

- [Jim] And with that, I will turn it over to our presenter, Ruth.

- Okay.

Hello everyone.

I am very excited to be here with you all and I'm gonna go ahead and pull up the PowerPoint for today.

Whoops.

Here, lemme, just a hint.

There we go.

You all can see this.

So today I'm going to be talking about how do we learn.

Engaging individuals with a variety of needs across the lifespan.

So I'm very excited to share what I've researched and things that I've found in my own practice with you guys, and I hope it's really helpful for you guys as you work with the individuals that you do.

So just to go over the objectives really quick.

I want you guys to examine some different learning environments and explore your own preferences.

Identify five different areas of the brain and their respective symptoms, when the brain's not functioning optimally, and just how important this is for learning.

And then also identify two ways in which you can support individuals with ADD or high anxiety in treatment sessions or even in the classroom.

And then my overall goal too is today to, that you guys will experience a learning environment, which is trauma-informed and seeks to understand your needs as you learn about how to engage others.

And so this piece is very important to me too, and I'll explain throughout this presentation why this is so important whoever we're working with and that we take this into consideration.

So just a little bit on the outline.

It changed a little bit from when I first shared this, but I'll introduce the topic and myself and then you'll see a couple keywords here regulate and engage.

And so I have specifically put that because, I'll explain it in a little bit why I have these here.

And then overview of learning.

And then I do have a place to rest attention because it's so important when we're learning, especially across such a long period of time, an hour and a half, that we give our brains a chance to rest and be able to learn the information that we've been hearing.

Then we'll explore the brain areas.

We'll explore ADD and rest attention in there as well.

Then I'll review some additional research and resources that I wanna share with you guys.

And we'll do some Q&A.

And I might do some Q&A as well during the actual teaching portions just to make sure that I'm answering any questions you guys have.

So I'm gonna introduce myself and the topic.

And right here I have regulate and reach.

So this is because it's so important, whenever we're learning that we're regulated and also motivated and feel connected.

So that's what this portion of the presentation is meant to do.

So a little bit about me.

I have my Cs from ASHA.

I'm a speech language pathologist.

And then I just needed to close any financial relationships.

So I'm employed at Mountain West Speech Services, which is a clinic up in Wyoming.

And I'm also employed at a rehab center in Colorado.

I'm receiving a stipend for this presentation.

And then I don't have any relevant non-financial relationships to disclose.

So I've been a speech therapist for eight years and I've worked in a variety of settings.

I've worked in at an ABA school, I've worked in a special Ed co-op, I've worked in home health,

I've worked in rehab, I've worked in, and now I'm doing outpatient pediatrics.

So that's been most of my focus has been in pediatrics and school aged children.

But I have worked with adults as well.

I also completed an additional year of mental health counseling graduate courses because I wanted to be able to better support my clients and their families.

And so you'll see this is also playing into the presentation and the information that I wanna share with you guys.

So I really like treating individuals of all disorders any kind And I specifically have a special interest in AAC, ADD, and autism.

So those tend to be the ones that I gravitate towards and the kids that I really get.

And I love to see individuals learn in a way that's respectful of them, their unique styles and guesses people.

And I love seeing their personality shine through.

And of course we have to have fun since you work at PEDs, gotta do that.

That's the best part.

So I want you guys to just put in the comments like what's your profession, whether you're a parent or a speech therapist or an educator, and what setting you work in.

And then I also would just want you guys to mentally note like, what is your goal in this presentation? What do you wanna get out of it? Because at the end you can review this and see if that's actually what you were able to get.

Okay, awesome.

A lot of speech therapists.

Home health, schools, and OT.

Awesome.

Well, I'm excited that you all are here.

Wow.

Yeah.

Okay.

So I love Cari Ebert has this great little sequence of steps that she shared on her Instagram.

So I have her handle up there, but I got this from Instagram and I love this.

So she says this specifically for the sequence of steps in supporting autistic kids that you reg, you make sure regulate and reach and then teach.

But I've noticed, like through my work, it's not just autistic kids, but this is really with everyone because if someone's not regulated, it's very hard to have them learn anything.

And if they're regulated but they're not interested or not connected with you or not interested in the material, it's also very hard for them to learn.

So this is just a great little visual that can really help you seek to kind of figure out, where am I at with this kid? Are we just regulating right now? Or am I working on that connection so I can teach them? And you go back and forth, it's not a linear process.

So a little bit about me.

I wanna just tell you guys a little bit about myself and a little bit about my story.

So I have had some major traumatic events actually happen in my life, and they came to a head about three years ago.

I got out of an abusive relationship, I ended with medical issues, I needed care.

And it started me on a trauma healing journey, actually.

So I was very dysregulated.

My body, my emotions, my mind.

I couldn't regulate myself for a while.

I had to have someone actually co-regulate with me, which is like kids have to.

And so may seem like a very humbling experience and it kind of was, but really looking back, it was really something really authentic, like something that children experience on a daily basis, honestly.

And it really gave me a glimpse into the dysregulation that children experience and really can't communicate oftentimes.

So I started actually learning about my inner child, which is very common in the trauma healing literature and in the community.

And so like I have a little girl, and this is just, it might sound weird if you're not familiar with this, but just hear me out.

It's actually quite interesting.

So this idea that you have an inner child can actually give you insights to your own story or like what you wanna do, your emotions.

And if you're able to connect with that, it also helps you as you're able to connect with your kids.

So I started asking myself like, what is, like, what does my little girl want? How's she feeling? What's she thinking? This was part of my journey into actually learning how to regulate myself better.

And it's basically asking yourself like who you really are inside.

And so as I was preparing this portion of the presentation, I just like asked myself as I was typing it out, and I wrote down, like immediately the first thing that popped into my head was to dance in the rain and splash in puddles.

Now that sounds like a very like kid thing to say.

And I was like, oh, that's cute.

That's probably exactly what I wanna do.

So I put it to the side and I was doing came back to it later to really like flesh out what I was going to say during this portion of the presentation.

And of course it's pouring outside.

As I literally sit down to like write this part out I see it's just pouring outside.

And I see this part of my notes from prior, and I'm like, you know what? I just need to go outside and splash in the puddles because that's what I actually have wanted to do.

And so I did, and it was actually quite a fun experience.

And I wanna share that with you guys specifically because as adults, working with individuals, a variety, variety of ages, variety of needs from the chat, I can see that sometimes we have these rules and barriers that we have in our own minds because we're like, well, you don't do that because.

'Cause things that I heard was like, well, you don't do that because you're gonna get wet, or you don't do that because you can get hit by lightning, which is such a traumatizing thing to share as a child too.

But you can end up just losing out on those experiences.

And so sometimes kids may actually suggest things to you like, wait, can we do it this way? And sometimes we can have these own rules or these little barriers that we have in our mind as adults, and instead of realizing that like, oh yeah, I guess we can, like, that's actually totally fine.

And they might actually be asking you that because that's how they actually will best learn.

So I started realizing too that my own dysregulation and lack of education about my own regulation started in childhood.

So as I realized that I started really seeking to change the way that I interacted with my clients and use it, the words that I used with them and started to teach them, like, how is your body feeling right now? Or what is your brain need? As I started educating them about the brain.

And I recognized that if I'm able to teach them about their own dysregulation and their own, like how they're feeling, what they need, what they want, and teaching them how to communicate that, like, isn't that ultimately what we wanna do as therapists and as educators, is we want to actually help kids advocate for themselves and help them understand what they need and the way that they're feeling.

What their bodies need, how their emotions are.

And so especially if we work with individuals who use communication devices and have AAC, it's like how amazing is that, that we actually are able to teach them, what they actually need and to be able to communicate that.

And so I just love that it all fits together.

So and a huge part of this regulation piece and actually teaching kids about regulation is actually understanding how the brain works.

And so this is what I started researching a lot, and it really reignited my passion to learn about the brain and how to support it.

So I want you guys to try something.

It might seem a little weird, and some of you guys may have, may feel like this is super normal part of your life and have a lot of experience doing this.

And if that is, if that's you, that's awesome.

You're very fortunate actually.

And so I just want you guys to take a second and check in with yourself.

I think sometimes as adults, we don't do this enough because we're adults.

Like we have it all together.

Like we know because we're an adult and that's not really true.

So I just want you to actually take a minute and check in with yourself and just, you can close your eyes if this helps, but just think about like, how is my body feeling? And you might have like, you're like okay.

However it feels it might be like, like I'm a little anxious because I'm presenting.

And so that's pretty normal.

How is your mind feeling? How are your emotions? So even just asking yourself and sometimes just taking that minute can actually, or you might be like, wow, I'm thirsty.

Or like, I'm really hungry right now.

Sometimes we can go through so much in life that we forget to just take a minute and check in with ourselves.

So here's a feeling chart.

I found I like this.

Sometimes if you're like, I don't know what I'm feeling, you could look at a feeling chart with lots of different words and sometimes certain words will jump off the page at you or you can look at it and be like, yeah, that's totally the one that I'm feeling right now.

And this can help with kids too.

Sometimes pictures, pictures like sometimes can help, but everyone's feelings look different. They don't all look the same.

So sometimes that can be hard with kids.

So I want you guys here.

So now that you've checked in with yourselves.

So this is part of that regulation piece.

And sometimes if you're feeling tired or groggy, if you have low energy or even if you're feeling anxious, I want you to try something and I'm gonna show you because this is what you do when you're teaching.

So you can try standing up and actually moving your arms up over your head.

Now it may feel kind of weird because I'm not doing jumping jacks, I'm literally just moving my arms up and down.

This can actually help calm your nervous system, and it feels actually very calming.

And it can also help you like get blood flowing, which can help you feel like you have more energy.

If you're feeling like jittery or anxious, you can't sit still and focus feeling like this on like, kind of like buzzing.

That's the best way to describe it.

You can try taking deep breaths, or standing up and walking side to side if you're able to.

And now I just wanna make a comment on this part.

Sometimes you might notice that kids will actually do this when you're working with them.

They might like all of a sudden get up and start like rocking from side to side.

And it's highly possible they're trying to regulate their body.

So you might be like, well, why are they getting up from the chair right now? Or like, they're supposed to be sitting or.

And it's maybe because they're trying to keep themselves awake or they have energy in their body that they're trying to get out because just moving can help the energy get outta their body.

So it's not feeling back inside.

And then even if kids are, or if you or kids are feeling angry mad, deep breaths are huge. Giving yourself a hug, giving yourself that like pressure or even making frustrated or angry noises.

So one of the things that I did that was kind of fun.

So I actually created this song like, if you're happy and you know that if you're happy and you know it song well, I decided to do it to all the emotions.

And like, what are things that you actually would want to do if you're feeling a certain emotion?

So I did, like if you're mad and you know it, you stomped your feet.

And I mean this is, you can find these little songs on YouTube, but I just make made my own.

And so one of the kids that I worked with, she started going around one day and was like stomping her feet everywhere.

I was like, I don't know why she's doing this.

Maybe I taught her that to do that when she's feeling mad.

And then I also just put up here, here's another method that you guys can use for grounding, which can just help the person feel like a little more secure and stable.

It's better for like older students or adults.

That's five, four, three, two, one.

So you just go over five things you see, four things you can touch or feel, three things you hear, two things you smell and one thing you taste.

And it just helps to calm and bring you into the present moment.

So now an overview of learning.

So I want you guys to think.

So now this is the part I where I wanna really engage you guys, and I want you to think about what causes change.

So think about your own life.

Like what motivates you, what's your fire? What makes you want to be a better therapist, a better parent, a better partner, a better human.

And a lot of times, when we think about something like that, we can have a lot of different things come to mind, but it's so helpful to have this and think about this maybe even on a regular basis.

So we understand why am I doing this and what really am I motivated by? Because it can help us, one day your hard, or even just so we know really what do we wanna do.

So what I want, I'm gonna share with you.

I wanna be a kind, genuine person who seeks to understand my clients, my families, and my friends.

And I want to help my clients learn in a way that's meaningful to them.

And this has been the way that I thought since I was in grad school actually.

I wanted them to remember it.

Remember someone who cared enough to see like what they were thinking about, what they were interested in and that use that to help them learn.

And someone who just genuinely cared about them.  
So oftentimes as therapists, we can come in with an agenda.  
I mean, this is what we're taught to do too, have goals.  
You're gonna learn your, the CH sound today like, or where you're gonna learn your snake sound.  
Like you are gonna work on core words today, you're gonna work on WH questions.  
Like we can just have this agenda in our head, this is what they are going to do today.  
Sometimes that's not what the kid's thinking, frequently.  
So what does it mean to walk into a therapy session with an open, willingly mind and an open heart? So sometimes that connection piece, sometimes we can miss out on that because we're so concerned about this agenda that we have in our head.  
And, I've seen this with a number of my kids.  
I have one kid in particular that like, she had her own little unique way that she learned and she would learn her sounds.  
But I had to step back and be like, don't push coach and guide.  
And then she would end up getting more practices than most of the other kids I've worked with.  
And we were working on specifically like articulation sounds.  
But she would literally start singing the sounds and singing the words.  
After she felt comfortable and I coached her and she like knew what she was doing.  
She would just start singing it and going around the house.  
And it was, but it took me to step back and be like, hey how is she learning? What is she like?  
And and being able to step back and let her learn instead of me kind of pushing her in a way that she wasn't interested in or didn't want.  
So I want you guys to think to just of your own life, who has made the most impact on you? And then who's made the most impact in the last week and who's made the most impact yesterday? Oftentimes when you think about it in different time periods like that, your answers will change, but sometimes it can just help.  
Like for me, because I wanna make an impact on my kids' lives, like helps me to think, okay, wait, who has actually made an impact in my life and how can I be that for other people? So we're gonna do a gratefulness exercise and then we're gonna get into the brain areas.  
So I want you to think about five people in your life who've made difference and why.  
So sometimes when you think about five different people, if you think about them right now, it can be people who you think have made a positive impact on your life or people who have maybe impacted your life in a negative way.  
But you might still be grateful for them actually because it's made you who you are.  
But I want you guys to write 'em down just for yourself.  
It can actually, it just helps solidify in your brain and it also is a good exercise if you share 'em with someone that's even better.  
But practicing gratitude actually makes you a healthier person.  
So this is something from Dr.  
Amen in one of his books.  
It makes you healthier, more optimistic, makes progress towards your goals, it gives you a greater sense of wellbeing and it also makes you more helpful to others.

But if your brain is in a state of fear, you actually, they actually have shown that there's decreased cerebellum activity, which means that those motor movements and planning is more difficult.

So sometimes it can make you clumsier and then decrease left temporal lobe, which is actually your memory and language side of your brain.

So it actually decreases your activity in your brain.

So practicing gratitude actually increases the healthy good activity in your brain.

So I know this kind of, these slides kinda bounce around a little bit because I wanna touch on a lot before we go to the brain 'cause this is really setting the foundation for everything.

But if there's one thing, if there's one thing you take away, it's to listen to the child.

So I love this picture that I found.

One of those like free outsourced pictures, but I just love it.

So ultimately you just think about this kid.

It's like if you're working with a kid, like what are they saying? Whether it's with their body, with their facial expressions, with their movements.

What things that they're bringing in to show you or things that they're interested in.

What are they saying? What are they interested in? Sometimes honestly, the best thing you can do, if you wanna know how a kid learns, watch 'em and then listen to what they have to say.

Because they might be like, can I do this and this at the same time, because that's actually how they learn.

Or can I take a break maybe 'cause they need one.

So it's just if you do anything, do this.

So really it's your, everyone's humanity and it starts with you first recognizing your own and appreciating your own humanity and being able to then also appreciate the humanity of the individuals you work with.

I'm gonna throw this out here.

The Maslow's Hierarchy of Needs.

I think we're all pretty familiar with it, but it goes along with Carrie Ebert's little sequence of steps.

'Cause you really have those basic needs, that regulation piece and then you have this connection piece and these psychological needs and having that connection and then you're able to learn.

And it goes back and forth, but it's just something to always keep in mind, 'cause sometimes we can be trying for the top of the pyramid, the top of the steps and they're just all the way back at the bottom.

So you need to go back.

If you're really hungry, really tired or really sad it's very hard to focus a lot of times on something and try to learn something.

Gotta take care of those needs first and then you can go back and learn it.

So when kids are the same way.

So you can be a problem solver, ask questions and be willing to explore ideas so that you can actually understand what they need and how they're learning.

So I want you guys to think of yourself as an elementary school kid.

Or remember like what it was like when you were a kid.



And I want you to think, okay, I'm gonna describe two different classrooms for you and I want you guys to think of which one you think you would learn better in.

And it goes in with what we're gonna do and talking about the brain.

So classroom one.

So classroom one, this is the blue circle.

So you go in there, it's very organized, everything's very organized.

Everyone has their own little drawer system.

So you know your, this is your drawer system.

It's like from the top, the beginning of the day to the end of the day.

You go in there, it's, you just go over there, you pull out the top drawer and it has your folder in it.

It's math, actually it's time to learn math.

You go and you sit down at your desk and the teacher's up in the front of the classroom and she's teaching everyone or she's teaching, they're teaching everyone the same thing.

So this is how it goes, it's very organized.

And then there's classroom two.

So classroom two, it's maybe more brightly colored.

There's interesting pictures on the wall.

There's different workstations and there's a teacher at each workstation.

So it's smaller groups.

There's hands-on manipulatives and you know it's a day.

So you go to this specific table and you're gonna learn math.

There's different manipulatives to learn math.

So I'm gonna pull up this poll here and I want you guys to just click which one you would rather learn in and then I'll explain how it's related to these brain areas we're gonna be looking at.

So it looks like we about have everyone.

It's so interesting.

So honestly it's about split between, I prefer one, I prefer two, or I prefer both.

Like both of 'em sound good.

To me, I agree, depending on also what subject I'm learning, I would probably wanna be in one classroom or the other.

I'm gonna go ahead and end the poll here.

Here I'll share this because it's interesting.

Just so you guys can see.

So it's pretty much, I mean it most people, like a few more people prefer the second one, but it's actually kind of evenly split and then, or both.

So I want you guys here, let's see, I'm gonna get outta that.

There we go.

So I want you guys to actually, so I'm gonna share something with you guys about these two different classrooms.

So classroom one.

So there's a couple different brain areas that you actually may have higher functioning in or higher levels of activity in.

If you tend to like classroom number one.

It's possible you tend to have more brain activity in the basal ganglia or the anterior cingulate gyrus.

Now those might sound like terms, we might be familiar with them or not.

And then with classroom number two, it's possible that you actually have differences in your prefrontal cortex activity.

And this is not across the board, this is just something to think about.

As we go through the brain areas, you'll see how certain brain areas, when they're functioning a certain way, they tend to gravitate towards this classroom one.

And then other brain areas if the person has more or less activity in that area, they may tend to gravitate towards classroom two.

And then there's some, we are gonna have a mix.

So it's cool that we see that even just in you guys who are participating.

There we go.

So we're getting ready to move on to the brain part of the presentation.

So I just wanted you guys actually to just look at the picture or close your eyes and rest your attention.

The idea behind this is that you don't even think about anything that we are just talking about and you purposefully and intentionally don't think about anything and let your brain rest.

And you might feel yourself relaxed, maybe not, but it's actually just a way to let your brain rest make connections that it needs to before we move on, 'cause this is a lot of information.

And the research on like how long we can actually sustain attention and learn actually has varied a lot.

I mean, something that I heard recently was like, was on a podcast that I was listening to was like, if it's new information, adults can only handle about 20 minutes before their brain literally just can't even take in anything more.

So it's like, if we're learning something completely new, which hopefully a lot of this is just interesting or review for you guys this first part, but the second part it might be kind of like a fire host.

But I hope that you guys are able to get, especially from the handouts that I'm sharing with you guys, able to get a lot of good information that will help you.

So a lot of what I'm sharing in this next portion, which is the teaching portion is based on Dr. Amen's books and his work.

So the first book is Change Your Brain, Change Your Life, which is awesome.

Which is a breakthrough program for conquering anxiety, depression, anger, and obsessiveness. He has a lot of excellent information.

And then Healing ADD.

So both of these books, I mean if you listen to them it will take you probably 20 hours or more. I can't exactly remember.

So a lot of information that I'm putting in a short amount of time.

So if I go quickly it's probably because of that.

So anyway, so I specifically chose these books and his work because he has written in common sense language, a way that people can understand.

He is a child psychiatrist, but he works with, I mean now he's internationally renowned.

He has over 30 years of experience working with individuals of every age.

I mean he's even diagnosed people with ADD when they're like, I think 80, nine.

I mean I don't even know if he had a nine-year-old, I can't remember.

There was some that were quite a bit older.

I think someone was like 80 or almost 90.

Anyway, but he has done a lot of groundbreaking research in the field of neuroscience and psychiatry and how the brain works and what functions and how to help it function better and how to help if this area of the brain is not working as well or is working too much and how you can actually support.

So he is amazing and he has clinics around the world actually who are associated with him now because he's on, really on the cutting edge of neuroscience research.

So first we're gonna go over the five brain areas and that's based on this book, the Change Your Brain Change Your Life.

So I love this book.

Lemme show you my copy.

Great.

So here's five brain areas and I'm guessing a lot of you guys are gonna be familiar with these and being speech therapists, but sometimes it's nice to have a refresher.

I am not going to go in depth to all the functioning, but I'm gonna spend more time on just what it could look like and what you can actually do in your sessions if you notice individuals having symptoms of maybe differences in these brain areas.

So the five are the limbic system, the basal ganglia, the prefrontal cortex, the anterior cingulate gyrus, and the temporal lobes.

So you'll notice that the classroom one that we talked about a little bit ago, that one I said it's probably more likely that you have higher activity actually in the anterior cingulate gyrus and the basal ganglia.

And it's possibly more likely if you have less prefrontal cortex activity or differences in your prefrontal cortex activity.

Or then you might choose classroom number two can also be just like how you learn, and even your sensory systems.

But the brain areas also tie in.

I think that these brain areas and understanding them actually also are be gonna become more relevant as the increase of neurodivergence awareness occurs.

And just how people's brains work differently and how we actually need that.

And also how we can support people and ourselves whose brains work differently.

It's good to understand how your own brain works.

So real quick, I'm just gonna show you where these brain areas are at.

So the anterior cingulate gyrus is right behind the front part of your brain.

The limbic system is in the center of your brain.

So it kind of looks like honestly like a fist with like the thumb.

So that red and green part.

So it's really in the center of your brain and the basal ganglia is on top of it, and with these little like tentacles attached to it.

Prefrontal cortex is in the front part.

So how do you remember them? I personally like this because it helps me understand the function and the location at the same time.

So the limbic system, you can think of it like a C in the center of your brain.

It's kinda like that C, it's a heart.

It kind of looks like it's in the heart of your brain.

It's actually like the command center of your brain.

It calms you down and it also is connected with your mood.

So it's in the center, it's your heart, it deals with mood.

The basal ganglia is connected to that limbic system.

And if you think about those little tentacles that were on it, it deals with movement and also deals with learning and habits because the things you care about gonna learn about and you're also going to make habits around.

So it's something that's so connected to your heart.

Prefrontal cortex.

This is my favorite one.

I mean how to remember it.

So if you think about if you do a face palm, where do you put your hands? Top of your forehead.

Generally speaking, whenever you wanna do a face palm, it's because you did something impulsively without really thinking through it, because this part of your brain may not have been functioning the way you wanted it to when you made that decision or said that thing.

That's the different part of your brain.

Think of it's the face palm.

And then your anterior cingulate gyrus, it's close to the heart of your brain and it's also close to the part of your brain that focuses, which is the front part of your brain.

So if you think about it, it's the part of your brain that if it's active, hyperactive, it can actually help you hyperfocus.

So that's the part of your brain.

It deals with actually flexibility.

But if it's gets really, really active, you hyperfocus and get stuck on things.

Temporal lobe.

You think about it, if you cover your ears, the brain, it's the brain areas here close to your ears, it actually can deal with frustration internal or externally directed and also encoding information.

If you cover your ears, you can't really hear.

Well if you're temporal lobes are affected, it's actually hard for you to understand the environment, facial expressions and language.

So this, I'm just, I wanna share with you guys is four circles.

This is part of Dr.

Amen's method, but you'll see from the handouts that this is related also to everything we were talking about in the first part of the presentation is these foundational things.

And it's also that we're humans.

So we're not just biology or psychology or social or spirituality or anything that we're like motivated by.

It's really we're a big, we're a spectrum.

And if you guys have any questions, feel free to put it.

And I know someone just raised their hand.

So if you have a question like please feel free to put it in the Q&A and then I'll answer them in a little bit.

So first we're gonna go over the limbic system and I'm going to bring up the handout on my screen and then I'm going to go over it.

So here, get out this PowerPoint real quick and I'm going to...

There we go.

And lemme go over to the limbic system.

So real quick, I'm gonna show you this table that I made for you guys.

This is characteristics of differing activity in a brain area.

You guys can see this? If you can't, please throw it in the comments if you cannot see this because, I think I'm sharing my screen so it should be good.

So I've made this for you guys.

I designed it kind of as basically with all the different handouts that I've given you.

The one for each different area of the brain and for also for ADD.

I've designed it so you could put it in like a binder or a folder and you could have it just like with this page on the front so you have an idea of like these are the different brain areas, these are the different symptoms.

And then also you can go over and actually look at that specific handout.

So let me.

Let me here.

Let me see if I can share it.

Looks like maybe you can't see it.

- [Jim] You may need to stop share and then re-share.

- I'll do that.

Let me see.

Screen.

There we go.

That looks better.

Here, let me pull this up real quick then I maybe not.

I'll show you guys on my camera actually because it looks like I got a bit.

But if you just see the, it says the characteristics of differing activity in the brain area.

This is just like a general handout for all the brain areas and then there's a specific one for each area.

So this one is the limbic system.

So now I think now you guys can see this.

Looks like yeah, awesome.

So the limbic system, that's the emotional system of your brain, it's the heart of your brain, it's also like the command center.

So it actually just highlight for you guys, it actually filters external events through internal states.

So if you think of Inside Out where that little kid with makes you try some broccoli or broccoli on a pizza or something, and then that whole memory was like green because she was disgusted by it.

So in internal state was discussed like that was that emotion.

And so this event also got colored with that emotion.

So that's that emotional coloring.

So this can happen when you have something happen and then you have the emotional reaction which colors that event, or you can have an emotional state already and something happens and then your, that event is colored by your own personal internal state when it happens, even if it's not necessarily related.

So you can tag, it also helps you tag events as important.

So if the limbic system is on high alert or has more activity in this area, this is when it can look a little bit more like depression or moodiness.

And I work with a number of individuals that have symptoms like these.

It can also deal with like, it can also impact memory and they can end up being forgetful.

It can have negative sensitivity to smells and odors because this part of their brain directly processes sense of smells.

So if you have any kids even that have that where they're really, really sensitive to certain smells, it can actually be because of a brain area difference.

So especially if it's in combination with a lot of these other symptoms.

These individuals with higher activity in this brain area can also be sensitive to criticism or lack confidence in their own abilities.

So the general treatment recommendations.

This is not for you guys to be like a mental health professional and treat these people.

Absolutely not.

These are just some things that you can look into to incorporate or to even suggest to parents if you're noticing someone on your caseload has more, has a lot of these symptoms.

It can be something that you suggest to parents to look into or to talk with their doctor about.

But these are specifically general treatment recommendations based on those four circles.

And that is based on the biological psychological, social and spiritual.

These are just different ways of understanding like different treatment methods.

And then so the therapy specific recommendations.

So these are recommendations that I have for you guys that based on the work that I've done with kids and individuals that you can do that can actually help them learn and help that brain area actually heal itself too.

So you can use pleasant or calming smells in therapy room or on yourself and lavender is great 'cause it is actually very calming.

This can be helpful in actually decreasing that brain area activity and also just helping calm them down so they're actually able to learn and they're not stuck on something else.

Incorporate four questions or ANT therapy.

Might sound a little weird.

I'm gonna show you and I'm gonna show you what it looks like and I hope it's helpful for you guys, especially if you're working with older individuals like middle school, high school or adults can actually be very helpful if someone has really big feelings or is refusing to do something or

they don't wanna go talk to their friends or they don't wanna do something like that, it can actually be very good to help them get to the heart of it and understand maybe why they're not wanting to and help to work through.

So they actually can even have some of those social interactions they might want to have.

You can incorporate positive bonding because it's part of this area.

Part of the brain is actually dealing with bonding too and connection.

You can incorporate like, if you know I see them for therapy, give them a hug.

I know it probably depends what's setting you work in, what's actually appropriate or not.

But it can help with bonding and using positive bonding can help these individuals.

You can do random acts of kindness together, you can train them on people skills.

So I do wanna mention individuals that maybe have more symptoms in this category, training them on people skills and emotional tagging of events because they may end up tagging certain events or certain things that people do or say to them as very, very important and also very, very concerning when they may not be as big as they're making it out to be, but it's because of this area their brains, you can actually teach them about how this area their brain works and teach them to think through some of those thoughts so that they're able to have those conversational interactions and practice and gratitude is great for this.

So I'm gonna go back here and we will let go back to this part.

So I just wanna address the scope of practice real quick.

So I know sometimes when we get into more of things that look more like counseling.

I mean even I remember when I was in grad school, it's like what it, like how does this all work together? And so I just do wanna mention that as speech therapists, as speech language pathologists, part of our scope of practice is counseling as it relates to communication disorders, as it relates to the emotional and reaction thoughts and behaviors that result from living with that communication disorder.

So, it's just something to keep in mind that yes, this is within our scope of practice if we're not like treating them, it's not our job to treat the mental health issue or anything like that, but it is our job to counsel as it relates to these communication and feeding and swallowing disorders.

So these are some of the ways that we can counsel.

This is just all from the scope of practice.

We can empower them, we can educate them.

And then these are the things that are kind of more related to what we're talking about right now.

We can actually provide support and peer-to-peer groups.

We can provide individuals and families with skills that enable to become, them to become self-advocates.

And then we can discuss and evaluate emotions and thoughts related to communication or feeding and swallowing disorders.

So someone has a communication disorder, they have a hard time maybe getting the words out that they want to to talk with their friends.

This method that I'm gonna show you next ANT therapy and the four questions can be helpful even if someone's stuttering or if someone just has a language disorder or even if they have a social skills difference and disorder.

And then of course please refer whenever it falls outside of that field related specifically to communication if it starts going into mental health, refer, 'cause that's not what we're supposed, that's not what we're meant to do.

Let me see if you guys have.

If you guys have questions or anything.

So just please just put it in the chat or the Q&A.

Put it in the Q&A if you have a question for me and put it in the chat, if you maybe just have something you wanna share or it's something that you need to ask one of us about.

If it's any kind of technical things, do that too.

So automatic negative thoughts.

So this is ANT therapy.

Not something I've ever heard of before Dr.

Amen's book, although it's similar to something I've learned about before.

So ANTs are automatic negative thoughts and these are very common individuals that have more limbic system hyperactivity.

So if you think about ANTs, they crawl everywhere.

They're annoying, you wanna get rid of them.

That's what automatic negative thoughts are.

And so I wanna share these things with you guys because I did not know this and this was actually hugely helpful for me too as a human, as a person.

So did you know that every time you have a thought your brain releases chemicals every time? I'm like, that's cool.

And our bodies physically react to each thought we have.

So if you have a physical reaction in your body and maybe you don't know where it came from, it's possible it came from a thought.

And so sometimes kids might have a really strong reaction and you're like, I don't know what just happened.

Could be because of the thought that they had.

Sometimes they can share with you if they are able to and sometimes they can't.

So you kind of have to figure out what's going on.

And you don't have to believe every thought that goes through your head.

This one also blew me away when I heard it.

I was like, oh really? Like that's not, like that thought is not mine, it's just the thought.

So I can train it to be positive and I can train it and change it.

So you'll notice that these ANTs I'm not gonna go through them all and explain them because I don't have time to do that.

But if you want to know more about this, please go do some research or get the books and you'll understand a bit better about how and what it looks like.

Real quick, it looks like someone asked a question.

It says, oh, selective mutism.

Let me see.

Specifically address selective mutism as this disorder crosses both professions of SLP and mental health.

Yeah, okay.



So that is, yeah, I've not worked with anyone with selective mutism.

I have had colleagues who have.

I would say actually, because it does fall within our scope of practice, so I think that getting them the mental health counseling that they need do that because that is appropriate.

But I think also addressing it in ways that you feel comfortable and confident doing as in relation to our scope of practice.

I think so using some of these methods that I'll be talking about that if they seem appropriate. If it seems appropriate for this individual, you can use it because it is related to their communication disorder.

And sometimes, yeah, selective mutism.

I haven't done a whole bunch of research on that, so I don't know, but I do notice is complicated.

But that would be, that would just be my suggestion.

That's kind of the way I've always thought about it is that it doesn't hurt because it does all fall within our scope of practice to kind of dig into some of those thoughts and feelings related to not, to not talking in essence in certain environments.

Because yeah, it's not just the, yeah, anyway, I'm like, it's very interesting.

But I think that do what you feel comfortable and confident doing within your scope of practice and don't feel scared to address, don't feel scared to address those emotions and maybe even some events that go with those emotions because that relates to even just our scope of practice.

Now I will share that I do...

I had one kid once who also was like, well I don't wanna talk because of this interaction that they'd had with someone that wasn't positive for them.

So you can work through that and the emotions related to that because that is within your scope.

So do what you'll feel confident in.

Okay, there we go.

So back to ANTs.

So ANTs are cognitive distortions.

So if you've heard or seen about cognitive distortions before, that's an ANT.

So there's all or nothing thinking, always thinking I'm going to specifically talk about the red ANTs today because those are, if you have those kinds of thoughts, they're the most dysregulating thoughts you can have and they tend to be very extreme or make you want to not do something or do something because it's such a like seemingly important thought.

So the red ANTs are like focusing on the negative, always only seeing bad.

So you can teach your kids that this is like an ANT.

Like that's not necessarily, it's, you don't have to believe it.

It's not necessarily true, but it's an ANT because it's just always focusing on the bad, bad, bad, bad, bad, everything's bad.

It's always gonna be bad.

Fortune telling, it's predicting the future or predicting the worst possible outcome.

Like I don't wanna go there because this terrible thing is going to happen or I don't wanna talk to that person because this terrible thing is going to happen when you really don't even know.

So that's just fortune telling, thinking that you know what's gonna happen and you don't. Mind reading, thinking that you know what they're thinking when they haven't told you. So that was a very dangerous one, especially when it comes to social interaction. So thinking means your feelings, guilt beatings, labeling, and then poisonous red ANTs which is very, the most dangerous one is blaming.

So I'm specifically going to talk about mind reading this ANT today.

Because I feel like this is very applicable if you have an individual with a social communication disorder.

So they have, so I'm just gonna describe something like what would happen.

So they have an interaction with someone, this person, they're just talking to their friend and their friend just walks away.

And they immediately think she doesn't want me to be her friend anymore.

Now that's actually an ANT.

They haven't told them anything, they haven't said anything, they haven't said, I don't want, I don't wanna be your friend anymore, but they just walk away.

And so this kid may come to you and be like, they, she doesn't want me to be her friend anymore.

And I've actually had kids tell me things like this before and I've had to help them think through it.

And so it's actually mind reading.

Actually think that you know what this other person is thinking and you don't.

So what you can do with that sometimes just knowing what ANT it is helps you be like, oh, I'm reading their mind.

Like I can't read someone else's mind.

I need to go and I need to go ask them what they're thinking, like talk to them, hey, you walked away from me earlier.

Why did you do that? And actually talk to 'em about it.

Or you can actually use what's called four questions.

And so this helps to address the thought and get to the root of do you absolutely know that that thought's true? Because if you don't know what's absolutely true, it can help you be like, yeah, that's not, that's not a true thought.

So four questions are the first question you ask.

Is it true? So is it stressful or negative thought true? So is this thought that she doesn't want me to be her friend anymore? True.

It's like, yes, right.

Most of the time when you work with someone like this, they'll be like, yes, of course it is.

So then you ask, can you absolutely know that it's true? And then they might say, no.

I guess I can't absolutely know that it's true because I'm not absolutely a hundred percent sure or a thousand percent sure that it's true.

And then how did they react when they have that thought? They might feel like, might just feel sick.

Like I feel bored and mad.

And then who would they be without the thought or how would they feel if they didn't have a thought? So how would they feel if they didn't have this thought that she doesn't want me to be her friend anymore? Like, maybe I feel okay.

Feel pretty good.

So then the last thing you do is you turn the thought around.

So what's the opposite of that thought is she might still want me to be her friend.

And then which one's more true? She might still want me to be her friend, or she doesn't want me to be her friend anymore? She might still want me to be her friend is probably more true.

Then you can train them, you can coach them on how to actually go and have that interaction so they can ask the person like what are they actually thinking so that they can start understanding some of these events and these social thoughts they have may actually be because of ANT and not because of anything the person did.

So next we're gonna go to the basal ganglia.

Here we go.

So this area of the brain, it helps to set the brain's anxiety level and the body's anxiety level.

And it's deals with motor movements.

It's around the command center, then it deals with movement learning habits right there.

I wanna mention anxiety is not bad.

It's not.

If you don't have any anxiety, you can do pretty reckless things and be way more impulsive than if you have a certain level of anxiety.

And this is something that they actually found in one of the studies that they did is that someone who actually had a really low basal ganglia activity, they were doing reckless things because they didn't have anxiety about it.

They weren't scared about what was gonna happen.

They just wanted to do it so they did it.

And they didn't think about what could happen.

So this is kind of that check system that you have in your brain.

I want to mention too, if any of you work with adults that these two, these two functions of the basal ganglia, that shifts in steady spine motor movements and suppresses unwanted motor habits.

So this is actually, you notice with Parkinson's, because that is a basal ganglia disease in essence that those motor movements and habits actually are uninhibited because the brain is not able to regulate that.

So someone has basal ganglia, more activity in the basal ganglia.

These are very interesting to me.

So they can actually have symptoms of heightened muscle tension.

So they can actually feel really keyed up on edge.

It can be those kids who are like really tense and tight and anxious all the time.

They can tend to freeze in anxiety provoking situations.

They might have like a lot of fear being judged, scrutinized.

They avoid conflict and criticism.

They might be biting at their fingernails, watching for bad things to happen all the time and having like any ticks or poor handwriting.

Also, if you think about, because their hand literally is not loose to like move fluidly and freely and they have like so much tension in their body because this part of their brain can actually be hyperactive.

So I'm gonna mention about these general treatment recommendations.

I really like these first three for us.

If you're working with an individual like that, you can teach them to breathe, first of all to breathe.

Don't leave if they're in a really anxious situation, don't just leave.

That can be the first instinct sometimes.

And then to write down their thoughts or to talk about what they're thinking because sometimes those thoughts can be actually ANTs and sometimes it can just be worries and things that if they talk them out then they're able to be like, oh yeah, that's kind of silly.

I can stay here in this place.

So some of these things that I've noticed on like with individuals that I've worked with that I just wanna note if it is overactive, people are more likely to freeze if they're stressed.

So kids may just freeze you ask them to do something and they freeze because it can be because of their anxiety system.

I would highly recommend incorporating deep breathing, incorporating positive thinking.

You can help them work on finding ANTs.

Use a schedule with them.

Oftentimes this does really help 'cause they know exactly what's happening.

I would recommend though, that you limit the items that you can redirect them back to you, especially with younger kids 'cause they might get distracted.

I have some kids that kind of have what seems like multiple different brain areas that are functioning differently.

And so I actually use it with limited items because I know they're gonna get distracted, often and kind of because their brain does that.

And so I just have limited items that I know that they can complete because I know that if I have too many on there or if I'm doing too many things to do, they get anxious because it didn't get done.

And you can help talk them through that.

But also if you know this about them you can just set it at a lower level just so they're able to learn and not feel every session like, I didn't do it.

And then also help them stay in the activity if it is stressful, if it is hard for them and they get anxious because they're scared they might not get it right or whatever.

You can actually help them talk through it, talk through some of some of those thoughts so that they actually can feel safer and calmer and actually do their work.

I'm gonna see it looks like there's another question.

So let me address, I'll address that in a minute.

So now I'm gonna go back to the PowerPoint here for a minute.

So back to the basal ganglia.

So I'm gonna show you some different, a couple different techniques for diaphragmatic breathing.

There's a ton out there.

If you guys have any suggestions or have any videos or anything that you guys like to do, please throw them in the comments box, 'cause this is probably one technique that is good for so many of the different brain areas actually.

So you breathe deeply and you breathe slow and deep mostly with your belly.

So you breathe five seconds in and you hold for two and then you breathe five seconds out and you hold for two.

I'm gonna do this a couple times to show you.

I will say if a kid or someone has anxiety, they might not be able to breathe in for five seconds.

So just recognize you might have to like modify this for someone.

So you go.

So that's one way you can do it and you repeat for 10 breaths.

The more you repeat it for, the more likely their nervous system will actually calm down.

The other thing you can do is actually go every inbreath, you go up a finger and every out breath you go down a finger.

You can do this a couple times on your hand.

This can also really help with kids because of something physical and tactile that they can actually see and do and it's with them all the time.

So it makes sense and it really does help.

The other things you can try or suggest for parents too is relaxation techniques for, especially for kids who are high anxiety and have may have more basal ganglia activity.

You can actually do, they suggest meditation or tapping.

Tapping is also great.

It does actually physically work to release that energy and help the body calm down.

Let me see.

So before I move on to that, I'm just going to address real quick.

So yes, so mind reading and teaching theory of mind for perspective taking.

Yeah, that's a hard one.

I've thought about this of like what's the difference between being a mind reader.

I think the difference would be that you do wanna teach kids.

It's more of those like automatic negative thoughts that you wanna address with individuals.

So if they're constantly thinking of like, oh I don't wanna talk to that person because they're gonna think this.

I don't wanna talk to this person because they're gonna think that, like that would be more of the automatic negative thought.

Whereas teaching theory of mind is more about those, I would say like options.

Like possibilities of like, or this person is thinking something different from you, they're separate than you.

And some kids, yeah, their theory of mind is also hard because they just don't do that, and part of it can just be part of their cognitive development.

But I think that.

Good, yeah.

So it just helps to like understand the difference between those.

Awesome.

There we go.

So now onto the anterior cingulate gyrus.

We are going to go here and there we go.

So this part of your brain is the flexibility part of your brain.

If it's hyperactive, you're gonna tend to have this stuck.

That's just the best way you can describe.

So it's here, it's close to the front part of your brain, it's close to the heart.

It's flexibility, it helps all the parts of your brain work together, but if it doesn't, it gets stuck, and when it gets stuck, this is what happens.

If it's hyperactive, this tends to be what happens.

Excessive or senseless worrying.

Constant, these constant like negative thoughts and they tend to be oppositional like I know this is what I'm gonna do, this is what I'm gonna do and you can't make me, like you cannot try to convince someone who's stuck on something do not do that.

I'm just gonna say it's not helpful.

Try to distract their brain, but like if you just try to like convince them, you're just gonna go back and forth and back and forth and back and forth.

So these individuals tend to have intense dislike of change because again, it's that flexibility piece.

It tend to have trouble shifting attention from subject to subjects.

So sometimes they can get stuck, like if you do something, I have some kids that I've worked with as like one thing, that's all we're gonna do the whole session because I know if I try to get them to go from here to here to here, it's like they just get stuck at that one thing they were doing.

And so as you learn and work with the person, you can kind of extend multiple things that you're doing.

But a lot of times with kids that get locked in, like you might do one thing the whole time.

They can get upset if things are, unless things are done a certain way.

That's pretty common things.

Sometimes you hear parents be like, they just seem to get upset unless things are done a certain way.

Can be like a little like, oh that's, that may be what is going on.

So this can be like kids maybe who are diagnosed with OCD or maybe have some of those kinds of symptoms.

It can be, 'cause it's specifically this area of the brain.

And I will mention that this is actually based on 30 years of research where they've done brain scans.

So they do SPECT imaging studies at Dr.

Amen's clinics and they actually specifically go in and they look at the brain and it's actually done when the person's awake.

It's some kind of almost like radiation type thing.

I can't remember exactly what it is called that a SPECT.

So S-P-E-C-T scans.

And they actually look at like what happens in the brain at rest.

And then you can also do what happens in the brain when someone tries to concentrate.

And what areas of the brain go online offline? Are there certain areas that are just online all the time? And so individuals that have OCD type behaviors, they actually are these individuals that have high ACG activity.

A high anterior cingulate gyrus activity.

So you wanna think about these kids as the ones who get stuck.

They can even get stuck on no.

So even those oppositional kids, they get stuck on, no.

You tell 'em something, they say no immediately.

And I will say I have this sometimes myself.

Someone tells me something and I say no and then I'm like wait a second, I have to think about that first.

And that's just because the automatic response to a question is no.

So sometimes it can help to just bring out the activity instead of asking questions or you give them choices.

Choices are often very helpful for these kids.

Other thing is if they're stuck, don't try to convince them, take a break and come back to it later.

You can use distractions to help their brain change gears.

Or even songs sometimes it's like if it's just like a fun song that they like, it will just get their brain off of that thing that they were stuck on.

And I've had this happen many times.

It really does help a lot.

And a movement's always helpful, especially for just when you're talking about brain and brain activity.

Even just moving and physically doing something different can just actually kind of get that brain out of that place of being stuck.

If you want their cooperation, oftentimes ask for their ideas and ask for their input.

You can try this, paradoxical requests, I can say it kind of feels sticky to me.

I don't like to do this one a lot, but I have tried it sometimes for kids who get really stuck and just are like, no, I'm not gonna do that.

And they just kind of freeze too.

Sometimes I just feel like, we're not like they're working on our tick sounds.

We could try and say it really, really slow.

So it kind of naturally distracts them from the fact that they don't wanna say that word and then they're like, oh it's not that bad.

Like I'll be like, I'm giving an example and then they'll be like Apple, then they'll actually like at least get in the, oh okay fine.

That's not so bad.

I want to mention that if that it was PTSD.

They've done a, they did a study of over a thousand different patients and they actually show, so three different brain areas that we just went over.

The basal ganglia, the limbic system, and the anterior cingulate gyrus.

Those actually are all increased with someone who has PTSD.

So I've put the common PTSD symptoms there and then you guys can just review that because it looks like we are, our time is going by real fast.

Let me see.

Great.

Do do.

Let's go to this next one.

You guys just close your eyes for a second and take a deep breath.

That was a lot of different information.

Onto the next one, temporal lobes.

So I'm not gonna go as much into depth 'cause we are getting close to finishing our time up.

We just have about 20 minutes left here and I wanna make sure that we don't get out too late.

So I'm just gonna go over these for you guys.

I'm not gonna go in super in depth, but I want you guys to know that this is, they're all, all the handouts are set up the same.

So it goes with each area of the brain, their functions, the symptoms, the general recommendations.

And then my specific recommendations that I have as a speech therapist working with individuals like this.

For the temporal lobes, the left lobe is the dominant lobe, which is usually the left lobe tends to deal with language and memory and the right lobe tends to deal with facial expressions and nonverbal communication.

So, and we understand this from like if someone has a stroke, if they end to have a left-side stroke, it tends to be memory and words and if it's a right side, they tend to have more of that social interaction piece that's a little bit more missing.

But these symptoms of the temporal lobe differences are actually very kind of varied and they kind of go into a lot of the other areas too.

But I just wanna mention that if someone does have temporal lobe, activity that's different, they can tend to actually have seizure disorders.

So sometimes Dr.

Amen's actually put them on like antipsychotic medications, which is interesting anticonvulsants actually.

So just so you know, if you have, do have individuals that have seizure disorders, it's possible they may tend to have more of these kinds of symptoms.

They can have periods of spaciness, confusion, they can have rages actually.

They can have visual or auditory changes.

So those are illusions.

I mean you may have heard of them referred to before as like hallucinations.

They can tend to have dark thoughts either directed towards themselves or others.

Periods of forgetfulness and memory difficulties.

My like overall recommendation would be like to incorporate music into your sessions actually.

And singing, this actually does really help with this.

So you can even do like dance songs.

You can start out a session with a dance song or some kind of rhythm to help them, encourage them to sing.

Teach breathing if it's someone who does have like, who tends to get angry, you can actually teach them breathing.



Or if they tend to have more like violent outbursts, you can actually help them if they're at that place, cognitively help them make and stick to their goals.

And then, did what you just did line up with what you wanna do and what you wanna be.

And it can actually help them maybe regulate that part of themselves a little bit more.

Encourage parents to consider nutrition.

It actually is a big deal with individuals that have temporal lobe differences.

So, let's see.

And then I did put temper anger management.

I put a slide on this just because if you do work with someone who maybe has more of those temper outburst can be helpful to know strategies in the moment to help them regulate so that way you're able to work and continue to move in your session.

So prefrontal cortex, this last part.

So this is actually going to be specifically about moving towards the ADD.

So prefrontal cortex, this is the area of the brain that if someone has ADD, this area will have decreased.

They'll have the symptoms of decreased brain area activity in this area.

So the prefrontal cortex, this is the part of your brain that has to do with thinking through things.

In essence, if there's anything, it's just thinking through things.

And empathy is also there, which is interesting.

So if this area of the brain is not as active.

So the other areas of the brain we were talking about if they were overactive, other than temporal lobes, the temporal lobe is decreased activity.

And this one is if it's decreased activity as well.

So they can tend to have trouble sustaining attention in routine situations.

They can tend to distract ability or organization.

This one I think is just great to keep in mind, difficulty awaiting turns.

Sometimes we expect kids to wait their turn and they don't.

And we're like, we're teaching you turn taking, well their brain might not be there.

So you might just need to recognize that.

Also kids, their frontal cortex and their prefrontal lobe is not developed until they're an adult.

So you might see some of these symptoms, so to speak in young children simply because they're young children and their brain's not developed.

So they just don't have as much activity in that part of their brain anyway.

So my recommendations, this has been probably a majority of the individuals that I worked with.

I would say if you think of anything with these kids and individuals who have these kinds of symptoms, making it meaningful is literally the ultimate thing.

If it's meaningful to them, they will learn it way, way more easily and readily and they'll be able to focus on it.

If it's not interesting and meaningful to them.

It's like my friend said this, like their brains turn off literally.

Just gonna say.

Incorporate movement.

So this is the other thing that's huge is movement.

The more that they move, the more that the brain actually will have more activity in that frontal lobe just from moving.

So even if they can run or do some, a lot of exercise 30 minutes even before you want them to work.

So even if you try and get parents or teachers or whatever get 'em after gym or something, they might actually be in a better place to focus because they have just spent all this time moving. You can do it as they're working.

So if they're working on sounds and they're saying a word, you move, have them move while they're saying the word.

Have them jump as they're saying the words, have them color as they're saying the words, have them play as they're saying the the words.

It would tend to do better actually if they're doing something.

And I've had kids actually ask me, I'll tell you right now, I've had kids who have some of these symptoms and they literally will straight up ask me, can I do it.

I'll be like, let's work.

And they'll be like, can I do it and play cards at the same time? Can I say words and do this at the same time? Because actually that's how their brain works.

And so it can help to actually have a chart like as a goal.

So one of my friends who also has some of these symptoms, she said that having goals is super, super helpful.

So if they have like set an objective in their brain, it helps their brain actually stay focused on it. So I would suggest like a prize chart, not as like a reinforcement chart so to speak.

Like well if you do what I want, not as that kind of thing, but like, ooh, if you get to a hundred, we get to do this really cool thing.

If you can get all the way to a hundred for like some of those kids that are working on sounds and they'll be like, oh.

And they can also may have the motivation.

So one of my kids, it's like, can you get...

How many can you get to today? And like, let's see how many and can you get to 200? Can you get to a hundred? Can you get to 50? Some of them, if they get to 50, I'm like, ready.

So you can actually teach them to advocate for their needs too.

So I taught one of my other kids.

I realized that he just needed to be moving every single time.

And I had this kind of breakthrough session with him where I realized it was like he actually needs to be moving even while we're working.

And we did, I started teaching him ask for just like whatever he needed and teaching him how his brain work that he need movement to help his brain work and help his brain focus.

And so he came back from school one day and he was just like, I was like, okay, let's like sit down and we're work in these words.

And he was just like, I need, my brain needs to move.

And I was like, okay, good, let's go do it.

So we did it for like 10 minutes, just movement, just running and plane chase.

And then we tried working and his body was just moving and I was like, okay, I'm just gonna walk with you.

We're gonna say the words as we walk and I would just check them off this little chart we had.

And then when we got to the end, we gotta play, got prize or something like that.

But it's just help them help their brain focus.

It's just a way to actually help them help their brain.

And then again, there's a couple things with these kids.

There's two things I would say too.

If you do do anything meaningful movement, those are separate but meaningful movement also helps.

And if the other two things, don't tell them to focus.

Whatever you do, do not tell them to focus and do not tell them to try harder.

Don't do it.

It will actually turn their brains off.

Like literally they, when they do these studies of the brain, like the person's brain will actually be functioning at a certain level and then when they tell them, okay, now concentrate, their brain literally will decrease activity in that brain area.

And when they try to make their brain work harder, it works less hard.

So just try to figure out what they need instead and what's gonna make it meaningful for them and do that instead of trying to push their brain, 'cause it does not work.

Protein helps too.

It does help their brains work.

Visuals can help.

Tapping or touching them if you're trying to get their attention instead of talking to them, 'cause they might be zeroed in on something else that they're really interested in.

So trying to use anything to tell them something it just does not work.

Yeah.

Harder you try the worse it gets.

This is how it works with concentration with individuals with ADD or ADD-like symptoms.

You could do this for older students or adults.

One page miracle exercise, what do I want for my life? What do I want for my life at school?

What do I want for my life at friends? It can help to have this sense of personal responsibility and clear goals for them that can actually help them with being motivated to do something.

And so I've had this conversation with some of, with actually many of my older students who have some of these symptoms is actually what do you really wanna do? Or like, remember we're doing this because of this other thing that they've identified that they don't want to happen anymore.

Even in like social interactions.

If someone has had trauma to the brain, whether it's physical, emotional, psychological or mental trauma, it can actually cause these symptoms to increase or can cause symptoms.

So just remember that if someone's had a head injury, 91%, the PFC, the prefrontal cortex is involved.

So, you can actually have someone with symptoms like these simply because of a head injury.

It's not meant for you guys to diagnose this information is not meant for you guys to diagnose anyone with any kind of, anything, with mental health or with brain area.

I mean really the only, the only way you can actually diagnose this is to get a brain scan.

But a lot of times that is, sometimes just not functional or feasible for individuals we work with.

So I have intended to give you guys this information.

So if you work with individuals that have these symptoms, you can actually match some of these therapy specific recommendations or the other recommendations with these individuals to help them, to help them heal their brain, to help them understand how their brain works without necessarily getting a brain scan if that's not a functional or feasible thing for you.

So I'm gonna see if there's any other Q&A.

Awesome.

Great.

Dismiss.

Looks like there's no other questions.

If you guys have any questions, feel free to put them on and then I'll answer them in a few minutes once we get done with the ADD section.

So ADD, I'm gonna go over this pretty quickly, but it will make sense for you guys once I...

Whoa, I accidentally went to the end.

That is not what I wanted to do.

Whoops.

Totally did that.

So we're gonna go to this ADD handout real quick.

So if I can just tell you anything about ADD, there's seven types.

There's seven types.

They're on this handout.

Classic, inattentive, over-focused, temporal lobe, limbic, ring of fire and anxious.

So these actually relate directly to the brain areas that we already talked about.

So if someone has classic ADD, they tend to have these core ADD symptoms which are short attention span distractibility and it's short attention span specifically for routine everyday tasks.

Distractibility, organizational problems, difficulty with follow through and poor internal supervision or judgment.

And that sounds exactly like the decreased bifrontal cortex activity because it is.

They also have decreased basal ganglia activity.

Now this is very important to understand because the basal ganglia is that check system.

So that check system is not as active and so they have a system that's not gonna think through things as much possibly and tends to be more impulsive.

And you also have this check system that's not as active.

So they can tend to be more likely in emergency situations, which is why we need people like these in emergency like doctors and EMTs and all this.

They can tend to jump into action in an emergency situation.

Whereas someone who has more anxiety, who tends to have more basal ganglia activity is probably not going to jump into action as quickly because they're gonna think through a thousand different possibilities and possible outcomes.

So if you have someone who has these symptoms, use the prefrontal cortex handout.

If you have someone who has inattentive ADD, which tends to be quite destructive, sometimes these individuals are not diagnosed until they're like high school, middle school, sometimes it doesn't show up for a while until they're really like pushed to concentrate. So I would suggest using the same handout and also using activities which help increase blood flow to the brain in general because overall their whole brain tends to have decreased activity, not just the prefrontal cortex.

So the over-focused ADD, it tends to have exactly the same symptoms, those core symptoms, plus they actually tend to get stuck.

Now I don't know if any of you have worked with individuals like this, some of my kids who have autism.

I've had some that tend to get very stuck into things and they also tend to be distracted.

So they actually have both kinds of symptoms.

You can actually use a combination of things from the anterior cingulate gyrus handout plus a frontal cortex handout because there tends to be more activity in the anterior cingulate gyrus which makes them get stuck and less prefrontal cortex activity, which tends to make them distracted.

And there's the temporal lobe ADD.

Tends to be those core symptoms, plus it's commonly associated with learning and behavioral problems.

So this is one thing that because there can tend to be that violence internal or external violence because of the decreased temporal lobe activity.

They can have mood instability, irritability, dyslexia, memory difficulties.

So you can actually use a combination of the temporal lobe and the prefrontal cortex.

Because this is literally how he actually describes these brain areas.

It's like actually it's this lobe plus this.

It's like, oh okay, you just put 'em together.

A math equation.

Limbic ADD, so this is that short attention span.

So the same core symptoms plus negativity moodiness, it can maybe look more like depression.

So, and refer if you really think that this in, if you think that this had of anything that might need mental health.

But I would say do the limbic system and then do the prefrontal cortex standout suggestions.

Ring a fire.

I don't know if any of you guys have worked with this, but I worked at an ABA school for a couple of years and I had some individuals there literally it's like their brains were on fire.

That's literally what it looked like when they do a brain scan.

I don't know for sure but that's what it looked like.

They tend to have very volcanic behaviors.

They may have a lot of moodiness, a lot of getting stuck, a lot of violence towards themselves or other people.

And I would just say seek professional help.

Like don't try to, don't try to just manage these kids with, things that you have.

Like a lot of times they need help and they need it with a variety of different, medical professionals and everything.

And then anxious ADD, so that's those same symptoms plus the fear of being judged, predicting the worst, being conflict avoidant and also having physical stress symptoms.

So that's those anxious symptoms plus the ADD symptoms.

So you can use a combination of these two handouts.

So I really hope that this is helpful for you guys.

And I'm gonna go over just real quick a couple of resources that I found to be helpful that you guys can see.

If you have any other questions, please put 'em in the Q&A and I'll answer them in a minute.

So this just goes over the different brain areas.

This is for your reference, you can see it in your slides about which brain areas are increased and decreased.

And that is why I've come up with those different handouts.

The combinations you can use.

And then this is specifically for the temporal lobes.

If you have a right temporal lobe decrease in activity, you can tend to have more difficulty with social skills and if you have less temp, left temporal lobe, you can actually have violence, which is interesting.

I have not heard that one actually before.

I don't remember in that, before I learned about this.

And then if you have both sides you can have more memory difficulties as well as sensory illusions.

Of note, there tends to be decreased activity in the cerebellum for kids who have ADD, which is tends to do with motor movement.

So they can be clumsier sometimes.

Here's some word list ideas.

If you have an individual with ADD names tend to be very motivating for them.

Actions can be very motivating for them because it's movement-based and play is very motivating.

So what do you wanna say? What do you they wanna say? Incorporate that.

Here's just some things that I've found some of my kids like so you use 'em.

You find, come up with your own, come up with them.

Come up with word ideas with them.

This is something that one of my kids said and it's my favorite thing, but one of my kids has said to me because I really made an effort of taking my agenda away and not going in there with a specific, like, you have to do this today, we need to get this many and we played a lot and it was an older student, and she said, thanks for letting us play.

Kids love to play.

So it starts with you.

Look over these handouts even for yourself and see what areas do you have strengths and what areas do you wanna grow in and start incorporating some of these things for yourself.

And I know we're out of time here.

So I've just put these slides here for you guys.

This is some information about sensory.

She's really great and it can help with regulation.

This, I just love this quote.

"And what did you need?" "What did you need as a child?" Sometimes this can help as you move forward to be the kind of person you wanna be and help to reflect on what actually you needed.

And sometimes it's what you actually seek to give your kids and then you can actually turn that on yourself and do that for yourself too.

1%.

If you can do 1% better tomorrow and 1% better and 1% better, you will end up being the best. I heard this somewhere, I can't remember exactly where I heard it from, but I love it.

And they, it was actually a specific study that someone had done and they actually ended up being the best biking team because they just focused on the 1%.

So don't think about, I'm gonna incorporate everything just 1%.

Just do 1% better.

Here's some podcasts I like.

Huberman Lab, SLP Nerdcast and Hidden Brain.

They're just interesting.

May have found some other ones too.

Learn, grow, find things that are interesting to you and a lot of times it will help with even your work with kids.

Here's some books that I love.

These have also helped a lot with myself and with the individuals I work with.

Atomic Habits, Highly Sensitive Person, The Body Keeps The Score, The Power of When and The Power of Showing Up.

Let me see if there's any other questions.

So activities for increasing blood flow to the brain.

That's really just any kind of movement activities.

Anything that gets your body moving actually will increase the blood flow.

So if you wanna like race or even do kind of, kind of cardio.

If the individual can do that, that's gonna help them get their blood flowing basically.

So anything that's gonna get your blood moving, get your blood pumping, jumping jacks, jumping jacks is probably one of the fastest ways you can do it.

Let's see.

Anyone else? Anyone else? If you guys, I see a couple other people have raised their hands.

If you guys have any other questions, put them in the question.

But we are just done here.

So thank you guys.

Please thank you so much for coming today.

I appreciate you guys being here and learning and I really hope this is helpful as you move forward and work with all of your students.

Let me go back here and here's my contact info.

Feel free to reach out.

I would love to hear from you guys or if you have any questions or want resources or I would love to be a support and a resource for you guys.

I think that's it Jim.

- [Jim] All right thank you Ruth.

Thank you very much for that presentation.

I'm seeing lots of positivity in the chat.

For everybody that is still here, if you are looking for those ASHA CEUs, please be sure to complete that short assessment.

I have just put the link in the chat again and you will get that in an email tomorrow.

Thank you all for attending and have a great day.