

**DR. TANYA BROWN:** Hi. This is Dr. Tanya Brown. I'm a pediatric neuropsychologist and assistant professor of psychology at Mayo Clinic, and I'm here with Dr. Shari Wade, who is a research professor at Cincinnati Children's Hospital in Cincinnati, Ohio. She and I have worked for quite a bit of time on research in pediatric and adolescent TBI and behavioral interventions with children. And we're here at the American Academy of Physical Medicine and Rehabilitation in Orlando, Florida.

Thank you for joining me today and allowing me to ask you some questions about relevant topics in our field. First I'd like to ask you if you are noticing an increased incidence of pediatric traumatic brain injury in your institution.

**DR. SHARI WADE:** I think the incidence of TBI really depends on the age range. In younger kids, I think we've seen a decreasing incidence due to some of the better child restraints, changes in child restraint laws so that children have to be in child safety seats for a longer period of time. Some of the other protective campaigns I think have really made a difference.

I think for sports concussion, obviously, there's an increased awareness. So I don't know that there's a really changing incidence, but I think more people are seeking treatment for it given the increased public awareness about the possible long-term consequences of concussion.

**DR. TANYA BROWN:** Makes sense. Most of our research has been on children with either severe or moderate brain injuries. And you briefly mentioned the concussion population. And we've worked on problem solving and behavior management and those kinds of issues in prepared training and that kind of thing with our population. Do you think at some point it would make sense to branch out into this concussion population, or do you think there's just not enough need for some of the--

**DR. SHARI WADE:** Well, that's actually something that I've been working on right now. Lynn Babcock, who's an emergency room physician at Cincinnati Children's, she and I are preparing an in-house proposal. We also submitted a proposal to NFL charities to develop a web-based intervention that would focus on both symptom monitoring and also some cognitive behavioral coping strategies for kids with concussion.

I think one of the challenges with concussion is that now they're prescribing cognitive rest. And what that means and the duration is very unclear. And so some kids are actually in bed for weeks after their concussion, and then they have secondary problems. I mean, if you miss

weeks of school as an adolescent, you're in a bad position.

So that's definitely a direction that we're moving in right now. And if you want to move in that direction with us, that would be great.

**DR. TANYA**

**BROWN:**

Well, that's exactly what we're seeing and having issues with as well is that cognitive or brain rest and how long does that go on and when do we get kids back into school. And it's hard for me on the clinical end to make recommendations, really, without having the children back in school knowing what deficits are there if any. So I agree. It's an area of concern.

What other clinical initiatives do you have going on right now at Cincinnati Children's?

**DR. SHARI WADE:** Well, I think, clinically, we have a new TBI clinic that Brad Kurowski is heading up. It's going to be a multi-disciplinary clinic and bridge the spectrum from mild TBI concussion to severe TBI so that people aren't followed in so many places. And so that's our new clinical initiative.

On the research side, we've got work at a variety of different levels. So there are certainly the web-based treatment studies that we're doing, and is part of the Center for Pediatric Traumatic Brain Injury Interventions that's supported by the National Institute on Disability and Rehabilitation Research. We're conducting several multi-site clinical trials looking at the teen online problems solving program, the internet interacting together everyday, parenting skills program, and also an attention management program that was developed by McKay Moore Sohlberg at the University of Washington.

And we're actually doing a pilot of that study right now doing functional imaging pre and post treatment to see if the intervention one results in significant attentional changes and if those attentional changes correspond to neural changes in the brain. Because that's one of the theories of attention training is that it results in neural remodeling, and a lot of neuropsychologists are very skeptical about that. So this will give us an opportunity to at least collect some pilot data and then pursue that in a larger study.

**DR. TANYA**

**BROWN:**

Very exciting. You mentioned the web-based studies, and we were chatting briefly about being able to make our services in the web-based interventions more available to families. What do you think should be our next step in really branching out clinically, if we can, and allowing the families to receive the internet-based services that we can provide them?

**DR. SHARI WADE:** I think that's a really important question. And I think it's a challenge bridging that gulf between clinical work and research. And so these research-developed paradigms often don't find their

way into clinical work unless there's a big rollout. So in the Department of Defense, they've rolled out cognitive therapies, cognitive processing therapy for post-traumatic stress disorder. But short of that, it's really hard to get a bunch of people to change practice.

I sometimes think I would do better selling it because if I was selling it, people would want to buy it. And the fact that we've been giving it away means people want to use it, but they don't really have a framework for using it. And so I don't really have the answer to that question, but I think some of it has to do with breaking down some of the boundaries between State psychology organizations, because this obviously, involves practicing across State lines.

And different people who do telehealth have circumvented some of those regs in different ways. But I think that there needs to be a consistent policy from the top down at the American Psychological Association level for psychologists. There are other people who are doing telerehabilitation who are working on those kinds of things.

So there's a lot of different agencies and organizations that are working on it, but maybe even a health and human services initiative that says if we want to cut health care costs, this is one way to do it.

**DR. TANYA  
BROWN:**

Makes sense. Thank you so much for joining me today, and it's been fun to work with you certainly across the years, and we'll continue working together in the future. Thank you.