the window between seven and a half and eight and half is a critical, critical time in that hierarchy of the brain coming

online.

Yeah. So are you able to describe to us the forming of this subconscious mind in the early childhood phases? Well, the best part of it that I would put is it's the limbic area.

It's a cingulate gyrus. The very deepest structures of the brain. And when we talk about brain development, babies are fully formed, but they're not fully functioning when they get here.

Obviously, we know that, right? And so I've even started to get very deep into interception and the earliest forms of reflexes, which is known as the withdrawal reflex.

So in my mind's eye, what I'm looking at is this surge of the most innermost parts. of the brain going right down to the limbic area, the cingulate gyrus, hypothalamus.

And it's orchestration with the brainstorm because the brainstem is the very first structure that all babies are relying on. Because that's your vitals, that your survival, your reticular activating system.

So think of it as the gyri up here at the top. It's all being influenced by the very core structures. And that cingulate gyrus is a midline structure.

So that means it's going to influence to both sides of the brain. It has a front, it has middle, and it as a back. The back part is related, can be related.

to things like PTSD or somebody trying to suppress something that happened to them where the anterior is really connected to this outward emotional state that you're having.

So that, I don't have something specific to say, well, this is what the research says, but I would put it in the development of those innermost pieces.

and how it relates to that person's most eternal self. And I connect that dot, too, because what I see in kids. So a lot of these kids, we have one in five kids that are not developing as expected.

A lot those pieces are the ones that they have trouble with. like toileting, emotional regulation, and the other parts that you see like the right side of the brain is your emotional quotient, the left side your brain as your intellectual quotients.

And so a lot of times you'll see this suppression of right-side of brain and that's why these children are very much emotionally dysregulated. There's not enough activity going there and you're supposed to be in the rights side first And then all of that, that's why they call it the intellectual or the oldest part of the brain, because everything transfers over there.

But you get a lot of kids that do it prematurely. And so everybody says how intelligent they are, but they couldn't hold their emotions together for anything.

So I am not a proponent for gifted children, Because really, there doesn't need to be a gifted child. We need to have a well-balanced child, a child that's actually going through their development as expected.

Now I say all this because two, we see adults. And so one of the questions that I'll ask them is, How long you've been going through this? And 100% of the time, ever since I was a kid.

Yeah, that's very true. Me and Simi are both pediatric hospitalists. I know, she told me that. That's awesome. And it's fascinating the way you're describing the anterior cingulate gyrus, the hippocampus in the limbic system, they're really central deep structures.

Neurofeedback, Brain Mapping, and Attention

We know in pediatrics, because just the the brain on MRI differentiates, The first thing that the baby does is first learns to see, you know, learns the visual, has a regarding reflex, and it's very, so it starts from the back of the brain.

And then that parietal network, that sensory network learns kind of come online as they learn to look around and process information, sensory information.

They learn what's safe, what not safe. Then they learned to sit up and the motor cortex comes online and then they start walking. and Then comes that frontal brain, which is, the executive brain, and as that matures and differentiates into their adolescent years and even further until their young adulthood, that differentiation, both by networks, you know, when you can see this on MRI, essentially in the gray and white matter differentiation.

And what you're describing also is that lateralization, right, which is the harmonic balancing that you see And there's studies, I think, even to show that there is a difference between the hormonal effects on the brain, which affects the lateralization of that architecture in the brains.

What are your comments, everyone? This is how I kind of understand it from the developmental effect. Growth really happens from back to the front and then starts to differentiate.

That is the basic structure. But when the trauma occurs, Does that affect that developmental growth, that differentiation? Oh, yes. And it does start in the back, but it also starts back right.

Then it's trying to do those connections in a network. Before we go into that, I really want to bring a visual piece. And initially, in the womb, we are all defensive.

So we're going to learn first how to survive. And this also relates back to the brain development, neurofeedback, where you are going after a reward and an inhibition.

In order to get that inhibitation, there's got to have been some training there somewhere. That's in those withdrawal reflexes. and you think about what's in the womb.

It's baby amniotic fluid vibration. So it's a very light touch world. I always like to show somebody what that really means, I'll get right up into their face and how people will go like this.

You're not really touching them, but there's an energy, there is a presence, right? And then there was a transition and that word in reflex world is very important.

because we make so many transitions in our life. So we go from pulling everything away to going towards at eight to nine weeks with the moro reflex. But the withdrawal reflex, all of these reflexes, you will learn something in your neurology and then they're meant to grow up.

So we still use the withdrawal reflexes today. If you stepped on something, that's the common one. You're going to recoil off. if you burn your arm, you don't even think about it, right?

Well, in kid world, one of the things that I notice a lot is high distractibility. And lots of kids come in and mom or teachers or whatever, my kid is so easily distracted.

So here's, the vision piece. You're absolutely right. You got to see your visual cortex is in the back and you're developing this. So central vision, like if you go to the eye doctor and they say, read the smallest line of print that you can see.

Central vision is only 6% of your vision. peripheral vision is 94 of your vision. And it includes your eyes, your ears, and your vestibular system. So if somebody's coming up behind me, I'd look because I hear them and I see if I'm safe.

When these reflexes stay firing, these kids are just scanning. They're scanning the world. because they're trying to make sure that they are safe. And that is a huge part that I have found is relating to why this kid can't pay attention.

Because he's scanning his world. So I do a little manual test with him. Okay, look at my nose. Tell me everything you can see in the room without looking at it.

And in a second, blinds. Okay, but you looked. Can you just use this part? And then we also have a piece of diagnostic equipment that we can actually measure, record what their eyes are doing.

I got to tell you, 95% of the time, that's what's really going on is at that developmental piece. Now, if we took that back to the window when the visual cortex was coming on, We have to know that that is also programming their subconscious mind.

Anything that goes on, you know, it's not a perfect path. It should be. But if you take the experience that an individual is going through, that's what influences how that actually going to shape up.

How it is actually gonna shape the pattern from the back to the front. the differentiation, the circuits communicating, and that takes us back to the autistic population.

Those circuits are not shaping up, they're not pruning, not becoming efficient, you've got just a lot of chaos that's going on up in the brain. So what would that do to this subconscious mind, right?

So it's the individual's experience that really shapes what this is going to look like. That's amazing. Thank you so much for describing that in such a beautiful way because as you're talking, we're taking about imprints that already kind of, you know, primed in this young developing brain.

And on top of that, were getting this layering of all the different positive and negative, kind signals that are happening and molding. And, you know, some of the things that are happening are the caregiver's emotional states, the milieu and attachment patterns that available during early childhood, then those repeated experiences and narratives of childhood.

You are this. No, You're that. This is how this person is. Like how many stories get told about a child based on superficial behavior or just how they look and, you know, and that relationship, the emotional relationship the parent might have.

And as I'm recounting all of this, this is so much a part of a lot of the adults that we see who are dealing with childhood trauma is these are those unspoken ways in which childhood, trauma then imprints for their adult you know, behavioral patterns and relational patterns that they may then start to only recognize in their thirties or forties when they've lived life a little bit going, why do I do this every time something like this occurs?

You know? Why am I so avoidant in my attachment or why am so anxious in attachment? And it's all wrapped up in some of these patterns you're talking about.

And so what my question then, I guess everybody's question would be is, can these be changed? Can these imprints be changed later in life? I think you can change anything.

I, think that you've got to be willing to do the work. And I that's why I went into pediatrics because they're in an open window. It's still tough because you got get mom and dad on board, right?

And one of the things that I thing is really impacting, at least I'm sure you see it too in California, but I just think there is no margin today. You know, I always describe this as remember writing on loose leaf paper and on the left there's two skinny lines.

Don't go to the Left of the red lines, that's the margin. I just don't, think everybody's at the edge of paper. And so when you bring When you bring that concept to the person, are you willing to do the work?

It takes a lot of work, especially as you get older. And I know you can because we all talk about neuroplasticity, right? And we can put in a great effort and a great threshold of input and you can start to move the needle.

There's one of the things I have for my adults is a connect journal. That's what I call it. And it's literally to teach them how to work on the brain, but you in conjunction with doing something.

Okay. So like if you're here doing neurofeedback, I do a lot of exercise for the hippocampus, the hypothalamus more midline, Hippocampus is in the temporal areas, and there's great research.

And if we have time, we'll dip into that little piece, because it's really beautiful when you talk about cognitive flexibility and personality. But you got to go back to the Connect Journal.

You have to put in the frequency and the intensity to change the brain. The brain loves novelty, loves it. It doesn't want to be in old ruddy patterns.

Give me something new. Okay, so we start off with, okay, what is it that you want to work on? Okay. And then we're going to ask you the five W questions and you're gonna build on that over a 30 day period.

But if you will stick to this every day, 15, 20 minutes, it isn't like, you know, your taking a class. It's for you to get centered. I tell people pick the same spot every day and do your work so that you can have association.

Your brain will get into that state faster and faster. Within one week, you will have a bud in your brain. Now, a lot of adults, they feel it and they go, okay, I got it.

I can do it from here. And that's the mistake. Because if you don't keep putting the intentional attention with that intensity and frequency, it's going to shrivel up.

You've got to give it the opportunity to grow and to connect. Now, here's a, and I watched this during early spring, there's tree right outside my window and in early Spring it was just branches.

And to me it looked like a circuit. So the cool part about the brain is the microglia cells. So when you start down a new path, all of a sudden your brain goes, we're not paying attention to that old thought pattern.

Okay. We're growing something new. Excellent. Keep going. The micro glia cell go in for your behalf and say, I need some stuff. I'm going to go be like Pac-Man.

I'm going to go eat up that old stinkin' thinkin pattern and I am going take all that good stuff and put it to the new pattern that you are developing.

Wow. I mean, that is your brain working on your behalf. So I do. It takes some chutzpah, but I think you can. Yeah. You had mentioned the negative self-talk that the children have as well earlier and earlier in that critical, as their critical phase.

What would you say, why does that start? Why is it starting earlier? Is this a societal kind of conditioning? is this something else in our growth? I don't know.

what do you think is causing this negative, self referential thinking? And what are things that parents can do to prevent that from starting so early in my opinion?

So I think there's been many things that have happened over time.

Trauma, Imprints, and Can Childhood Patterns Change

If I were to kind of put a few things in a nutshell, I would say one of the things I noticed, because I've been in practice now 30 years, and one thing is that we keep kids too busy.

We don't let them be bored. Everybody's got to win a trophy. we have no expectation. And we just kind keep them all going, constantly. You need time, You need time to take a break.

You don't need to be scheduled for something five days a week. And it is really okay that you get bored, because that's going to help you find your creative side to go do something.

So the first three brain waves, delta, theta, alpha. Delta is your sleep wave, one to three hertz. Theta, four to seven, is you imagination. your subconscious mind, your precursor to sleep.

Alpha is your processor. And the frequency of those first three matches the age of children. So babies are one to three. That's why they sleep, okay? Four to seven-year-olds are all theta.

Okay, and then 8 to 12 Hertz for alpha, your school age, you're starting to put things together, right? So enhancing those elements of childhood and teaching our children to do things with their hands, with your mind.

I have seen, especially over the last five or six years, some of the chief problems that the parents would share with me is, well, we lock up the devices, but they're breaking in and they get getting it.

Now I tell you, that's an issue. If they're doing that as a child, do you think it's magically going to stop? So when we have kids that aren't following the structure that the parent has decided to run their household, I see so many kids being the controller of the household, the mood setter.

You know, I've had parents literally say to me, we walk on eggshells because if we don't, he gets mad at us. And we've got kids that are putting holes in the wall, yelling and screaming at their parents.

We have to be the parent. These children were given to each and every one of us. It's up to us, our brains are developed. They're not. And they really do crave structure.

But if you don't provide structure, you're going to actually see what's going on up here. and it's not that they've got a behavior problem. The guardrails aren't there.

Children have to have a bedtime. children have manners. Say, I'm sorry. say, excuse me. I had a little girl in here the other day, and she's adorable, but she does not think anything when her mother and I are having a conversation.

And I literally said to her, now say, excuse me, And she cried. and mom looked at me and says, yeah, she has a really hard time saying that. She's three.

Oh my gosh. Who's having the hard time? And this is what I mean by that whole imprinting part. I just don't think anybody has any margins. We've lost our ability to know what our role is as a parent.

This is the most valuable thing you're ever going to do in your whole life. And I love being in practice, but there is nothing greater in my life than being a mother to my daughter and my son.

That is the greatest accomplishment, and I have not always been perfect, trust me. I've learned a lot. She's gonna be 27 in about a week and a half, he's 38, I learned so much from them.

But it's the great role I ever had. And I would really encourage parents, be parents. There's so much going on. These kids have got to get off of cell phones.

Kids have to off devices. Here's some brain stuff to back that up. So they did some imaging called dense tensor imaging, DTI. And they found that the children were actually developing more white matter in their brain than gray matter.

Now, you're both shaking your head, so you've read this too, okay? So what does that mean to your audience is

that you have two types of matter, You have gray, and you white.

Gray is where we process, white is how we get it everywhere in our brain. We were talking about the circuits. So if you have too much of that, it's like having too many trains on the track.

And I bet there's a good… Do you guys have a subway in California? Yeah. Yeah, so pull up a picture of the subway station and how many train are coming into it.

I always pull-up Chicago, but that they can't filter. So that's literally changing the architect of their brain. and will shape their subconscious mind as well.

Now, this scrolling, okay, that was purposely engineered to make you addicted to it because it is influencing dopamine in the brain, a neurotransmitter.

And I see this all the time. I had a 15-year-old male acted like he was coming into the office and I have two windows so I can see everybody coming in.

and i was sitting here and was going, I wonder why I didn't hear the door open. Well, the parent dropped him off. And when I opened the door and looked for him, he was sitting on a bench next door on his phone doing some kind of gambling at 15. Okay.

So these things are really happening. Now the new stuff is this, and this is adults too. Everybody's like this. They're calling this the posture of dementia because in dementia, You're looking down all the time.

So you're changing what neurological input is coming into your eyeballs. You have over fixation of gaze and you are literally changing that feedback mechanism into yourself.

There's a lot to this. that I don't just say it just to, you know, don t have any fun, but we've just gone way too overboard. And I do. I think the pendulum has gone out the door.

Yeah, go ahead. Tell me. And I love how you bring it all in because what we're talking about is happening here and now. When the device owner and the youngest device in a family is in charge of the energy, then basically it's the company that's running the devices.

and is doing that, right? So we've kind of outsourced parenting in some way. What are you seeing as changes to the subconscious that are occurring? You mentioned a few things, but I think I really want to flesh that out.

Like, what are some subconscious patterns that you're noticing? For example, I had somebody ask me like, hey, it's gotten so bad with my three-year-old that he won't lay down to sleep if the device is not in the room.

And so we even got to a conversation about like how do you slowly, gradually remove the you know, from the room knowing that there's going to be that upset, that agitation, this sense of missing something really meaningful.

And so subconsciously, you what we're talking about is children and adolescents who are more attached to their devices in this brain way than they are to the people around them or to what's happening.

So what are you noticing as changes in the subconsciousness of both the children Well, what you said about agitation and irritability, that's number one.

They're just incredibly quick-fused and they cannot regulate, and then that is where it becomes the parent going, I feel like I'm walking on eggshells.

And so if we're talking about a three-year-old, if you've gotten yourself to where you're almost like a prisoner to your child's behavior, you are reinforcing it.

I err on the side. We got to do some cold turkey and we have to deal with that emotional stuff for a shorter period of time because it is having such a long lasting imprint on that childs brain.

And where in life, the other thing I always bring up, where and life does somebody do that with you? Like at your job? Does somebody go, okay, I'm going to gradually start to ask you to not be on your phone and get your work done.

No, you probably would either get written up or fired. And so you don't just automatically graduate into an adult status. Everything that we're doing with our children today in that subconscious mind is going through.

So one of the things that I think could be very beneficial, and I hope it doesn't come across, it's like just really cold, but it isn't meant that way.

Again, I'm gonna encourage you to be a parent. that child needs structure. And so you can't have a conversation with a three-year-old. That's the other thing.

I think sometimes parents are trying to reason with their children, and reason isn't available right now, especially when you're that little. They have to learn reason.

Well, here's one example. I have a young man, very emotional, and very attached to devices. And we're working on regulating. Now at eight and above, I can explain some things.

So I do everything in play, so it makes it fun, okay? And I connect with the child of their interest. Sports is a big one, right?

Devices, Parenting, and Childhood Regulation

So we have interactive metronome. That's that clapping thing. You guys familiar with interactive metronome? Okay. So we work onto this progression until the kids are on a hockey slide, sliding back and forth while they're playing.

And they have to work up to a thousand repetition, which is about 18 minutes. Okay? So this particular young man, you know, went through his progressions and his scores now consistently 50 or below.

So a good score is under a hundred, okay, just for the audience purposes. I can take his physical performance and I connect the dots like you have incredible Timing.

That means that that emotional side of your brain and the intellectual side. They can talk to each other and you can reason. You can take a step back when some trigger comes about and say, wait a minute, I'm going to take So with a school-age kid, you can have that kind of a conversation.

You can't have a kind conversation with the three-year-old. There has to be, look, instead of the devices, what does the child like to do? Mom would know, right?

So maybe you have basket full of creative things. big fat crayons, maybe some goo they like to play with that slime stuff. Maybe there's bubbles. maybe there is a coloring book.

Things that the child likes that you would put with them. And this is how we're going to replace it. Now the Child could go shopping with her. That way the children would get excited about what they're doing.

These are common things that we should be able to do with a child that is going in a typical development. If not, if it doesn't work that easy, that is a child going into a reflexive behavior.

And regardless of what's going on for a children, whether it's autism, attention, dyslexia, oppositional defiance, it does not matter. Every child will regress, they don't have a point of reference to pull from.

They only have what they've come from, and that is the brain stem and the reflexes. And if that's what… Yeah. I love that. And even as you're talking, you know, when we say that kids are growing up with this kind of heightened sense of needing to look around and always be aware, right?

There's this heightened of just being part of this dopamine kind you know, constant stream. And then we, as they get older, and now we're in our teens and our twenties, we are seeing things like, you now, difficulty kind of becoming independent or difficulty in, or getting, for example, a driver's license a little bit later and not really being ready for it.

Are you seeing those kind changes as well? Yes, especially if I get to see their brain map. I've actually told parents if this were my child, they would not be getting their learner's permit until their brain is regulated because at that stage of development, They are getting an explosion to that frontal lobe, but it's almost like, woohoo, I can do anything.

And girls are very, very common. to have car accidents when they first get behind the wheel. Boys are more common to get speeding tickets, but they're not ready for all of this.

And some states have actually gone to driver's license age, which I gotta be honest with you, if you're gonna put a person behind a wheel of a car, they really do need to be ready for it.

And I know we live in a culture that we just kind of expect we should be able to do all these things. But we also are in cultural shift, and we have been for at least a decade.

They're definitely not the way it was when I grew up. I just did one of my podcasts the other day talking about how nobody even makes eye contact with each other anymore.

We just, we're in a different space. Yeah. It's fascinating. I think your work is really very, very fascinating, especially because you're doing these QEEGs over the course of their time and of course, their treatment from where there's a lot of, I do feel like the adolescent and the young adult and as well as child brain is very very pliable.

And even when we do treatments with ketamine treatments, We find that their doses is often, they're lighter, you know, They tend to have different types of experiences and we're able to get to that developmental, that access to much easier than say when that imprinting has become such an ingrained process over a course of decades.

So I'm just fascinated. I think you have great, you probably have a lot of data that can really help a lot of people to really highlight what are the things that are actually happening, you know, logistically and electrophysiologically.

I'm sure you, can you speak to a little bit of what you've noticed over, with just the data of comparison of QEG from, say, a child or a six-year-old who you have been seeing over the course of their treatment, what do you notice in the patterning that's changing on there with your feedback and pre and post treatments?

Well, the families that do exactly what I tell them to do, I have a three-tier approach, mechanical, chemical brain. So we're going to the movements, we are going do the eye work, all that physical stuff, because that's truly what wires up the brain, so think about a baby.

When a babies comes into this world, they're not doing reading, writing, and arithmetic. They're rolling, they're crawling, their exploring their bodies in a gravity neutral kind of a position.

So we're very mechanical. I'll speak to the hippocampus for a second. That's one of the reasons why everybody does aerobic activity, even three-year-olds.

We get them to where they can walk forward on the trampoline or treadmill and backwards on a treadmill because they really get their brain's attention when they do something the brain isn't expecting.

But when you do aerobic activity for 20 minutes and your target heart rate, you literally burn the stress chemicals

off of the hippocampus, which has a very high infinity for the stressed chemicals.

And you create the brain protein, brain-derived neurotrophic factor, which now gives me a person who is, hey, what are we going to do today? They're ready for something new.

And then we do a lot of lab work. We do classic stuff like food sensitivities and, you know, gut panels and stuff. But recently I got into genomics, not genetics, genomic.

And this has been a real game changer in looking at that ancestral influence and epigenetic influence on this individual. And then we, of course, the brain, neuro and biofeedback.

The families that do the program in its wholeness, night and day difference, and these are programs, most of them are for 40 sessions. and then you're welcome to stay on and get chiropractic care, but the ones that do the work, they change.

Now, ones come in that have, you know, a little bit more struggle. They'll do 40, and we're going to go month to month. But again, if you work all three pieces, I could be really great at therapies.

But if you don't have the right fuel, we can't make it stick. And that's just a known fact. So the ones that do that, that work on healing the gut, making sure this individual is not deficient, Maybe they do have that MTHFR, I need a methylfolate, maybe they have the folate receptor antibody and they need to stay away from dairy, all forms of dairy.

And if they it, changes are inevitable. This is what we're talking about with neuroplasticity. The ones that don't, you dont get quite the same outcome.

Yeah. And so, are you seeing changes in attentional networks? What is the kind of network that you mostly are seeing? Because I can imagine this being a non-medicated approach to ADHD for a lot of kids.

Well, it's typically you're going to have slow waves in the front of the brain with classic attention issues. So you are resolving that. And then you'll have sometimes where I see the back of brain is hot and we just need to balance that out.

But as long as we're doing the program, And we're, like you said just a second ago, we are redoing QEEGs when we start seeing engagement is consistently above 55-65.

And the kids all get a notebook and we give them points every time. They are engaged in the process. It's counting it. So that's their score. For a kid, they love that.

But when we see those things consistently changing, we're going to take another map and see what we got to polish. And I see it all the time, and I can tell they'll sit down and they're able to engage into it right away.

So when we start with somebody, we're allowing them to just experience what they're going through. I love the kids that will say, hey, Dr. Hansen, can you make the picture bright?

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I can't see it. And I go, oh, no, I cant. But you can. Kids, what do you mean? And before you know it, you got a little sound. You just did it! And they start paying attention to that.

This one little boy that just graduated a few weeks ago, His mother really kicked in to the gut balance stuff that we do. And when he would sit down, he sounded like a rapid firing machine gun.

He was into it and points were just collecting. So you're seeing regulation, you are seeing awareness. And we teach them as soon as they become aware of what's going on, I'll start asking them, hey, how'd you do today?

I did well. I go, How do you know? And they go because the picture was bright most of the time. So now they're really engaged with the process. So now a program is only good if you can take it out that door, right?

And so we teach, once you get to that point, if something happens, you know, still trying to polish certain behaviors, I hate that word behavior, but if we're trying polish, certain actions, and I'll tell mom, okay, they've got this, something happened, tell them to sit down, because I'm really into breathing too.

So we teach them how to do biofeedback. They start at bio feedback before they go into the neuro room. And I go tell them to sit down, take three deep breaths and get the picture bright in their mind.

These kids are accomplishing this. That's amazing. So I want to bring it all together now, because I think part of a lot of what you described is also something that becomes available in that neuroplastic state after psychedelic treatments, which is how we interact with adults now.

And you talked about consistency, and you talk about how it's with the frequency and the amount of time that you're spending each time in the activity that's reinforcing.

Then you even talked the Connect Journal, is that correct? Yes. you're really engaging and that play and creativity are kind of the bedrock of how you do this.

So I'm really thankful to you for bringing in the two ideas that I think Alia and I both hold dear is that part of what's happening in adults in their neuroplastic phase is somehow similar in a lot of ways and we're hearing confirmation here of you see happening and children and you know just this idea that we are just opening up the ability that the brain has.

And it's not just psychedelics, exercise does the same thing. Anything when we choose to learn something new, we're already growing neuroplasticity and BDNF.

So not to kind of just stick to one route. But to me, it feels like we are at the cusp of teaching our brains to function in the ways that we weren't able to know.

I think the science is all kind of hitting at once. We've not really had an understanding that the prenatal time was as kind We had understandings, but I think now we have more evidence.

And so as the evidence kind of builds up to really pay attention to prenatal, early childhood, attachment, all these reinforcements that we talk about, and then now, we had this ability to kind work with them in real time so that the brain doesn't kind just stay fixed.

I want to ask you, what are you curious about going forward? What gets you up every day? What kind of, you know, will end with that curious question? Well, I think one of the things that I'm very curious about is why are so many kids?

I feel like they're losing their childhood. And so every day, that's like what my brain is looking at and dissecting every time I engage with them. Every one is just a new challenge for me.

How can I get this information more mainstream, more aware, rather than just sticking a label on them and have that be like their badge? I don't want it to be their badge.

Yeah. As you were talking about, you know, how things are more negatively skewed. The part that really came to me was that we've gone from a schooling system in which your testing and your homework wasn't digitized.

And you weren't constantly able to see where you were in relationship to your peers. And the amount of testing that we're doing, the amounts of constant feedback, amount deadlines that have, there's such, I mean I get intimidated and I got a sense of like I'll never get that done, you know?

I can just imagine. And I know like kids are really struggling with their sense of self-trust. So thank you for bringing it back to, you know, just like, what are we losing and how can we bring people back and, and recognizing that technology has its advantages, but it also has it's real detriments and we have to be the parents.

We have to be the ones in the middle to say and be heard. You know, and I think there is a huge movement happening. I know LA USD has just banned all devices under the age of 16, which is, you know was met with an outcry.

But a lot of school districts are stepping in because parents just, there has to a social change because you can't really take a child off of where the entire social network is because that also is unfair, but yeah.

where we're really struggling. And I think as pediatricians, as physicians who work with this intersection, we really look forward to rebalancing that out on a brain health level.

So thank you for bringing that. Yes. All right. Aliyah, would you like to ask any questions? I think we have so much more to talk about. And I'm going to, I was just looking at your website and I see your work and i want to be able to speak on, i think your podcast too.

I really see you at our center, we're kind of doing ketamine TMS and your feedback as a triad of a chemical, a way to kind and allow for that neuroplasticity to occur and reorganization of patterning and TMS being an external treatment that helps stimulate kind of the areas that are not functioning or in harmonizing rhythm.

And then there's neurofeedback, which is I feel is a very internal way of training the brain with, as you're describing with the, you know, with them.

the games that are available and training your brain within your feedback. I think technique really, and there's so much we can see happening in this field.

So much interest in a necessary non-medicated way, I really think could help a lot of people. Thank you for really doing your work. How would people find you?

Tell us more about, you know, where would they find more information about this for our audience? Well, I have a podcast too, and they did put that little connect my child's brain on that one.

So that's what it is on Apple and Spotify and all the other platforms. But you can also go to the website connectmybrain.com and we have. A complimentary consultation and feel free to use it.

I am the one that will call you back and just connect and. We're putting together a lot of. tools that we can help parents really understand, especially this reflex part to the developing brain.

I see there's an app as well, so. Yes, yes, thank you. There is, there is an App too. Very good. Yeah. Thank you! Yes. What a great conversation. Thank you so much.

Thanks for joining us on the Two Curious MD podcast. We hope today's episode inspired you to ask new questions and explore fresh perspectives. post or comment with a question or curious inquiry that you have and seek to explore or learn with us.

Stay curious and we'll see you next time.