Ruth Adewuya, MD (host):

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Ruth Adewuya, MD (host):

This episode is part of our pediatric pulse mini series, and I will be chatting with sleep expert Dr. Carolyn Okorie on its impact on mental health. Dr. Carolyn Okorie is board certified in pediatric pulmonology, sleep medicine and general pediatrics, and joined the Division of Pediatric Pulmonary, Asthma and Sleep Medicine in 2018. She obtained her medical degree and Master's in Public Health at the University of Arizona before going on to a residency and chief residency in pediatrics at Oregon Health & Science University. She completed her fellowship training in pediatric pulmonary medicine and sleep medicine at Stanford University. Her additional training in sleep medicine allows her expertise to treat sleep disorders including sleep disordered breathing, parasomnias, narcolepsy, restless leg syndrome, and insomnia. Thanks for chatting with me today.

Caroline Okorie, MD (guest speaker):

I'm very happy to be here. Thanks for having me.

Ruth Adewuya, MD (host):

So we're talking about a really important topic, sleep and its impact on mental health. To get us started, can you provide some insight into the short and long term importance of getting a quality night's sleep?

Caroline Okorie, MD (guest speaker):

Yeah. A lot of us know from personal experience how important good sleep is. A lot of us, again, know how we feel when we don't get a good night's sleep. What we know, especially in kids, is that short-term, we have decreased mood. We can have more issues with attention. All of us have seen the irritable teen and can relate to that. Younger kids have a harder time with hyperactivity and paying attention and learning and focus, and then long term can affect your development. For some kids with very severe sleep issues, it can actually affect their growth. For adults people who've had decades of sleep issues, it can actually can be associated with cardiovascular issues like stroke, high blood pressure, poor diabetes control. It can actually have a lot of far-reaching factors.

Ruth Adewuya, MD (host):

This might be the million dollar question for our conversation. How much sleep do kids need?

Caroline Okorie, MD (guest speaker):

A great question. Yes, I get that all the time. So it really varies by age. It's important to know that newborns may need as much as 19 hours of sleep in a 24 hour period. So there might be newborn who really is sleeping all day long and then toddlers it can range to maybe 11 to 14 hours. School-aged kids, nine to 11. The real important thing that a lot of my patients and families are surprised about is how many hours teens need. And so adolescents, about eight to 10 hours is actually what's recommended. There is a range. There are some people who need a little bit less and some people a little bit more, but that's usually where I aim for most kids.

Ruth Adewuya, MD (host):

Why does sleep matter for mental health?

Caroline Okorie, MD (guest speaker):

There is this codependent relationship between mental health and sleep that we know about. So we know that poor sleep can worsen mental health issues that already exist or bring about ones that weren't there before. We also know that mental health issues can also, then, relate to poor sleep. So unfortunately they can actually really be interconnected. I've got a lot of people who come to my clinic who say, "Hey, my child is having depression or anxiety or some issues in school. If you could fix their sleep, it'll make everything better." And unfortunately, I say, "It's not that simple." It's really addressing both in parallel, which is really important, especially if those who have serious mental health issues, anxiety, depression. We actually know that sleep disruption can be associated with suicidality in some kids, so it can be really serious. I always tell parents, address both. Talk about sleep, try to work on sleep At the same time, seek a mental health professional to help you as well. So again, they're really interconnected. You got to address them both at the same time.

Ruth Adewuya, MD (host):

Yeah, thanks for clarifying that interconnectedness. What I'm hearing from you is that you are seeing a lot of sleep disorders both occurring with mental health conditions in children and adolescents. Is that correct?

Caroline Okorie, MD (guest speaker):

Correct, yes, they absolutely intertwine.

Ruth Adewuya, MD (host):

Which ones are most commonly occurring together? You talked about sleep and anxiety and depression. Does it tend to vary by person and by age?

Caroline Okorie, MD (guest speaker):

That's a great question, and unfortunately it always varies. And I think in kids we're still trying to learn more about sleep and really what it all means. But we have great evidence to show that sleep issues and anxiety are very well tied together. Depression and sleep issues are also tied together. Also Attention Deficit Disorder, kids struggling in general, having lower mood, I see those things are commonly tied.

Caroline Okorie, MD (guest speaker):

Oftentimes though, it is also important where sometimes just having sleep issues can seem like it's a primary mental health issue, where really the kid's just tired. And so sometimes it's actually helping the sleep, which can actually improve how the kid shows up at school and they seem less tired. But I think it's really trying to get at and ask the kid how they feel. It's really important to really help figure out what's what.

Ruth Adewuya, MD (host):

What are some of the most common sleep disorders in children and adolescents? And maybe you can talk about some of the risk factors for these conditions.

Caroline Okorie, MD (guest speaker):

Sleep disorders are actually quite varied. It's funny, because I've talked to friends in different fields and they said, "Do kids even have sleep issues?" Usually they're not parents. I will say a lot of parents will say, "Yes, kids have sleep issues." So the one that most people know about is insomnia, right? The kid won't sleep when they want to or when you want them to. And that can be for all sorts of reasons. For younger kids, it can sometimes just be limiting. They want to play. They haven't quite transitioned from playing into going to bed.

Caroline Okorie, MD (guest speaker):

Insomnia can also be, especially with our lot of our school-aged and teenagers, it can be from using devices at night or electronics. It could be from worries, anxiety, as we've already talked about. So insomnia is one of the most common things we see.

Caroline Okorie, MD (guest speaker):

Sleep disordered breathing, or sleep apnea, is actually often seen. The thought is anywhere from 2 to 4% of children in the US have sleep disordered breathing. That number is probably increasing a little bit, especially as we have more obesity among kids. But that's something that can affect your sleep quality.

Caroline Okorie, MD (guest speaker):

Other things that we often see are parasomnias, which can include sleepwalking. As a sleep doctor, we think about a little bit more nuanced things like Restless Leg Syndrome. We see that in kids where they have a hard time settling or they feel the urge to move when they're trying to relax at night. Then there's more rare things like narcolepsy and those things. But just to go back, I think insomnia, breathing issues and parasomnias are usually the most common things we see.

Ruth Adewuya, MD (host):

Are you seeing a correlation between the severity of these conditions and the onset of school? Just because I imagine that they might be worse when school is in session where sleep might be more irregular.

Caroline Okorie, MD (guest speaker):

Depends on the kid. So I think in children who find school to be stressful, I am seeing a little bit more anxiety that leads to a little more insomnia.

Caroline Okorie, MD (guest speaker):

Also, we know especially children who are in the puberty age or post pubertal, their circadian rhythm shifts, so they prefer to actually wake up later and go to bed later. Unfortunately, school times are generally pretty early, so I think I see a lot of more sleep deprivation, especially in our teenagers who are given several hours of homework. They have to get up early but they prefer to stay up late. So then they're in this constant battle. What they end up doing is just staying up late, waking up early, which we know, then, closes the time that you get to sleep.

Caroline Okorie, MD (guest speaker):

So those are the most common things I see that are especially around school. So either if there's anxiety around school, or just not enough time, sleep deprivation. Other things, parasomnias or sleepwalking

can be triggered by stress, as well. So sometimes if you are in a new environment or have a fever or don't feeling well, like those things can actually trigger parasomnias. So sometimes at the start of school, you can actually see more sleepwalking, too.

Ruth Adewuya, MD (host):

Yeah, that's a great segue to my next question around sleepwalking and night terrors. You talked about what could impact it, which is maybe some anxiety, not feeling well, being in a new place. But can you also touch on what we should do or what clinicians should be thinking about when treating kids that are experiencing that?

Caroline Okorie, MD (guest speaker):

There are things that can definitely trigger, make them happen more frequently, but it's also important to know that some kids just sleepwalk, and some kids just have night terrors. And they may not be anything underlying. It tends to run in families, so oftentimes you start to ask the family, you find out, "Oh yeah, dad and uncle and grandpa, they all sleepwalked, too." So sometimes it's something that just is a genetic, but can be triggered.

Caroline Okorie, MD (guest speaker):

In terms of what to do about it, this is the hardest part. So especially with night terrors, to clarify them from sleepwalking, there's nightmares where you have a bad dream, you all know that. The kid wakes up, the parents can comfort them. They say, "Oh, I had a bad dream. They can talk about it. They know what happened." Night terrors are different where they can last for several minutes and the child is frantic, the eyes might be open and the kid just might be flailing about screaming, just sweaty and unable to be consoled.

Caroline Okorie, MD (guest speaker):

This is one of the most challenging for parents because how heartbreaking it is that you can't comfort your own child. And the next morning the kids actually don't even remember that it happened. So the whole household might be frazzled, but the kid's like, "What happened?" Well, when those things happen? So for night terrors and with sleepwalking, it's actually best not to try to wake up the child. It's our instinct to try to do that, to snap them out of it. But sometimes that can actually lead to injury of the caregiver or the child, who maybe punch or kick without really knowing what they're doing.

Caroline Okorie, MD (guest speaker):

The best thing is really to keep everyone safe. So if you know that a child tends to sleepwalk and move towards a stairwell or has a few kids who've actually left the house, who've gone out the front door, so setting up a bell on the door to alert you when your child's up, putting a gate or some kind of protection at the end of the stairwell, or trying to gently guide them back to their bed or to a place that's safe. But not trying to snap them out or wake them up is recommended.

Ruth Adewuya, MD (host):

That's great. Thank you for those practical tips and advice. I want to talk about school because you alluded to it several times and you've also mentioned how students can sometimes experience stress and anxiety, induced just by school and homework, all of that. Schools are back in session, coming back in session for some. It can be very difficult for children and adolescents to adjust to the school schedule.

How can parents help their children make the adjustment? If they are talking to their clinicians, how can clinicians help their parents help their children make the adjustment?

Caroline Okorie, MD (guest speaker):

Yeah, the summertime, for many people, even for me growing up, it's a time of flexible schedules and sleeping in and not really having a routine, a structure for a lot of people. And I think that's great. That's wonderful to have that time. But it's really hard to go from having no structure to structure. It's already stressful to move to school, and then you add that on top.

Caroline Okorie, MD (guest speaker):

So my recommendation for those who maybe aren't still quite have started school yet is to actually try to do it gradually. The younger the child, I say the more gradual the transition. So sometimes it might be just shifting your wake-up time by half an hour every day, every other day, just until you get closer to where you want to be. Starting to actually develop a little more structure in your day, have a regular lunch time, have a regular dinner time, have breakfast in the morning as a family, just start to reestablish structure.

Caroline Okorie, MD (guest speaker):

And then, also, thinking about the transition in a positive way, I think, is actually really important. So you can even talk to your kid about not like, "Oh, summer's almost over," but actually focus on, "Hey, what are you looking forward to in this new year? What are you going to hope to do?" So it's almost like you're helping the child transition, but also look forward to the transition as well, too. So my biggest thing is if you have the time, and if you anticipate in time, gradual transitions, the more gradual the younger the child and then really trying to have a positive anticipation for the change.

Ruth Adewuya, MD (host):

I also want to mention the recent California law mandates pushing back school start times for many middle schools and high schools. How do you think this would improve students' health and performance?

Caroline Okorie, MD (guest speaker):

This was lobbied for by many clinicians and sleep specialists because, just going back to what I alluded to earlier, where we know especially for a lot of teens and those post-puberty children, is that they tend to want to go to bed later and wake up later. With school starting as early as 7:00 AM, 7:15, a lot of kids feel like they're not even awake for the first one to two hours of school. And so they feel like their learning is affected. And so our hope is that having a later time, so for middle schoolers, it's no earlier than 8:00; for high schoolers, no earlier than 8:30, that it actually will help them to be ready when they start school in the morning. So we hope it's going to actually come to having an easier time for kids to start school.

Caroline Okorie, MD (guest speaker):

I know the tricky thing that a lot of people were struggling with before is, what about parents who have to drop off? Totally understand that that is a stress for many parents, and I'm hoping that especially with the time of the pandemic and things have become more flexible in a lot of people's jobs, that hopefully that can translate there and actually makes this more feasible.

Caroline Okorie, MD (guest speaker):

The law, they actually tried to pass it... It was actually passed a few years ago, but got vetoed partly because of those concerns. So I'm hoping if one thing that came out of this pandemic is that caregivers and parents have more flexibility in their work schedule so they can better accommodate this new school schedule.

Ruth Adewuya, MD (host):

Yeah, going back to the theme of interconnectedness, that law wouldn't be successful without workplaces giving parents the opportunity to actually make this happen. That seems to be a theme for our conversation.

Ruth Adewuya, MD (host):

What are your thoughts on melatonin? I think that's another huge question. I understand that many parents may give their children melatonin to help regulate sleep schedules and preparations for school. Are there any health consequences to this, whether short term or long term?

Caroline Okorie, MD (guest speaker):

It's actually been a hot topic in the news as of late, where they're finding that the use of melatonin is just up in the last decade, and they're finding that there's even more ingestion or overdose reports for children being report to the Poison Control in relation to melatonin. It's a really important topic. You get a bunch of sleep doctors in a room, we could talk about for hours.

Caroline Okorie, MD (guest speaker):

So just to remind people, melatonin is naturally produced in our brains where our pineal gland in our brain secretes it usually a couple hours before our typical bedtime, and it's supposed to signal our brain, "Hey, it's time for you to start getting ready for bed." We start to feel sleepy, we fall asleep. About a couple hours before we typically wake up in the morning, our brain stops secreting it and then it's out of our brains and then we actually wake up. So it's part of actually what sets our circadian rhythm and our daily cycle. So it's something that's natural in there.

Caroline Okorie, MD (guest speaker):

Exogenous melatonin, or taking it, has been used for jet lag, circadian rhythm dysfunction, it actually has really great studies for helping people shift that circadian rhythm either forward or back as needed. It's important to note that a lot of those studies and those therapies are with really low doses of melatonin. We're talking like less than even a milligram.

Caroline Okorie, MD (guest speaker):

Now, I say all that background where a lot of people now I have been using melatonin for insomnia, right? They're like, "I'm having trouble falling asleep, and let me take some melatonin." And if you go to the stores, you will see all various doses, 1, 3, 5, 10... 15 milligrams, I've even seen. There's really no data to show that you need high doses of melatonin at 10, 15 milligrams.

Caroline Okorie, MD (guest speaker):

There's one condition that sleep doctors do use high-dose melatonin, and that's for something called REM Behavior Disorder, which is where people act out their dreams. It's usually seen in older males, but

that's usually the one time we use high-dose melatonin. Other than that, it's actually not typically something that we recommend.

Caroline Okorie, MD (guest speaker):

And so I think the concern, as a sleep doctor, I do use melatonin as a tool, but really the number one thing for all my patients is behavioral interventions. How's your schedule? Are you getting daylight? Are you still getting fresh air? All those things that I know sound like boring are actually-

Ruth Adewuya, MD (host):

I was going to say behavioral interventions are so hard.

Caroline Okorie, MD (guest speaker):

I know, it's hard because the people are like, "No, just give me something that's easy and that will fix everything." Unfortunately, we know that, really when it comes to sleep, it's actually how you spend your day really predicts how you spend your night. Sleep doctors, especially pediatric sleep doctors, that's really what we stress to do first.

Caroline Okorie, MD (guest speaker):

Now there are definitely some cases where I use it as a tool to help reestablish a new routine. So I've definitely recommended, "Hey, the first couple weeks while we're trying to get your child in a new routine, let's try low dose melatonin, 0.5 to even three milligrams, and let's see if we can get them back on track." Also, I see a lot of patients in my clinic who have ADHD, autism and other developmental delay, and we actually know that those kids, they don't actually secrete melatonin at a regular time. So those are actually kids who tend to benefit most from taking melatonin, because their brains are not quite giving them this regular cycle. So if you look at a lot of the studies on melatonin, it's actually on kids who have autism or ADHD.

Caroline Okorie, MD (guest speaker):

Now with the studies, a lot of people ask me, "What's going to happen in 20 years if he takes melatonin?" We don't know. We haven't studied it. They don't really exist. There's a few two-year studies, three-year studies in kids who are, again, with autism or special needs who are given melatonin. We think generally it's pretty safe, but we don't know what the long term effects are and people are still studying that today. That was a very long answer.

Ruth Adewuya, MD (host):

No, that's the information that we needed. Absolutely. I think that your response is such a great segue to my next question around screen time and behavioral interventions to help with sleep, because I know, and I'm sure you agree, that over the past three years of the pandemic, we've had a lot of people having a tough time sleeping because of events. But then I also recognize that even outside of the pandemic, teens have had a lot of trouble with sleep. Can you talk about the correlation between screen time impacting teens' and pre-teens' quality of sleep, or are there other factors that play around kids developing sleep issues in that age range?

Caroline Okorie, MD (guest speaker):

Yeah, it's multifactorial, for sure, for kids in that age range. And I actually was just talking to patients just yesterday and I was saying, "To be fair, you got it a little tougher. When I was a kid, I didn't have a phone or tablet or a smart speaker to distract me at night. I wasn't getting dings on my iWatch." So in my mind I can think easily, "Oh, I can imagine being without my phone at night. It doesn't seem too foreign to me." But I realize that this new generation, it is a foreign concept to put your phone away or turn your phone off.

Caroline Okorie, MD (guest speaker):

So I say that, and I say that with so much sympathy. I really do understand that it's a different era. We know that getting lights exposure right before bed, one to two hours before bed, can actually push your bedtime a little later. It can exacerbate insomnia, it can contribute to circadian rhythm disorders. So one of the things I always tell all my patients is at least an hour before bed, turn off the screens, dim the lights in the house, start to slow things down.

Caroline Okorie, MD (guest speaker):

The pandemic, I think, made things a little bit harder because we lost a lot of our routines. So we had a lot of anchors. We got up in the morning, we took a shower, we groomed, we got dressed, we left the house, and then we came back in the evening. We had that routine. And then in the pandemic, a lot of people lost that routine. We had a lot of teens were like, "Well I don't really even get out of my bed or change my clothes or anything, because I'm not going anywhere. What's the point?" And so some people are definitely moving out of that again. A lot of people lost that routine and with that losing routine, that made the sleep a little bit worse.

Caroline Okorie, MD (guest speaker):

And then we all had to be on our screens. We had to be on Zoom. Kids had to now start to learn on their computers for seven, eight hours a day. So a lot of the things exacerbated what we already knew were the issues. Usually just talk to the kids themselves, because really, they have to buy into it: "I hear you, you have all these demands. Where can we take away the screens or what time seems reasonable to you to transition to something else?" And usually if you ask most teens and preteens, they can come up with a time that's reasonable. They'll be like, "Oh yeah, I could." Or I'm like, "Hey, can we charge the phone outside the room?" "I guess we can." Sometimes I get, "But it's my alarm." And I'm like, "We can buy a $2 alarm clock and just keep the phone outside the room."

Caroline Okorie, MD (guest speaker):

To answer your question about do I think electronics have affected it? Yes, screens and the light is part of it. The other thing I want to add to it, it's also the content. If you're on social media and someone is saying something bad about your friend and you're looking at that, that's also going to keep you awake, too. So it's not just the light. So a lot of people say, "Oh, but I wear blue blockers, so it's fine." I'm like "Not quite, because it's also what you're looking at can be stimulating, as well." Really having that hour before bed, at least, where you can at least take the screen away and do something that's calming and soothing and transition into sleep, hopefully that will help. And then going back to having that routine, like I talked about, how you spend your day often determines how you go to bed at night.

Ruth Adewuya, MD (host):

Yeah, I think that's such a great takeaway. How you spend your day affects how you sleep, as well. That's excellent. But then we talk about the impact of screen time on kids' sleep. Then you also have these

apps that are on phones that are also meant to help us sleep. What are your thoughts on those sleep apps?

Caroline Okorie, MD (guest speaker):

I know. It's hard. I ask, "What helps you fall asleep?" They're like, "Oh, this app on my phone." I'm like, "Well, hmm. Okay."

Ruth Adewuya, MD (host):

Exactly.

Caroline Okorie, MD (guest speaker):

Again, I think it's... For discussion, it's all individualized. With my teens, my adolescents, it has to be a partnership. So I say, "Okay, can you have it where you can play your meditation app, play for half an hour, don't look at the screen, turn it over, and then have it play whatever soothing sounds or stories or whatever that you have?" So I'm a big fan of the apps because again, that's the generation we're in. But I really just say, "Hey, can you turn it on and not look at it?"

Caroline Okorie, MD (guest speaker):

I also have a few patients who just use their smart speakers, ask their smart speaker to play their meditation music or play their bedtime story or whatever. So then they don't have to actually look at a screen. They can just talk into the room.

Ruth Adewuya, MD (host):

You talked about the cycle of sleep deprivation that happens with sports and heavy coursework and extracurriculars, and they do it all over again. And then on the weekends they might try to sleep in. Is that helpful in terms of resetting or getting into a really good sleep schedule?

Caroline Okorie, MD (guest speaker):

That's a great question. It's important to know that the only thing that replaces sleep is sleep. So I tell people, if you're sleepy and you need to sleep, that's the first thing. People say, "Is it okay that I do extra sleep on the weekend?" I'm like, "Sure, if you need it, please sleep." However, if you're only sleeping six hours during the week and you need to sleep 14 hours on the weekend and then six hours during the week, then that tells me that you're depriving yourself of sleep during the weekday and you're trying to, quote, "catch up". You'll find it's not enough to feel optimal.

Caroline Okorie, MD (guest speaker):

So what I recommend is try to get more sleep during the weekday so you don't have to spend that 14, 15, 16 hours catching up over the weekend. You need a nap, take a nap. However, if you need a nap more frequently than typical, or you're taking naps so late that it's now making hard for you to fall asleep, which then makes you stay up late, and then makes you take a nap the next day... If it's going into a cycle, then you need to fix it. But I'm glad that a lot of adolescents are getting the extra sleep that they need over the weekend. But I would love that they just don't deprive themselves during the week.

Ruth Adewuya, MD (host):

I'm curious, what is a typical nap schedule for adolescents?

Caroline Okorie, MD (guest speaker):

Ideally, it would be great if teens shouldn't need a nap, that they're able to get things done during the day that they need to, and they can consolidate their sleep at night. So going back to when you're a baby, you're sleeping up to 18, 19 hours a night, and then when you're still an infant, you consolidate to sleep at night and maybe two naps during the day. And then you get to be like toddler age, maybe you're taking one nap and usually around the time you hit kindergarten, four or five, you can drop that nap and have all your sleep consolidate at night.

Caroline Okorie, MD (guest speaker):

So anytime if I've a school age kid or an adolescent who's telling me, "Oh, I nap three, four times a week or every day," I'm always like, "Why? What's going on at night? Are you getting enough sleep at night?" So that always makes me want to ask more questions.

Caroline Okorie, MD (guest speaker):

Young people will ask me, "What about biphasic sleep and biohacking? I heard that works well." Again, we're still looking at data. Is it really optimal for an adolescent to have biophasic sleep? I don't know that we know that. Right now we feel like it's best to consolidate your sleep at night, and if you're needing a nap every day or very frequently, I'm always just wondering, how do we actually move it to the nighttime? That might be better. And to be honest, if you think about it, adolescents are so busy, just like you alluded to. They have school, they have sports, they might have jobs. So actually needing to take a nap in the middle of the afternoon's actually not very convenient. Wouldn't it be great if you actually could get more things done during the afternoon and actually just keep all your sleep at night?

Ruth Adewuya, MD (host):

I want to make sure that I circle back to the two terms you used biophasing and biohacking. Can you define those terms?

Caroline Okorie, MD (guest speaker):

Oh yeah. So biophasic sleep is just where people are just basically taking their sleep and break up into two different periods over a 24-hour period. Biohackers are people who are always trying to find the most efficient, effective way to optimize their health. There's a lot of interesting things where people are just trying to find new ways of thinking of things, and I love that people are thinking of ways of "How do we find the most effective, efficient way to make our bodies work optimally?" But for adolescents, consolidating your sleep seems to be what we really recommend at this time.

Ruth Adewuya, MD (host):

As we wrap up our conversation, what's your take-home message for clinicians around sleep and its impact on mental health?

Caroline Okorie, MD (guest speaker):

I have the privilege of being able to spend a little bit more time talking about one aspect of their health. Our primary care providers out there have to cover so much in a tiny bit of time. I definitely recognize that someone might be listening to this thinking, "Oh my gosh, now there's one more thing I got to add in my 15-minute sliver or 10-minute sliver of time." If you do have the opportunity or feel like you get a hint of doing something, trying to just screen for sleep disorders, asking kids what they think about their

sleep. All of us can really make an impact. Just like us talking about preventing smoking, avoiding risky behaviors, just stressing prioritizing sleep at every visit, just having that drumbeat of message, kids are listening. If possible, trying to bring up sleep just even a little bit for adolescents, especially.

Caroline Okorie, MD (guest speaker):

And then in terms of, "Hey, I know there's a problem. I don't really understand what's wrong, but there's a problem with this kid's sleep," that's where having sleep providers like us come in. You don't have to have it figured out. Using your colleagues in sleep is really important and welcome. Just about every pediatric sleep specialty, there's not a lot of us, but I think all of us will say that we absolutely love talking to primary care providers. We love talking to patients, and so using the resources that you have available.

Ruth Adewuya, MD (host):

Thank you for sharing your insights with us on this topic. Clearly it's an important topic, much needed, so I appreciate your time today.

Caroline Okorie, MD (guest speaker):

Thank you again for having me. I always enjoy talking about sleep.

Ruth Adewuya, MD (host):

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