Introduction to Trauma, Safety, and the Essential Sequence

Welcome to this interview on the Biology of Trauma Summit. I am your host, Dr. Aimie. We're talking about the trauma disease connection. And this interview is going to give you a very practical tool.

So many times we can get discouraged because we're learning all this information about how trauma becomes stored in the body, how it then becomes our biology, how it then becomes our conditions and diagnoses.

And we need solutions. And that's what this interview is. Now, in this interview, you will hear me talk about how I use it, but the importance is that it it really helps the foundational principles of neuroscience around safety and support.

And so in this interview, you're going to hear about a specific way that we can provide a felt sense of safety and support for our nervous systems that allow us to move into expansion.

When we don't have that foundation of safety and support or what we call regulation, we're not going to be able to open up and feel safe to open up. It can feel scary.

We can still force ourselves to open up, but then we get the self-sabotage or we get the flare up of our conditions because we did it in such a way that we did not feel safe.

So when we talk about stored trauma in the body, stored trauma needs, I felt a sense of safety to come out of that pattern. I talk about this in my essential sequence guide.

And so let me share with you the pathway into trauma, because this will be our pathway out. The trauma response is this lowest energy state of our autonomic nervous system.

And for it to come out of this state, it needs a felt sense of safety. It also needs time and energy. Those are the three things that it needs. But if we don't have that felt sense of safety, we will get stuck here.

Now, as we start to open up and come out of this trauma response, our body actually goes into the stress response because that's where it came from. It needs a felt sense of support.

And then we can come into the parasympathetic and experience this social engagement and a greater sense of connection and feel safe as we open up, feel safe as we connect.

This is exactly why I designed the 21 day journey was to walk people through this process. And so the whole first week of the 21 day journey, it's all different somatic exercises for creating a felt sense of safety.

In the whole second week, we do different exercises on creating that, felt sense of support, and then the third week we go into expansion and how do we do safe expansion?

Now if this is a bit over your head, if you're not familiar with these three different states of your nervous system and the essential sequence, you can come here to my website, traumahealingaccelerated.com, here under resources and what you would want is the essential sequence guide that will walk you through that process and how we're kind of like our solution forward.

And here would be the 21 day journey where you can read about what people are experiencing when we apply this essential sequence safety support and then expansion.

Now, I'm so excited for this interview because we're jumping into a very practical tool. And for this conversation I've

invited my good friend Marna Pacheco.

She is the founder of Capeable Weighted Products. Marna embodies the saying of necessity is the mother of invention because she is an adoptive mother and her child needed things to help her make her nervous system more settled, less reactive.

And so this is what Mana learned and how to do and how to provide for her daughter. Now she's developed a smart weight solutions and this is now being brought into hospitals.

And I'm so excited for you to listen to how it's helping both patients and caregivers because this can also change your life. So let's jump into this interview and learn about a very practical tool around weight, but not just any weight, the smart weight solutions and what it can do for people.

Marna, your products are different than other weighted products out there and I know that there's been I would say what I see is an increasing attention on the benefits of weighted blankets, but there is every weight is not the same weight.

And so you've developed a smart weight. Tell us what is different about smart weight? So smart weight solutions is really about the distribution of weight.

How Smart Weight Differs from Traditional Weighted Products

So a lot of times we can think of weight as being heavy or more weight, but we really don't want it to be more weight if it's weighing you down in a way that has uneven compression, doesn't conform to the body and it doesn't stay in constant contact with more nerves so that you can have true deep touch pressure.

So smart weight is about the distribution of weight. Having that overall even distribution of weight, no matter how big or how small a product is, then it conforms to the body.

It compresses evenly across the entire surface, and then it stays in constant contact with more nerves. Now the nerve is deep touch pressure to get to that third layer of the skin.

And if I blow across on that first layer of skin and go like a spider or something and it alerts us, right? But if we get to the deep touch pressure, then that deep touch pressure can reach that nerve receptor.

The nerve receptor sends that signal to the brain and then the brain does the neurological response of like a hug can release those wonderful, beautiful endorphins, serotonin, dopamine in all of those wonderful chemicals that are being released of our entire nervous system.

And when I look at our world today, Marna, I see a deficiency of touch. I don't know what you see, but we we have increasingly become more self-sufficient, more independent, and more in our heads and we are touch deficient.

And to the point where I think that it's if someone touches us, it almost catches us off guard because we're like someone touched me, right? Right. This is not something that we are just used to.

So being able to bring this in and have a person experience this type of safe touch, I think is a powerful step towards becoming more embodied. You touch, right? Right.

So you know, the focus of this product was really because our nervous systems are telling us something, right? Were alerted. We have vulnerable nervous systems right now.

We know what the world and what we have gone through over the last few years. And we're more aware. But then the question is, well, what do we do with that?

And so you bring this awareness of the weighted blanket craze, and it's to do this or do this or do this. The problem

with that is it's touting more weight or 10 to 15% of the body weight.

That's an older formula, but it really doesn't pay attention to the distribution of weight. So the distribution of weight also allows for freedom of movement.

Freedom of movement means that you don't feel restrained or restricted. And when our nervous systems are restrained or restricted, that is an unsafe feeling.

Now you can get a bad hug or good hug or, you know, and so we want that hug to be right. But it does really go beyond just a hug. It is about the science of cues, of safety.

What is our environment telling us? How do we feel and how can we wear the weight? How can we use the weight for sleep all night long? And that's different because of that distribution of weight every two inches for us.

Now, I have a little example that I can kind of show most weighted products, and this is my little fancy bag system here where they're putting a glass bead in there, but it's actually the size of a stand of like a sand pebble, which then can act like a sand bag.

Well, we're all a little round and curvy, right? So if I have my arm up here and we're trying to put this pocket of weight on us, it just falls to the side.

It gives the compression, which sometimes can feel very good. But after a while, when you're trying to move under that, all of a sudden it just punches that shift.

That feels uneven. It doesn't feel comfortable. But what we do is this this is what Smart Weight Solutions is. It is patented because it's smart. And so when we put this on us, we use a medical glass bead that is bigger so we can actually get to that third layer of the skin so we can reach that nerve receptor, which is so important.

Well, we want to touch more nerve receptors than just a feel. We don't want to restrain it. Right? So when we put this on, it conforms to any shape or body size.

Again, compresses evenly across the entire surface and then it's in constant contact with more nerve. And so what was interesting about that is weighted blankets for sleep all night long are a beautiful thing.

But remember you're sleeping hopefully hours under it will if it's too heavy or not evenly distributed or you have added poly fill, or if you are adding a duvet cover to it, it really becomes a hot mess.

And so then it can feel good for a little while. But we want that beautiful experience for the entire nervous system to literally soak that in, enjoy it, kind of embrace it, and just fall into that yummy feeling of safety.

And then the question becomes, well, what about if you're in an upright position? So weighted blankets are great for sleep all night long, but what happens when we're in an upright position?

Well, we need to still activate more nerves and have it safe. What we found in all of this was that we could use less weight, more effectively versus more weight.

And that was just super important for me personally because of my daughter who comes from trauma and abuse and neglect before we adopted her. And she was restrained, if you will, and I did not want a restraining product on her.

And so when we started looking at weighted blankets and then a weighted wearable for her, I was kind of like, okay, wait a minute here. I don't want her to be tied down or weighed down when she stood up with her feet, the weighted blanket fell off of her.

And when I looked at the weighted vest on the market, the wearable part of it, it was rocks in the pocket around the

perimeter where it just kind of made you feel really heavy.

And I thought, well, that's not what Dr. Temple Grandin talked about when it talked about deep touch pressure. And so when we look at this deep touch pressure, we think it's just something heavy.

But really, her squeeze machine was about the user going in lean and with a kind of like a blow up, you know, like a blow up cushion, if you will. I don't know if cushion is the right word.

And then one on top and the body laid in it, and the user could control the amount of pressure. And she said, Let's have it conform to any shape. Let's make sure it compresses evenly.

And oh, by the way, for that deep touch pressure to continue to input, let's have it be consistently in contact with more nerves. And that was a real big change for me.

And I thought, okay, what am I going to do here? And so I created a tape wearable cape for my daughter, which is why we're called capable weighted products.

And then the powerful ness of that word is that everyone can reach their capabilities no matter what that is. And as I looked at this, I was like, well, going back to the 10 to 15% body rule with total weight for a blanket, that's not the same as it should be for a wearable.

Medical Applications and Hospital Study Results

But then it was like, okay, is that a £30 king size blanket or £30 small black blanket? And it really ended up being the distribution of weight, like Dr.

Temple Grandin did in her research of what is deep touch pressure, and then, of course, did a lot of research in what does trauma due to the brain a bottom up approach.

How do we then with Dr. Stephen Porges, with the poly vagal theory being able to make sure that we're connecting, we're safe, our nervous system is regulated so that we can then relate and connect and then reason, if you will, with Dr.

Bruce Perry's model. So and when a person has a more regulated nervous system, I mean, I'm just thinking as a medical physician and working for years in the hospital, there's surgery all the way to addiction medicine.

And I have seen all of that. And it's it's a wide range, but everyone really is coming in with a dysregulated nervous system. Yes. And the power of being able to have a tool that regulates their nervous system in the moment they don't have to wait to go see their therapist and talk about it.

They don't have to wait until they can take a bath or take a nap or whatever it is later on. They need something right now, in the moment to help regulate their systems, especially as they're maybe in the ICU.

Right. Like there is a lot of fear in the hospital. Yes. A lot of dysregulation with that fear. And I can only imagine the impact that something like this would have on people in the medical system, even in the hospital with illnesses. Yes.

Well, you are you just you just touch my heart because I'm so excited about this, because with the technology of smart weight, we then infused it into a medical grade application so it can be used in any health care facility.

You just wipe it clean with all hospital grade cleaners, it can go from patient to patient. Now, what you see behind me is that soft, plush, it's all machine washed, tumble, dried, one piece construction, easy on, easy off.

So you've got your weighted blankets per night, then you've got your weighted wearable throughout the day and we'll talk a little bit more about those.

But then the medical grade application, it is being studied and used within different hospital systems across the nation. And so the very first controlled IRP study that was conducted using the capable weighted medical grade application was in oncology, those that were receiving chemotherapy.

And as you said, right away, they're walking in and those treatments and the anxiety levels are just so high. And so that was started out as a pilot study that turned over into a crossover study, and it was with 59 patients.

The results were so astronomically significant in those key values with the VAS scores as well as the s t your medical doctor, your know what that is, those scores and the P values were point zeros zero eight in showing that only our blanket that application that smart weight technology was allowing that patient to feel that regulation and that lower of anxiety sense.

Then they published that in the clinical journals of oncology nursing in August of 2020, and then from there then other hospital systems were like, Oh, we see some studies have been going on.

So we have several other controlled IRP studies that are happening with or clinical trials within the hospital system within oncology. And then I recently just returned back from Virginia where a health care system did a month long clinical study trial in ICU.

And what was so exciting about the study is that, well, there's two things. One, what it did for the patients, but to what the nurses, how they felt about using the product on the patients, the ease of it, but then also how they would use it on themselves and how it felt really, really good being in that high stress environment of being a caregiver.

Right. So in the ICU trial, 100% of the Ross scores lowered. Of all the patients, 100%, 62% lowered in restraint use, 64% lowered in a patient receiving PRN drugs to lower agitation.

And those numbers feel so huge to me, but I'm so grateful for it because not only for the patient themselves, but then for the care of the patient that the nurse was able to see and then also helping them to do their job the best that they can.

And so, like you said, they are walking into these medical procedures, not only coming off of a world that's been in high stress and high anxiety, but now we're looking at these procedures.

And what I discovered is that medical community is looking for a non pharmaceutical, no drug interaction, intervention and they can put it on and they don't have to wait for any drugs to kind of come out of the system before they do something else or add something else.

But they're seeing results with this application. They're wanting to try weighted blankets, but all weighted blankets are not created equal. They don't have what we have with our smart weight technology.

But then they're one in a medical grade, just white clean application. So it can go from patient to patient and and pass infectious control disease with the hospital.

Because the fabric is a health care fabric. It does. But what I'm finding and why I'm here with you and why this is such an important topic is that they don't realize that always blankets are not the same way that blankets of what is out there, what's mass produced, what is you can buy anywhere is really not the same as the capable weighted blankets and wearables with the smart weight technology.

And until you really understand the underlying nervous system and especially like the poly vagal theory, right, and this sense that our nervous system is constantly collecting cues from the environment and it's either cues of danger.

Cues of safety. Yep. And when you have uneven distribution, that will create cues of danger. Yes. And so it really is until you understand that, you might think that all weighted products are just another weighted blanket that look for the cheapest one out on the market.

Right. Right. The sale today. Right. Right. But when we understand this, we see that now, like not only is the weight important, Marna, but then especially with the poly vagal theory, we understand how important movement is. Yes.

Restricting movement movement will actually promote the nervous system going into that collapse and that dorsal vagal response. Yes. There's just this, you know, kind of like internal paralysis and there's inaction and everything slows to a stop and our fluids in our body just kind of slow down.

And so being able to maintain not only to the cues of safety, but maintain movement of our system is essential for us really being able to continue our healing journey as as we're wearing these weighted products.

Right. And then the other unique element of this is that because we distribute the weight every two inches, now we're going to talk about pressure within that two inch square.

So we can actually, depending on how many nerves are being activated like a blanket, we're fully covered. We're touching more nerve points, if you will.

And from there, we can then use less weight more effectively. It's almost like concentrated soap, if you will. Two drops is equal to a fourth of a cup because we're activating more nerves.

But again, that pressure then is a really important piece because, one, you want the freedom of movement and the equal weight distribution. Well, what if we're touching less nerves, like a scarf or a vest or shoulder wrap or a lot pad, depending on the dimensions of the product and less nerve touch.

We can actually put more pressure in those two inch squares to activate it and kind of just knock a little bit more firm, if you will, on the body.

Using Weighted Products for Focus and Daily Regulation

And it's every two inches which falls between that parameter of how you can tell that. To your point, discrimination is one finger touching you two or a full hand.

Anything that goes outside of 1.5 inches and 2.5 inches means that you can you can feel but anything within that time and within that space, we really want to be able to know that we're getting that pressure within that two point discrimination, if you will.

So there's a reason why it's two inches. There's a reason why it's distributed. There's a reason why we use a bigger glass bead, if you will, so that we can reach that third layer of the skin to get to that nerve receptor.

And then there's a reason of how much weight we can put in every two inches to depend on what kind of product it is that we're making. So what I've noticed is I wear my wellness scarf and I will use it throughout my day, but also traveling to make time for me to use that.

And what I've noticed is that kind of similar to what you're talking about, I can use less weight, so less weight than the other products that I used to wear.

So it's less weight and I feel more resilient while traveling. Like I feel less tired when I get to my destination, but I'm working within my wellness scarf and I and, you know, this made me think of of when you were talking about the ICU nurses and the and I'm like this.

This is for really being able to help a person go through their day just feeling more resource because they have this even distribution, they have less nerve contact.

They have this constant sense of deep. Yes. Yeah. It's almost like these messages to your brain all day long of like we've gotcha. We've got this thing.

Everything's good. I'm holding your hand. Right. You know, we jokingly say we get on your nerves and we stay on your nerves in the best way possible. You know, we all talk about how everyone's on our last nerve, right?

But the reality is, how do we keep ourselves regulated in an upright position? You know, we know we need better sleep. We need better restorative sleep, right?

We need that. But at this and sleep is going to be a foundation piece for throughout our day. But what happens when you aren't getting that sleep or it's not the best?

You know, we want to solve that problem. And I believe we did that with the best distribution of weight with our product. But throughout the day when my daughter stood up at her feet and the blanket that I made her fell down at her feet, I went, I've got to get her out of the front door.

What do I do to create something that helps regulate her nervous system? While were out in uncomfortable situations or overwhelming situations. When she needs it the most.

The most. So that really became then the question of pressure. Well, you know, we're not going to carry our backpacks and our purses and our selves, you know, and and be so heavy.

So again, it came to how do we bring it in for that nerve activation, keep that steadily inputting. And I have to tell you, just recently, I also created a dental blanket for those in the dentistry, because we talk about dental fairs, dinner for dental phobias and dental anxiety.

And my daughter does have a cleft lip and a cleft palate. So we do have those issues we are contending with. Well, I ended up having to be my own patient and I brought the dental blanket in and I brought the the medical fidget with me.

And because I'm just like, I don't want to, you know, and I have to tell you, it was the best experience I had had in the dentist in years. I couldn't believe how here I was in a vulnerable position.

Right. And what is happening in the hospitals? We're all in these vulnerable positions and throughout the day and all that. So here I am in this vulnerable position and I'm here hearing the noises and, you know, feeling it and things are numb.

But I had literally the input just like a beautiful, I don't know of of an embrace in over my body. And it just literally kept me grounded and it was just such a good feeling.

And that's what I want for those that are going out and about, whether you're in your car commuting or you're on a zoom meeting or you're in a classroom or you're having to study or you're at your office, I wanted something that was kind of a no thought.

Just put it on and yeah, add some fashion to it as well. Because one, how do you make weighted products fashionable and and yet be very, very effective?

I wanted a safe and effective weighted therapy, whether it was for sleep all night long or a weighted wearable throughout the day, or a focus tool like the magnetic focus fidget that needed to happen depending on what the user is encountering at the time.

And I'll just do that. As you're saying, what I'm also thinking of is parents or parents taking their kids in for blood draws or anybody going in for a blood draw.

Right. Like this would also be another necessary time to have something that just regulates your system as providing those cues of safety while you're in the middle of this and can help you go through this.

But I will say that as much as the capable products have helped bring my system down in times of activation, it also

does help me focus more now. And so I will say that and actually I have it right here.

I have my wellness graph right here and when I need to focus so this is when I need to go into my deep creative cave. I usually go into a creative cave for like 3 hours at a time when I'm creating my next course or whatever it is I need my next summit.

I go into my creative cave and I've noticed that if I have this wellness staff on an and I also grab my fidget. Okay, yes. This helps me focus. It doesn't it doesn't relax me to the point where I'm just wanting to sleep or I'm just thinking like I'm like, oh, forget that.

Forget creating and working anything like it helps me focus and I get more done in my creative times when I am resourced with these products. So why? Why is that? Why would it not only just help with relaxation, but actually help with the focus?

So the sense of. Productivity, like it's a secret. Right? And you know, you just hit on something so important. A lot of people think, well, if I put this heavy item, it's just going to relax me, make me fall asleep, and I'm not going to I'll be out the rest of the day.

Right. So there was that certain amount of activation that needs to be not too much, again, using less weight versus more weight. So the focus part of it is the grounded and the safe feeling and then the brain can start activating again.

If we go from a bottom up approach, we have to regulate before we can relate if we are going to be relating with other humans at the time. Right? But then we need to reason and in order to reason and get the brain get to that functional frontal part for executive functioning, the cause and effect, the focus, all of those things.

That's what we want to move it up from the back of the brain or the entire nervous system being regulated to go up again. When I think of regulation and there's different scenarios, we're talking about focus which would be up here and relate is where we're connecting with other humans right?

So or co regulating and we want that co regulation and that is so important because how many people have ever calmed down in the history of calming down by someone telling you, calm down?

And so we really want to feel that regulation in our own systems and and, you know, the beauty of the nervous system is it's doing its job, right? So that is where, again, I always give this example from walking down a dark alley by ourselves and we hear a click and a sound and as something we're not just going to spill so safe here.

And this is just wonderful. Our nervous system, what immediately responds, well, I wanted the same thing to happen when our smart wait was applied. That's why the even distribution and the right amount of pressure every two inches was so important, not only for it to be safe and grounding for a nervous system, but then for regulation and feeling safe, whether it's with other people.

But then to get to the focus part. And so that fidget that you have, it's a magnetic focus fidget. And that's the clue. It's got magnets in it, right.

Well, that attraction of the magnets and the resistant of the magnet and that tactile input with our fingers, it's actually raising that awareness of, oh, what's what's going on here?

And it's really pleasing because then you also have the softness of the fabric and the different textures that we can feel. And so that makes it wonderful.

Then you add the fact that you're wearing the wellness scarf, or for me, one of the things that I love wearing while I'm at the office is the shoulder wrap.

So the shoulder wrap is exactly that. It's a little bit of a bigger piece, but super simple to put on like this. And it is

telling those muscles. Remember, our muscles also have muscle memory, right?

And what are we doing? Most of the time we're tense. We're kind of we're on our phones, we're on our computers. Were grasping the steering wheel and we don't remember to just breathe, just breathe.

And it just instantaneously because it feels so safe, it just brings that and sends that beautiful signal to the brain. And the beautiful brain knows what to do.

And say when we when we provide the sense of safety, the brain is like, oh, I can focus on other things now. Yes, I can actually work. I can focus on my schoolwork, I can relate.

Yeah, I can sleep, you know. Yes, yes, there are. It just opens up so much when in the background in what is usually unconscious to us. Yes, but there's a false sense of safety and the the power the power of that and the power of these products with the smart way to do just that and make it easy for us.

Yes, easy.

Closing Thoughts on Trauma-Informed Weighted Therapy

Right. Just make it easy. Just throw it on. Just make it easy for yourself to walk around with a felt sense of safety so that your brain now has the space to focus on anything else and everything else that you want to do in your day.

We did products had to be brought up to current neuroscience today. It did how the weighted products started way back in the day. It was focused on behaviors, focused on control, focused on more weight.

It was meant to replace the restraint, but then it ended up acting like a restraint because of more weight. And I often say, you know, I'm not a rocket scientist, but I did pay attention to the details and I did do my research.

And that research started because my daughter came from trauma. What happens to the brain when we live with developmental trauma? And that is really what spurred this on to make a change in the weighted therapy arena.

And then also what happens when you need something throughout the day. Stress happens throughout the day, anxiety happens, worry happens, all the things that we're feeling.

So what can we do to regulate and to regulate those nervous systems ourselves? So I often say we're easy to wear, we're easy to care, machine wash, tumble dry, and then we're easy to use.

And you can have it at your in the car, on your bed, on your couch. It's just an easy product. But the science had to be current and it had to be current to what we know today about our entire nervous system.

That vagus nerve is so important. What we understand about trauma, the brain it needed to be a bottom up approach. And then what? What does it really mean to regulate?

And and what does that neurobiology of our entire system? It's not it's holistic and it's whole. It's not compartmentalized. So I think this is a game changer and a life changer.

And when I'm thinking of all of the people who would benefit from something like this, it literally is everyone. So I'm thinking of the professionals who are listening to this summit.

And they they're like the ICU nurse, right? Like they're taking care of other people. And to be able to wear something, just have something that they are wearing throughout their day would actually help them get through their day without being so tired at the end of the day that then they're crashing and not being able to relate to their family or to their friends.

Right. And even being able to have these products in their office for when their clients or patients come in. And I

imagine how much more work, whatever that work is, if they're on the allied health side of things or the mental side of things, it wouldn't matter because you're able to actually connect and work so much more because they're also now providing who are having a felt sense of safety.

When you look at teachers, you look at students, you look at. Yes, I mean, you look at parents, you look at caregivers, you look at the sick, you look at children like I don't know anybody who wouldn't have their life changed by something so easy to use.

Yet that makes so much of a difference on their unconscious, autonomic nervous system that's been driving their life and been coming from a place of anxiety and fear.

Absolutely. And what has been a concern for me is how do we offer current neuroscience weighted therapy products to all of those individuals? And it not just be touted as another heavy product or more weight or just a weighted blanket because we're not going to be carrying our weighted blankets around the rest of our lives.

Right. That's why we have the scarves and we have that. And then also, just like you said, the caregivers the nurses in the hospital during COVID one hospital system and one department was actually wearing the product themselves.

We have a weighted medical grade vest. They were able to wear that themselves while they were on the floor caring for the patients. A newer study that just finished with 149 patients was in pre surgery and our blankets can be warmed up in the warming of it and so they can go into the freezers for cooling down.

So all of the blankets in the medical community for all of those caregivers, all those professional health care providers were are able to use that. And then those of us that have precious children, elderly parents or ourselves that were going through what we are, it's all very, very, very useful. Yes.

I love when we can get practical and there are tools that we can use for our nervous systems to help that regulation. And I love I absolutely love this technology and how truly trauma informed it is.

And so I hope that you will look into these tools, and I hope that you will also resource yourself with purchasing these recordings so that you can have them at your disposal and not be stress about trying to listen to all of them, but be able to have them.

And you can listen to them on your own time and in your convenience so that you're not rushed or stressed. And with that, thank you for joining me for this interview.

I am your host, Dr. Aimie. Please invite others for this summit. This is a free summit and there are still opportunities for them to join. So friends, family members, colleagues, those people who would find value in this information, go ahead and invite them.

And this is the Biology of Trauma Summit 3.0. Talking about the trauma disease connection. And I will see you on the next interview.