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The Ripple Effect of Stuttering:
A Community-Based Approach
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- [Amy] Once again, welcome to part two in our stuttering series, "Stuttering Assessment and Treatment: A Holistic Approach," courtesy of our guest editor, Craig Coleman. Today's part two is about "The Ripple Effect of Stuttering: A Community-Based Approach," and our presenters today are Craig Coleman and Mary Weidner. Craig Coleman, the guest editor of this series and one of our presenters today, is the department chairperson of Communication Sciences and Disorders at Edinboro University and a board certified specialist in fluency disorders. He is an ASHA fellow, currently serves as the vice president for planning of ASHA, and was a previous coordinator of ASHA special interest group for fluency and fluency disorders. Craig collaborated on the child versions of the Overall Assessment of the Child's Experience of Stuttering, or OASES, which assesses the affective and cognitive components of stuttering. Mary Weidner is an assistant professor and undergraduate coordinator at Edinboro University. Her research focuses on measuring and improving children's attitudes towards peers with communication disorders. She developed the Attitude Change and Tolerant Program, or InterACT, an educational program that teaches children about human differences and how to InterACT with others who are different, and I believe that Mary Weidner is starting us off today. So, Mary, welcome. I'm going to turn over the floor to you.

- [Mary] Fantastic, thanks so much, Amy. It's great to be here with you all today, and we're happy to be celebrating Stuttering Awareness Week. So happy Stuttering Awareness Week, everybody. The namesake of today's presentation is the ripple effect of stuttering, a community-based approach, and when we think about stuttering, this idea really derived from the fact that stuttering is not limited to the person who stutters him or herself. We're really involving a community that is impacted by stuttering. So that might include families. It might include teachers. It might include peers, and when we think about the treatment approach, we should be thinking about all of those persons who are in those ripples. So as we go through today, we're going to be talking about treatment as it pertains to children who stutter, but is also going to

address how to involve parents, teachers and peers in that therapy process as well. These are our financial and non-financial disclosures. And today's learning outcomes are going to address the following. First, we'll describe current treatment procedures for surface-level characteristics and affective components of childhood onset stuttering. We'll explain ways to involve parents and teachers and stuttering assessment and therapy, and to describe clinical resources to improve peer knowledge about stuttering. We will be fielding questions throughout the course of today's webinar. So feel free to ask questions as we go along, and we'll try to save some time at the end as well. We're going to start off today talking a little bit about how we're defining stuttering because how we're defining stuttering is ultimately going to influence how we're treating stuttering, how we're measuring progress of stuttering and also our decisions when it comes to discharge or dismissal criteria.

Craig had presented in detail this definition during the first installment of this series which was number 9215 overview and assessment of stuttering, what every SLP should know. I won't go into the definition in too much detail. I'll just refer you back to that initial webinar, but when we talk about stuttering, we really want to talk, not only about the observable characteristics of stuttering, so the sounds, syllable, word, phrase, repetitions, those prolongations, blocks, interjections, revisions. So those are the things that we can hear.

Those are the things that we notice, but we also want to be tapping into the person's affective component of stuttering. So how they're reacting to their stuttering, as well as their quality of life. So how we're defining stuttering holistically is going to allow us then to treat that client holistically. It's going to allow us to measure progress based on these different domains. If we are only defining stuttering by observable characteristics, and we're actually noticing a person's observable characteristics increase during the course of treatment, well, our data really isn't going to line up because that person might actually be making fabulous progress in terms of quality of life or how they're

reacting to their stuttering. So we really have to look at it in a multi, with a multi-dimensional lens to be able to measure that progress appropriately. I'm going to turn it over to Craig who will start to talk about preschool treatment.

- [Craig] All right, thank you, Mary. it's good to be back here and be with everybody again from last week and maybe some new people as well. We're gonna talk a lot about treatment today, and I know some of the questions that I got last time were really geared toward treatment. So hopefully you all who were asking them have joined us again today and can have some of those questions as they relate to preschool children and school-age children as well from a treatment standpoint. We're gonna start off talking about preschool children and kind of the observable characteristics and how we go about treating them. I'm gonna talk about that.

Then Mary's gonna talk a little bit about the affective components of treatment for preschool children and then I'll jump back in to talk about the observable characteristics and how he would treat them for school-age children. There is a question up there already that I wanna kind of hit as a starter to this whole discussion though because I think it's a really relevant question, and I promise we didn't plant this question. The question was I was always taught that if someone perceives themselves as a stutterer. Whoa, that question, there we go. If someone perceives themselves as a stutterer or having stuttering behavior we should see this child. Do you agree with that? So I guess my response to that would be that if a person perceives themselves as a person who stutters, the question would be why, and normally that's because they stutter, and so if they are getting to the point where stuttering is impacting the way they view themselves. There's no question that that's probably somebody that you'd wanna have in treatment, and I don't know that you're gonna be able to guess with just that information what you should do in treatment, but it's just a good starting point to have a discussion with about being a person who stutters, okay? So we're gonna try to hit on that a lot as we kind of come back to some different things in the treatment process

of talking a little bit about how we treat the observable characteristics of stuttering but also how we treat the individual who stutters and helping them become a bigger part of the community and develop more self, a better self-concept as a person who stutters as well. Now when we think about preschool children generally we think about kids that are under the ages of six to seven here, okay, that's generally the framework that people look at when they think about preschool stuttering and the reason for that age differentiation is that in a lot of cases stuttering can be eliminated if children are younger than that, all right, the window of opportunity for elimination of stuttering seems to close fairly significantly at about age seven or eight, that at that point you're looking much more at the management of stuttering rather than the elimination of stuttering.

Now even for really young kids though in this preschool-age we know that stuttering can be eliminated in some cases but we really got to work hard here to make sure that the message is still that stuttering is okay, and I just wanna kind of refer you back to, Mary had talked a little bit about at the beginning of the presentation that this week is national or national Stuttering Awareness Week and if you haven't seen it yet ASHA has a great video up right now on their social media pages and on the ASHA website by Taro Alexander. He received an award at the ASHA convention last year for his work into helping to spread knowledge and information about stuttering and the video talks about it specifically geared toward school-age, adolescent children but I think it's applicable for everybody and it talks about how it's okay to stutter.

That's the main message in the video and to me when you make that statement it's okay to stutter the most important part of that statement is the period at the end because some people will say it's okay to stutter, let's work on strategy so you don't, and while we're gonna talk about strategies being a piece of the puzzle here certainly it's really important to let children know that this is a part of who they are and it's acceptable. It's just a characteristic they have like needing glasses, like their eye color,

like their hair color. There's a lot of characteristics individually we can look at for people that fall into this category and the reason why this is important for preschool kids at a very young age is that if children at this age are trained too much to focus on fluency it becomes really hard to give positive messages as they get older. For example, you can't in therapy send a message consistently that we should do everything possible not to stutter and then a kid turns eight, nine, 10 years old, and you think well okay this is probably gonna be something that's there to some degree forever and then you just say okay now it's okay to stutter.

That's a really hard pivot to make if you're not sending that message all along, okay? So that's just something to keep in mind. The other factor here that I always like to kind of explain as I go through this is that if you prepare a family for the fact that a child may stutter into the future and we really wanna work hard to send a message that stuttering is okay and it's accepted, if you get that kid to a place where they don't stutter anymore, there's no parent that's gonna come back to you and say you know my child is seven or eight right now. When you saw them in therapy when they were two or three you really sent the message that stuttering is okay and now they don't do it anymore and I'm really upset by that.

That's not gonna happen, okay. What could be very problematic is that if you send the message that we have to do whatever we can to eliminate this and then that doesn't happen, that's a really tough, those are really tough conversations to have to have at some point because it hasn't just gone away alright. So we wanna send that message from a really young age that stuttering is okay and that what we focus on needs to be partially related to strategies but also needs to be much more related to reactions to how much the child is communicating to being able to say what they wanna say and that's really important even from a very young age. Now we're gonna talk about a few different general treatment options or approaches here for young children who stutter and these approaches are gonna fit under one of three different domains. Indirect

therapy, direct therapy and operant therapy, and no matter which approach you use for preschool children they typically fall under one of these broad categories. With indirect treatment you focus a lot on teaching the family and other people around the child various strategies to enhance fluency through environmental modifications. So that might be simplifying or slowing your own language pace down. It might be making sure you take away time pressure on the child. The important piece here is that you're not actually trying to modify or change any aspect of the child speech, okay. Now with direct treatment that's a little bit different because here you're teaching the child to use strategies and techniques just like you would for an older child that we're gonna talk about, you're gonna do it in a little bit more of a young child friendly way, but there still a teaching component here, okay, you're still teaching the child how to do things differently. Now operant therapy is the third type of therapy. We're not gonna talk as much about operant therapy.

I will revisit it again a little bit later, but with operant therapy you essentially praise fluency and you reinforce the need to say disfluent utterances again. So what you may do there as you may say something like oh that was bumpy, can you try it again. The key here though with straight operant therapy is that there's not teaching. There's no component of direct therapy, okay, by definition that's what operant therapy is. So those are just a broad classifications of what types of treatments there are. All right, before I go to the next slide I'm gonna address the question in the dialogue here. For a preschool child drawing a parallel helps understand that it's okay to stutter. I tell them do you notice I speak differently, that's because English is not my native language and I speak with an accent and it's okay. Yes. So anything you can do to draw comparisons to having different styles of communication I think is a positive. So for example, we're gonna talk a little bit about as you go through therapy with preschool children, one of the things you can do that can work quite well is to have some bumpy speech yourself where you say things like oh I got-got a red one, and you say oh see, even I had some bumps there too. That's okay, it's okay to have bumpy speech as long as we say what

we wanna say. So if you do that, you can really model an easier way of stuttering and also model that it's okay and acceptable to have speech that sounds different every once in a while, and that's a really important concept for children to learn because not just with their own speech but with everybody's speech is that everybody is gonna take a little bit of an individual difference in terms of the characters pics of the way they talk. So what we typically do here and I just wanna give you an idea of about what a session might look like from a preschool treatment standpoint, at a young age, you really wanna make sure that you're incorporating some parent education into the treatment process and this is really true no matter what approach you use for young children who stutter. It's important for the parents to be on board with what you're doing.

Every single approach that's out there that I know of that has any kind of evidence at all in the research base relies on parents a lot for preschool children who stutter, okay, so that parent education piece for your sitting down and talking to the parents about stuttering and explain some basic facts, doing some counseling about stuttering, really helps to build the foundation for what you're gonna be working on next and therapy whether that's indirect or direct.

Now the other piece that we try do here to is then we have each session contain some portion of parent education, and then we also have the session obviously contain some InterACTion with the child while the parent observes our InterACTion style with the child. Now that can be really important when you're working on indirect therapy because you're modeling what you want them to do, okay, but it can also be really important when you're working on direct therapy because you're teaching the parents at that point how to work on teaching their child specific things at home, and that's a really important piece here when you're working with preschool kids especially is recognizing that if you're having a 30 minute or 45 minute session during the week or two sessions during the week that's still a really small drop in the bucket compared to

the amount of time they're spending with their parents at home, okay? So we wanna just make sure that we understand the importance of targeting at home what you're working on the therapy session as well. Okay, I see that we do have a question up there. How do you incorporate parent education if you are providing treatment in the schools? Really good question. So now this is remember what we're talking about preschool kids here. So if you're thinking about seeing preschoolers like in their preschool what you may wanna do is you may wanna have some time like even if it's once a month where you set up some time to talk with a parent or what you also may do is make sure that consistently you're sending home materials with the child, if you have a folder that you used to do that or something, where or you can do it through email, that's a much more efficient way of doing things, where you can get parents information about what you're working on, and most importantly what specifically you want them to do at home.

I think the understanding about stuttering in general though is really really important, and I do think no matter what setting you're in you have to have some time where you sit down with the parents and have that discussion. If you don't have access to the parents every session that's okay, but you might wanna do that up front in a little bit of a longer format to make sure that they have an understanding. So just to making sure that they know how therapy is gonna look, the rationale for why you're doing what you're doing in therapy, and what they can do at home to help the child as well. Now as we talked about before indirect therapy essentially involves making changes in the environment rather than making any changes pacifically to the child's speech. So we don't talk about settling it all with indirect treatment, and this was very popular through the 1980s when the diagnosogenic theory was thought to be true. I talked a lot about the diagnosogenic theory in the last webinar that we did last week. So I won't get too deep into it this time but the diagnosogenic theory was basically said that if you talk about stuttering with a child it's gonna cause them to stutter if they already have some disfluencies. Beyond a shadow of a doubt though that theory has proven not to be

accurate at this point, and we would generally strongly recommend that if you are seeing a young child who stutters there's a certain subgroup that we're gonna talk about here in a minute that can maybe get through therapy just with indirect therapy only. Most kids though at this age you're gonna need some combination of indirect and direct therapy, and if a kid is already exhibiting some negative reactions to stuttering, not talking about it tends to only make it worse. Just think for a moment, let's say for example you wake up every morning and your shoulder hurts.

So you wake up, you have shoulder pain every morning and you're not sure what's causing it. So it's causing you some worry but you don't think too much of it but then you say oh my shoulders bothering me and everybody else around you all the sudden will not talk about it ever, is that gonna help you feel better about it or is that gonna make you think this might be really bad and that's why nobody will talk about it, and it also doesn't help you from a support standpoint because sometimes you just need to talk about something that you're going through and not having somebody there to do that with you can be very problematic and only make things more pronounced. So we're gonna revisit in a second these comparisons of indirect and direct therapy.

I just wanna kind of put that out there as a general point when doing indirect therapy. Now some of my colleagues and I, Scott Yaruss, Dave Hammer, we did a paper, a journal article in 2006 where we looked at what specific components of indirect therapy would we want to use when having to do indirect therapy in isolation or more importantly when doing indirect therapy in a larger context of also incorporating some direct strategies, okay? So these are just some examples here of the indirect strategies that we tend to use in our session. We reduce parents communication rates. Now the important thing is here we do not teach people to talk like this or use a sing-song voice like this or stop after every word, that just becomes very robotic. So what we wanna do is we wanna put in a natural phrased approach, sometimes I like to talk just like this when I'm using these strategies with young children who stutter. When I break up my

sentences into smaller parts using pausing and phrasing and the reason why we do that is because it takes away time pressure, gets us to our second bullet here, but it also models a more user-friendly way for the child to speak by putting in pauses, slowing down your overall pace, you really wanna think of this almost as a Mister Rogers style of speech, okay, that's what Mr. Rogers did, he put in pauses. He didn't really slow his speech down to a really choppy or robotic style. Other things we look at are reducing time pressures and demands for talking, meaning that we don't interrupt. We make sure that we're not interrupting children when they speak.

We make sure that we give them enough time, we wait another second or two, and then we respond. We also don't ask a lot of rapid-fire demanding questions. So instead of saying things like what'd you do at school today? Tell grandma what we did we did for lunch yesterday. Are you gonna go on the playground later? You might say things like I wonder what you did at school today. Maybe you can tell me what you had for lunch. I bet grandma would be interested in what we did for lunch yesterday. So those really you invite the child to speak rather than put a lot of time pressure on that they speak now. We also wanna give some tips and talk about how they can provide a supportive environment at home that fosters the belief that stuttering is okay, and it's just part of how we talk sometimes.

We're also gonna talk about addressing negative reactions and really trying to focus on the content not just the way in which somebody is speaking, and we'll talk a little bit more about that in a few minutes. Okay, question. I'm a bit confused with indirect. You do not talk to the child about stuttering, however, you with direct you do talk to the child about stuttering. That is correct. So with indirect therapy you do not really talk about stuttering. You don't really say the word stuttering. You just make modifications to your own speaking and that of the parents to make it more likely that they're going to speak fluently at home. With direct therapy you're teaching things more directly so you are having more discussions about stuttering as well. Okay, now the next few

slides just get into some specifics about indirect treatment. Using the phrase speech approach we talked a lot about that already and what we want to try to do in the session is really slow the parents down when we're training them how to do this to a point where it almost becomes uncomfortable because then they can speed back up a little bit from that. Okay, once you can go very slow, it's easier to speed back up again, and you'll find as you do this as will the parents it's not an easy thing to do, all right, but this also kind of teaches parents at a very young age that modifying and changing the way you speak can be very difficult. So later on when we tell children like things like well just slow down, it's not quite that simple, all right. These questions here we use to modify time pressure a little bit.

We talked about these as a way of reducing demand. So again instead of asking those rapid-fire demand types of questions, you might say things like I wonder what this game does. Let's see if that block will fall down if we put another one on top of it. Why don't we try some chocolate ice cream today? So that again just allows the child to communicate in whatever way they want without putting a lot of time pressure on them, and just think about it for a second for most people who stutter one of the most difficult things for them to say is their name, and that's largely because it's the most time-pressure question they get repeatedly over the course of their life. What's your name? That there's no option to respond to that. It's not like we'll take a few minutes to think about it, then get back to me, it's what's your name, answer now.

So you know that time pressure and that negative experience just builds up over time. Another strategy that we use for preschool children is recasting and rephrasing. Lots of evidence on this in the child language literature as well as a good way to expand children's language bases, but this one, we use it mainly so that the child can hear what they said in an easier more relaxed way. The child knows that the parents or we as the clinicians have heard what they've said and it gives us the opportunity to provide a really good language and fluency model. Okay so let's say for example the

child said something like I-I want some ice cream. You might say something like oh you want some chocolate chip ice cream after dinner. So number one, the child knows what they, the message that they were trying to communicate was sent and got across because I responded in a right way as if they wanted ice cream, but what I've also done there is I've also provided a model that's both fluent, easy and a good language model because I've expanded on their utterance to kind of target both fluency but also to target expansion of language skills as well, all right. Now what we tend to do with this indirect phases is we might start off with about four sessions where we do this parent training, where we teach parents to do these things at home when InterACTing with the child. For some kids that might be enough because they just have a couple risk factors there.

They just need some modifications to the environment around them. They weren't very high risk for continued stuttering to begin with, and this is just a way to make sure they have been pushed along the right path, okay? For other kids they're going to need to go more direct, and so what we decide here after these few sessions is has this been enough and they've made really good progress, or have we gotten to a point where maybe they've made some progress but they need to continue and go more direct. Now if a child comes in and they're already having frustration and negative reactions toward communication, then you probably need to go more direct right away, or at least a little bit faster.

So that's just the important thing to keep in mind. Now as we think about transitioning, okay, I'm going to give you a little bit of a clinical story that I had here of a couple years ago where I had a parent who called me and they were getting therapy somewhere else in a different state completely and she said you know my child is about 4-5 years old, it was somewhere in that area now, and they've been doing indirect therapy only for a year and the child hasn't made a great amount of progress and I'm getting frustrated and I want to be able to work on other things so I think we need to go more

direct, and I said yeah absolutely 100% agree with that. A year is way too long to just be doing indirect therapy. Again I'm talking here about just a few sessions, and I said okay here's how you would go about doing that, and I started talking about how you can work on teaching strategies, you can work on talking about stuttering, and she kind of cut me off and she said no oh no no no wait. We can't do that, and I said can't do what, and she said well we're not talking about stuttering with a child, and I said why, and she said well because they'll just be upset and that's going to scare them and worry them, and I said well okay you're going to have to step back for a moment explain to me how you plan on going more direct without talking about it, and she said well we will just teach him how to use these strategies, and I said okay so it'll be just paint a scenario for you here.

You come into the session, say hey today we're going to work on doing easy starts or we're going to work on pausing and phrasing, turtle talk, and the kid looks at you and says why. How are you going to respond to that, and she said well I'm just would tell them that we're just learning about different ways of talking and wouldn't tell him why, and I said no that it would not be something that I would be interested in doing because that's going to cause a lot of problems later. Number one, you're putting such a powerful label on that term by avoiding it for a long period of time, and then the child is going to start to really worry and think like okay there's something really going on here that nobody wants to talk about.

So you got to be willing to it to have some conversations about it too. So couple questions here. What is tracking of progress look like within the indirect model for insurance coverage purposes? Okay, good question. I don't know that the data tracking looks much different than it would by doing direct therapy, except that you would just be basically looking at number one, how well the child is speaking from a fluency intention and secondary behavior standpoint because you're only working on indirect therapy here so you're only really going to be able to assess the outward

behaviors that you're seeing. Second aspect of that would be how well the parents are actually using the strategies that you're teaching them because if you know those implementations are not working at home, they're not being successful because the parents aren't implementing them, then you would want to know that, but you can do fluency measures. Now here's what I would say about that. If you do four sessions with a kid or six sessions and they're still disfluent, but they've made a lot of progress, they seem to be heading in the right direction, their disfluency rates have gone down, maybe the tension and secondary behaviors have gone down, I would say I might continue to give that kid about maybe another month or two to see if those strategies continue to keep working in bringing it down before I go more direct. If I see a disfluency rate in like a severity that's staying about the same or even increasing, then I want to go more direct right away.

Okay, a couple of other questions. Approximately how long do you usually see your clients who stutter? I struggle with when to discharge when our goal is 90% fluency, but the stuttering may still bother the child or the adult. Okay these are really good questions that I think. Heather, these are really good questions to ask. I'm going to ask you to ask these again if we haven't hit them along the way in the presentation today because we will actually have a specific section about discharge criteria, but one of the things I'm going to say is a good discharge criteria to have is not just based on fluency. So one of the like arbitrary numbers you see is that 80% or 90% fluency thrown out there, and it doesn't really mean a whole lot when you get to looking at all the aspects of stuttering that we'll talk about today.

Would calling it bumpy speech be considered enough at a young age or would you want to use the specific term stutter? Yeah, so at a really young age for preschool kids, I think calling it bumpy speech is better because it's not as abstract of a term, okay, so that's just something to kind of keep in mind as we go forward, and actually this is on the next slide. When we talked about the S-word how it's okay to use the word

stuttering, some children may find terms it like bumpy speech more concrete at this age. Now when kids hit like seven, eight, nine, I think you want to definitely start using stuttering consistently and moving them out of the bumpy speech, but at preschool levels, yes absolutely you can do that. The thing here to remember is that every child's going to be different in how they view their stuttering. Some children are going to be more sensitive to it. So you want to try to maintain as much encouragement and reinforce their desire to communicate as much as possible. One of the things I'll say about using the S-word and talking about it, I get a lot of parents at times when I'm doing evals with young children that will say things to me at the beginning like so where we going to go talk about this at, and I'm like well we're going to do that right here, and they're like no no but we have to go someplace like secret so that they don't hear us talk about stuttering and I don't do that.

So again I want to send a message to the child very early at the diagnostic, this is something that we can talk about openly, honestly, in a not scary way to be able to give everybody here confidence, number one, that we know what we're doing from a clinical standpoint, and number two, that we have a good idea of how we can help this in a positive way moving forward not in an avoidance way. That's one of the things that we want to try to get people out of very quickly. Now having said that, I do think the last bullet on this slide is really important. You really want to try to avoid negative words as much as possible.

So for example a lot of times I will go get the kids in the waiting room and say things to the parent like how was this week, and they'll say oh he's having a really bad week. So that's a really good place for me to stop them and say okay talk to me about what a bad week means, and normally that will be he's being more disfluent this week, and so that will be a good learning opportunity for me to teach the parents that that's a way to say it is to be descriptive, to say he's being more disfluent this week, he's having a little bit more bumpy speech this week. That that's how we want to talk about it because

having a bad week based only on disfluency means disfluency is bad and that becomes problematic very quickly, okay, just as when the child goes a week where they don't stutter just a stutter as much, the parent comes in and says oh we're having a great week this week. That's just as problematic because what happens there is a child equates okay if I'm fluent that's great. That means if I'm not, it's not, okay, so be descriptive. We don't want to, avoiding subjective labels is probably the best way to put this of not being subjective of just using more concrete descriptive terms. Okay, another question. Are there factors for potentially getting over stuttering completely the same as for developing factors for stuttering in the first place, and I'm sure this question is about some of those risk factors that we talked about last time. So yes, you're going to evaluate those risk factors.

They're going to tell you some information about the child's likelihood of being completely fluent with therapy, but I'm going to throw that big caveat in here, you really can't predict that. I have seen kids who have come in at the preschool level who look very very mild and a year later they still look very very mild and nothing has really changed in a year. On the flip side of that, I have seen kids who have come in and looked very severe. Six months later they don't stutter. So there's genetic factors that are involved there.

There's a whole bunch of different things that go into that. So we can sit down and we can assess risk factors, but you know if a parent ever asked you, which this is a question you will get all the time, if a parent ever says to you what's the likelihood of my child growing out of this and not stuttering ever again, you don't have the ability to predict that. Now we know the outcomes are better certainly if you get to them earlier in treatment. So the chances of them getting to a point where they don't stutter, or at least very minimal or mild, are much much higher at the preschool levels, okay, and that's a discussion you can have with them. Now when we think about going more direct, direct treatment that involves working with the child to target improving their

fluency or changing their stuttering in some way just like we would do with older kids and adults. So we might teach them various types of talking. For example, turtle talk is when you go nice and slow by putting those pauses in just like we taught the parents earlier in the indirect sessions, okay? So the speech might be a little simpler here, but you're teaching the child to put in the phrases and use a phrased speech approach so that they can slow their communication rate down. Now rabbit speech on the other hand is when you go very fast like this and you don't put in pauses and you just keep going and going and going.

So you can contrast those two with a child pretty well. First by starting saying okay you tell me as this clinician when I am using turtle talk and when I'm using rabbit talk, then when I tell you to do turtle or rabbit, you can do them, then when you do rabbit and you go really fast and the child says I want to play that game over there, you can say like okay that was really good rabbit talk 'cause it was really fast, let's try that one again, talking like a turtle, okay? Kangaroo speech might be where we ha-ha-hop on our words just like this. Snake speech might be where we s-slide like that. Teaching hard versus easy bumps is a really important concept. E-easy bumps are when you go nice and easy like that, and you have some disfluency, but there's not a lot of tension or struggle and you get out of it pretty quickly, okay?

Hard bumps or when go like that. And there's a lot of struggle, a lot of tension, a lot of secondary behaviors, and that helps you be able to distinguish again with a child that concept of there's not just one type of stuttering. So if I have a kid who's blocking pretty severely and doing those hard bumps, what I can say to him again is wow that was a really good hard bump you just did. Let's do the same thing again but let's make that bump easy. So instead of saying today is Tuesday. We could say T-today is Tuesday. Now what I'm not doing there is I'm not having the child say it again just so they can try to be fluent. I'm having them say it again so they can specifically work on doing the easy bump. Teaching easy starts is another way. When you start your

utterances, you make the first sound as easy as you possibly can just like I'm doing right now. So it's sort of like a blend between an easy start and a light contact, okay? Okay, question. Is there any reason why we can't move right into direct treatment and teach parent and child at the same time? No, good question and absolutely not. Honestly if I have a kid who comes in who has a lot of negative reactions, I do that 'cause I want to try to hit the reactions as quickly as possible and have those have that direct work right away while still incorporating the parent education piece as well. So yeah you want to have the option to do that too.

Now when we talked about operant treatment, okay this is something that I don't use. I use a combination of indirect and direct because my experience with operant and seeing other kids who have gone through operant just has not been overly positive, but operant involves praise and negative reinforcement. Lots of cautions here because if you are providing operant conditioned responses you're essentially saying that stuttering is caused by a behavioral underlying disorder. We know that it's not. You can't operant conditioning your way out of things that are genetic and neurological, okay? You can't take somebody who wears glasses and just tell him to try to see better. That doesn't work.

So you know this is kind of the same thing. I wear glasses. I have since second grade or contacts. If tell me to take them off and then you reinforce me for seeing things far away, I'm just going to like drive my car until I get right next to them and can see things closely because that's not going to work for me. So it's lots of cautions there. Now when you think about the the practice of preschool treatment, again, we use some combination of direct and indirect depending on the child's needs and the family's needs as talked about what we talked about just now with when to go more direct. So the big thing to remember here though too is that stuttering is highly variable at this age. Progress is not usually going to be linear. What you want to see is the more consistent periods in that the peak's getting longer while there's more challenging

periods get shorter, okay, but there's so much from a developmental standpoint that is happening for preschool children that inevitably you're going to have some peaks and valleys. You're going to have some growth spurt along the way where they just have a language burst and you may be their coordination can't handle that yet right now. So you just have to be prepared for that in terms of how the progress looks. All right, before I turn it over to Mary to talk about affective components about preschool treatment, I'm gonna answer the two questions that are in the block. If you have a child who went from severe to mild using indirect, do you then go direct? Really good question. So if there's a reason to, yes. If they're at a point where they are mild and you know it's just some easy repetitions that I really wouldn't even consider stuttering then maybe I would wait a little bit to see how they would do with that and make sure that they continue to get better and don't go back to where they were before, but if they're still having, they're mild, but they're still having some maybe negative reactions and maybe a block here in there, then I would still want to do a little bit of it of direct therapy just so I can teach them some strategies to use as well. Okay the other one was actually about technical issues. So I'm going to skip over that one for my purposes, and I will turn it back over to Mary.

- [Mary] Fantastic. Thanks, Craig. We are going to delve into talking a little bit about treating the affective component for preschool children, and as we know developmentally preschool is a really exciting and interesting and very complicated time. There's a lot going on beyond the scope of a child's communication that's really going to impact how we're working with this child in therapy. One of the the most important things that's occurring at this age is the development of theory of mind, the awareness of, children's awareness of both themselves as well as other people and how those differences might make them feel. There's been some really interesting studies over the course of the past couple of decades that have looked at the attitudes of young children who stutter towards their own speaking, and what we find even in the preschool years is that children who stutter actually report inferior communication skills

compared to other children. So we really want to be in tune to how children are viewing their own speech and addressing that productively in speech therapy. Now when we are evaluating this affective component, you know there's really not one set way to do this, but there are a lot of different characteristics that we want to keep our eyes and ears out for. So these signs might include a child terminating a conversation when they're getting stuck. This can be done in very subtle ways. So if a child is going up to his parent and says Daddy, Daddy, Daddy, I, I, I, never mind, and then walks away from that conversation, that's indicative that there are some effective components that we need to consider. Statements or visible signs of frustration. So the child might say Daddy, Daddy, Daddy, I. Right? So they might do a deep sigh. They might show frustration in their facial expression, or maybe they would say I can't say it, right? This can happen at a very very young age, as earliest as two, three years old. We've. These certain statements can be expressed. Soliciting help from others. So this might be soliciting help from a parent. This might be soliciting help from a peer or a sibling. Mommy, Mommy, I, I, I can't say it.

You say it for me, right? So they might defer to somebody else because it's not easy for them to get their words out. They might have other behavioral or avoidance responses during communication exchanges. Now this is different than just your typical tantrums that we see in all children, but specific to when they're trying to communicate. So this might be things like hiding under a table or maybe tantrum-ing because the words aren't coming out. It might be walking away from a communication exchange. Some secondary behaviors we also want to keep our eyes and ears out for and these can also be very subtle. It might just be a pitch change that happens ever so quickly so it might be I wanna go outside, right? There's the loss of laryngeal control there, but there's also typically a level of awareness of that loss of control which can be associated with some frustration. The important thing to remember here is that when we are talking to a child and working with a child to target some of these affective components, and we'll talk a little bit more specifically on ways to do that, but we want

to make sure that we clearly communicate with the parent our intention kind of moving forward. There's a lot of reasons for this primarily dealing with readiness on behalf of the parent. So Craig already talked a lot about the importance of educating parents about stuttering, what it is and isn't, but we also want to get the parents' information, the parents' preferences, maybe biases that the parents have for the direction of therapy because it can backfire. So if a parent isn't ready to allow their child to start talking about some of those affect of components, you might lose the parents in the process, and I'll tell you a clinical story to illustrate this. So I was working at an outpatient facility and one of my colleagues went on maternity leave and she has been working with this preschool kiddo who stuttered quite significantly. They started with some indirect therapy, but we had agreed when he came onto my caseload that we were going to shift gears into doing some more direct therapy. So this child became very frustrated when he was talking. He had negative reaction to his speech. He would hide under the table in the waiting room.

He was hyper-aware of his stuttering and was quite frustrated because of it. Parents were always there, both together, both observing behind the two-way mirror, and so on our first session I sat down with the child and we talked about turtle talk, we talked about bumpy speech and very very kid-friendly ways and before I know it mom is banging on the office door. She came around to the other side, and she was hyperventilating and she had hives breakout from the top of her head all the way down to her chest, and it looked like she had seen a ghost, and she said we do not talk about stuttering with our child and so I talked to the mom a little bit more privately about why that's occurred, and it turns out that the child's grandfather had stuttered very very severely and continued to do so, and it was a very taboo topic in their family. So this was an issue with the family culture being that we do not talk about stuttering. This is not a topic of discussion, end of story. So what happened in that moment was I missed out on a really good opportunity to have that conversation with the mom at the outset of this child coming onto my caseload about how important it is and why we

were going to shift gears to direct treatment, and that was to reduce the frustration, to reduce the physical struggle to make it easier when he did get stuck to improve his overall quality of life and what ended up happening is I was removed from that case and they ended up going elsewhere to continue doing indirect therapy which was not what this child needed clinically. So it's really really important to be having those conversations with the parents at the outset of therapy and why that's important. So really including that educational piece there. When we're working with a child and talking about some of those affective components, it's also important to keep in mind that the child's lexicon is also developing, and they might not have the nuanced terminology that adults have to describe emotion or to describe when things are happening physiologically.

So part of therapy during this stage is to help the child develop whatever terms those might look like. So somebody asked earlier, are we using the term bumpy speech or you know are we using the term stuttering, and you know I would say again to reiterate whatever is going to be the most concrete for that child, but also what's going to best capture the type of disfluency he or she is demonstrating. So if it's a re-repetition, we might call that bumpy speech.

So it, or bouncy speech. If it's a block where no words or sounds are coming out, we might say that child is getting stuck and teach them to talk about their speech in this way. If the child has a prolongation we might introduce the term oh that what was a little bit stretchy, that was stretchy speech. So now they're empower to talk about their speech very concretely with terms that they understand. When we're talking about the emotional component, you know children might have very kind of basic terms. I am mad or I am sad or I am happy, but things like frustrated might need to be defined for them. I can see in your face that you're feeling frustrated or maybe you're feeling a little bit confused why your speech is, why your sounds are getting stuck or why they're a little bit bouncy. So to be introducing some of these more nuanced emotional

terminology can be really really empowering for that child. Praising the communication attempt and not the fluency. So Craig talked about this a little bit before. Just to reiterate if a child says I, I, I, I want the chocolate ice cream, right, we're not discrediting the fact that they had a beautiful well-constructed grammatical sentence, right? We want to praise the attempt, okay? We don't want to say oh you said the words chocolate ice cream beautifully, or you got a little bit stuck on that first one. Try that again until it's fluent, right, so we really want again to send the message that it is the content of a child's utterance that matters and not whether or not it's fluent. We also want to demystify what's happening physiologically. If a child is in a block and has a lot of physical tension, they might be really confused what's happening physiologically.

So to give them an understanding of what that means and what's actually occurring can be really really helpful and demystify what's actually occurring in their sound system, in their speech system. So this might involve teaching some very basic anatomy. Your neck, your throat, your windpipe, your tongue, your teeth. When children are able to identify those basic anatomical parts, they're going to be able to better describe the location of that physical tension. So in some cases if we're talking about direct treatment, they can ease out of that.

So they might be able to use strategies a bit easier if they know that they're getting stuck in their throat or they know that their tongue is really tight when they're talking. We're going to be better able to coach them utilizing some strategies to help reduce the overall amount of a physical tension. There's many different ways that we can have these conversations with children and addressed the affective component of their talking, and the great thing about children is that by and large they want to learn. They are excited to talk about things. They are excited to be engaged, and with the right support can talk openly about their stuttering. Some ways that we have found really effective to do this are things like social story. So we're all probably fairly familiar of

utilizing social stories may be with our children with some other communication needs, and then it's no different with children who stutter. Social story you know by definition is where we're teaching some sort of lesson. We're dealing with some sort of social situation or maybe an emotion and helping children to develop some sort of way productively to work through that. We wrote a book called "Tarby Comes Out of His Shell" which deals with a turtle who has bumpy speech. The turtle is preschool age, and Tarby loses his identity as a turtle who stutters. He gets very frustrated. He feels alone. He wants to go in his shell. He doesn't want to talk to anybody. He feels different, he feels misunderstood. So this is a really great way for children to start opening up about their stuttering.

So we've used this extensively, but you can also tailor any type of social story to your child who stutters. If they're having a really tough time maybe initiating conversation with a peer because of their stuttering, if they're having a hard time raising their hand in class because of their stuttering or asking a friend to play on the playground, that would be a perfect opportunity to use something like a social story and give them a very concrete way to work through that scenario. On the right of the slide, you see a drawing.

This was done by a client following the reading of "Tarby Comes Out of His Shell" because this child felt really really alone. He felt like Tarby, and you can see he drew himself in a little shell there to represent wow I get it. And the other cool thing about using a character is that all of a sudden the child who stutters doesn't feel so alone, which you know with a fairly low incidence disorder children might be the only person in their class or the only person in their school who stutters. So to have a character that they can latch onto and recognize that hey it might be a cartoon, but I am not alone here, can be very very powerful. Another activity that you can do with children to talk about some of the affective components is using art. You don't have to get fancy. You don't have to buy fancy programs or flashy programs that are beautiful and a box

and colorful, you can use your resources to provide excellent stuttering therapy, and it can be using fairly basic supplies. This is, these are two pictures drawn by the same girl about three months apart. On the left hand side, she depicted her experience of stuttering at school. So here she is as a six-year-old girl, and she was in kindergarten at the time, and she described the picture with the dabber paints as being big dots being when she gets a really big stutter or gets stuck really hard, and the little ones maybe some easy repetitions.

What I found an interesting about this picture is the big black circle that's kind of scratched out in the middle there that she described as a wall. So this is a six year old child who is clearly very frustrated. I mean you don't need to be great at art to look at this picture and see that this is a child that's in really serious distress. Even the expression on her face is quite serious, and if you look really closely it's hard to see in this picture, but there's actually little yellow dots all over her face to represent her stuttering. We did some therapy once or twice a week for several months and I gave her the same prompt again. So draw a picture of when you get stuck, and this was the second picture there on the right was following some pretty intensive therapy, and she described that as being happy and playing on the playground.

So here's a child that went from some serious negative reactions to some pretty stable or neutral reactions in a pretty short period of time given the right support and encouragement and family buy-in as well. This was another child. He was early school-age, about eight years old at the time. He did not like stuttering therapy. It was early, his session was at 8 a.m., and it took everything to get him to walk down that hall to talk to me about about stuttering to do some stuttering therapy. So I shifted gears pretty quickly with him when after we first started 'cause I quickly found out that sitting at the table or even playing games was not his way to participate in therapy. So I think we did weeks of therapy in like the plank position and doing some fun kind of competitions, and finally you know I was probing him and he really did not want to talk

about his stuttering with me at all, and I said okay here's what we'll do. I'm gonna give you some Play-Doh, and I'm going to give you 10, 15 minutes, and I want you to show me what it feels like when you get stuck, and this is what he created. On the far right of the picture there's at the blue Play-Doh if you look closely, it's actually a cage, and in that cage is a little ball, and that ball represented his words. The other blue piece of this display here is a tower, and he called that the Tower of Power, but his words could only get to the Tower of Power if they bounced on the smooth green road and not the bumpy green road.

So this really opened up the door to have some very interesting conversation with this child about what it means to stutter, what it means to be fluent, and separating the idea that just because you stutter does not mean your words have any less power or any less meaning. So it was really interesting to see the way that he associated fluency with power. When we talk about preschool treatment goals we can write goals for both the child who stutters as well as the parents.

This is going to slightly depend on you know if you're doing only indirect therapy or direct therapy or some kind of combination of both, but for the parents we certainly want to make sure that they're implementing strategies that are going to promote their child's overall communication at home. So these are going to be things like demonstrating reduce communication rate as Craig was talking about using on things like pausing and phrasing, use of indirect prompts rather than direct questions. This is a very easy trap for parents to fall into especially following a busy day and if parents are on the go. What did you do at school? What did you eat? Who did you play with? What did you see, right? So we want to help parents use those indirect prompts and self monitor those rapid fire questions. Reducing time pressure. So this might involve incorporating an element of turn-taking, maybe at the dinner table if there's siblings or other people in the household that seem to talk over each other. Using recasting and rephrasing. So these can all be parent-related goals. For the children, reducing

communication rate, maybe using some easy starts, reducing tension and secondary behaviors, improving reactions. So that might be decreasing things like tantrum-ing, secondary communication breakdowns or walking away, secondary to communication breakdown, and increased communication overall. We are going to shift gears and start talking a little bit about a school-age children. So I'm going to turn it over to Craig at this time.

- [Craig] All right, thank you, Mary. I'm going to talk a little bit now about working with school-age children and the observable characteristics that we are going to target there. Before I do that I will hit the question that's in the queue about how do you proceed with school-age children who at least claim to have no awareness of their stuttering? Great question. So I would first want to make sure that's actually the case because most kids when they get to the place of being school-age will have some awareness of it. We're going to talk a little bit, or we talked a lot about assessment last time, and we talked about the OASES as a good way to kind of look at reactions and knowledge about stuttering.

Sometimes those paper and pencil type of tasks are easier for somebody to do when they don't really want to talk about it very much yet, but you want to get a sense of what their underlying reactions are. I would start off by having them do a little bit of those and to see if it's that they don't have awareness or they just don't want to talk about it. If they don't want to talk about it, then you have to work on the reaction side first which we'll talk about today. If they genuinely don't have any awareness, I think you have to as you reach the school-age years and beyond, you have to gently bring awareness to them. Now again, awareness and frustration or not the same thing. We talked about that a little bit last webinar as well, last week, that you can have awareness without having frustration. So if I have a child who is not aware, but let's say they're having some prolongation, some physical tension, then I want to bring it to their attention and talk about it a little bit. If their disfluencies are like this, and then

they just keep going and they get through them fine, I do think you have to assess whether or not treatment is needed at that point if somebody is very very mild to the point of maybe not even recognizing that it's a challenge for them, okay? Now we're gonna talk a little bit about school-age treatment and just kind of an overview here, as children get older treatment in the school-age years is much more about successful management of stuttering and much less about elimination of stuttering. As such counseling skills become crucial as the child transitions to a school-age child who stutters. In conversations about the likelihood for persistent stuttering should occur here, and I talked about with assessment last last time how it's really important to begin to have those conversations even at the the diagnostic. You should start to talk about what goals of treatment look like and what the future is going to be for stuttering in terms of prognosis. Now just a general ideas here of how some sessions may go, as you get to older children your conversations are going to be much more conversational-based.

So therapy is going to be much more conversational-based. You made do question cards, would you rather cards, things like get-to-know-you types of things. Debates are really good as you work with this population. Anything that you can do to get the child talking in a more conversational-based way. So you know when you transition into the school age and older category, your days of playing Chutes and Ladders, Candyland, Hi Ho Cherry-O, those games go down pretty significantly and everything should be a little bit more conversational-based. Here you also want to start to begin having the child take the lead on educating the parents. So even if you have access to the parents, you may bring them into the session at the end and say something like Joey's going to talk you a little bit about what we did today and what he needs to work on at home and talk to you about why, and you can jump in when you need to, but this gives a child an opportunity to really kind of take the lead and take ownership of some of the goals and some of the things that you're working on. Now we're going to talk a little bit about treatment from a couple to couple different perspectives here. I'm going to talk

about the observable characteristics. Mary's going to talk more about the reactions in the affective piece. So when we think about the observable characteristics of stuttering, we're going to talk a largely about stuttering modification and fluency shaping or speech modification. So those are two categories for stuttering strategies that we teach children. Now a couple things to remember here. Stuttering strategies can be learned pretty quickly, and they result in pretty significant short-term gains most of the time because you can teach somebody how to use strategies that they will be able to use when they know that they should use them pretty fast.

The question is are they going to be able to then take those and take them out of the therapy room and use them in everyday speech. The answer will be yes at some point when they want to. So it can be hard to generalize outside of the therapy room, that's why you're going to want to make sure that the therapy room quote looks a lot like the real world. That might mean going out and using these strategies in different situations like ordering food at a restaurant, talking to people on the phone, talking to other people in the clinic or the school, all really good ways of just making sure that the child is not just in the clinic with the clinician because that's not going to transfer very well. The other thing that we have to remember is these things are not easy, okay?

They require a lot of effort on the part of the speaker. Most of the time if you ask somebody who stutters even pretty moderate-to-severely they will tell you that it is harder to use the strategies than it is to just stutter and get through it. Now the best way to think about this and one challenge that I can give parents sometimes when they're having a hard time thinking about it in this way is let's say that for the rest of the week from now until Friday, I told you that your goal was every time you talked out loud you had to stutter on purpose at least one time per sentence. Now you would be able to do that for about 30 minutes or so and then it would start to drive you crazy and you would think I'm not doing this anymore. I'm just going to talk. That's about the length of a therapy session. So what happens when we really focus just on strategies is we

teach them, the child does very well with them. They use them during the session, and we can walk out to the waiting room or call the parents on the phone and we say boy they're doing such a great job of using their strategies everything is going really well, and then the kid walks out to the waiting room and says Mom, can we go to Wendy's for lunch? And you're like oh man. Didn't use any strategies there! So it just becomes like why don't you just try a little bit harder, but it's not quite that easy. Changing the way you speak from a neurological standpoint is difficult, and it requires a lot of energy and practice. So these target only the stutter, the surface level stuttering.

They don't get to reactions, and they're very difficult to use and maintain for a long period of time. The best analogy I can or story I guess that can give you to go along here, I was doing a talk in South Carolina at a state convention there a couple years ago, and I had a person in the audience who was in his 80s, and he came up to me during the break, and I was talking about a lot of this stuff, and he said you know, he said I had therapy when I was younger with the, he talked about a couple really huge names in the field that he had therapy with when he was younger, and he said we used to practice for six, seven hours a day in using these strategies to get to the point where we would just use them consistently, he said and I gotta tell you, he said, I got to the point where I can use them pretty consistently, and I thought what this was going to be one of those moments for me as a speaker where the person comes up to me and says yeah you know you're wrong, but he said, he looked at me, and he said I have to tell you I really wish somebody like you would have given a talk to those people back then because yes I was able to get to that point, he said, but it just wore me out, and I wasted a lot of my life just trying to be fluent and use these strategies and practice them when I really would have rather been doing other things in my life, and so I think that's just an important thing to keep in mind, right? All of us, I really like sports. I've always liked sports. I really like playing baseball as a kid. I like coaching baseball now. If I had to do it for six hours every day, I would get worn out, and so even things we really like to do are hard to do for six hours a day. Things that we don't really like to do

are almost impossible to do for six hours a day, okay, just keep that in mind. Now as we talked about the different strategy categories, first we have stuttering modification. So these goals really target changing the type of stuttering that we're seeing. So what we do here is we change the stuttering either immediately before, during or immediately after the stuttering event, and this focuses on the way the child stutters rather than if they stutter. So the goals here are really to target reduction of secondary behaviors as well, and before I give you some examples of that I'll answer the question the cue. Will treatment be the same for a child who exhibits atypical stuttering such as end of word repetitions? So for a child who exhibits those you're really going to want to find out why first. We talked a little bit about those word final disfluencies is last time.

They could be that a child is just blocking on the next word and they're using that as a spring to go forward. If that's the case, then yes. If it's because of like autism spectrum disorder, OCD, Turret's, which also those can I occur in, then obviously no. The treatment is going to be a little bit broader and different for those populations. Now some examples of stuttering modification are things like preparatory sets, cancellations, and pull-outs. One of the ones that I really like to is something called easing out.

Now the preparatory sets, the cancellations and the pull-outs are essentially straight Van Riper stuttering modification. So what Van Riper would do is that he would start people off doing cancellations where you have to stutter through the word, okay, and then you would go back and modify it. So that would be like like like like like this. So I have to get through the block. I have to get through the stutter on the word, and then I can go back and modify the word and make it easier and try to get through it again. That's a cancellation. The reason why he would start people there is because it was a way to desensitize them to their stuttering as well by my through it rather than allowing them to get out of it quick. Once they had work to that point, then he would move them up to pull-outs. With a pull-out, it's sort of the same concept of going back and saying

it again, but with a pull out you do it in the moment of realizing you're stuck, which would be the like that. So as soon as I realized I was stuck on the word like, I went back and modified it and pulled out. Now preparatory set is a little bit different because this is really hard, okay? A preparatory set is essentially when you think about what you're going to say in your head and practice it before you actually say it. You're basically preparing your speech system to say those words. So if I wanted to say today is Tuesday I would rehearse that in my head first, and then I would say today is Tuesday.

That can be pretty exhausting, especially when you're in conversational speech, and you have to kind of do that on a sentence-by-sentence basis. Now easing out is kind of a combination of a couple different things that I like to use. What easing out is essentially you take the tension at its peak in the block, and then you slowly let the air out, kind of like you're letting the air out of a balloon when it's full of air. So that would be like that. So you slowly modify and you let the tension out as you're going through, okay, and that allows you also to not have to worry about going back and starting over like cancellations and pull-outs required because you might get stuck again when you start over as well, all right?

Now important to remember here that in order to use any of these stuttering modification strategies you actually have to be stuttering. So when you're using stuttering modification this is also a really good time to practice pseudo stuttering where you're having the child practice stuttering on purpose and then using these techniques. That in and of itself will work on desensitization. That's a really important thing to explain to the child and the family because you know why would we want to be stuttering more, but stuttering on purpose is different because you're in control of it. So you know most of these kids that we've seen at this stage they've never stuttered when they've been in control of it. They've only stutter when they haven't been in control of it. So this allows them to feel what their speech systems should feel like

when they are in control. It just gives them the better sense of having control over their system. So that when they get in a block for real they can go back to what it feels like when they're in control. Now these are just some examples here of some stuttering modification goals, okay? So Anika will demonstrate the ability to reduce physical tension during stuttering using easing out, 50% of disfluencies during conversational speech with a clinician. Enzo will use cancellation and pull out techniques for 75% of disfluencies in the structure conversational task. Aaliya will be able to correctly identify the location of the physical tension during 80% of stuttering episodes in a structured task. Simon will decrease the use of any secondary behaviors associated with his stuttering to less than 10% of his disfluencies.

Now you're going to see as we go through and talk about these goals, these are also goals you want to look at when you're looking at discharge criteria like we talked about earlier. It's not just about are they meeting this arbitrary number of a certain percent fluency, but are they able to actually use the strategies consistently when they want to? Are they able to identify where they're having tension at? Are they being able to identify how to get out of being stuck so that is not as much work and effort for them when they talk?

All of those things are really important. So all of these sample goals that we're going to talk about as we go through today are going to be really important when we're talking about discharge criteria as well. Now as we think about school-age fluency shaping these also can be called speech modification strategies. So these are goals to target the reduction in the number of disfluencies somebody has or the amount of stuttering that they do. Now again, I'll go back to that 80% bar, these goals we really wanna view in terms of a reduction in how much stuttering is happened rather than that arbitrary number of how much they can speak fluently. So to give me an example of this, I've seen diagnostic reports before where it will say in the summary of the report you know Mike stuttered 12% of the time today, and then when you get down to the goals it will

say Mike's goal is to speak fluently 80% of the time. Well, based on the evaluation Mike's already speaking fluently 88% of the time if he stuttered 12% of the time. So number one, those goals don't even fit. Number two, they tell you nothing about how much talking Mike is doing, the impact of stuttering is having on him. So what I want to do is I want to write that goal in terms of a reduction from the 12% down, but here's the piece that needs to be mentioned here in terms of this puzzle, we know that if we see a kid who is hiding their stuttering and avoiding and being covert as we go through the initial phases of therapy the number of disfluencies might actually go up as they talk more. So we have to prepare people for that both us as clinicians, the child and the parents because that might be scary, okay? If people might freak out and say oh my gosh.

They were stuttering 12% before, now it's 18%. Well, it might be because they were just talking more now compared to shutting down before. Okay, question. Alexandra, I really like your last name. Can you provide research articles that says kids after seven or eight will likely to continue stutter. So we can share this with parents? Yeah, so we'll talk a little bit about that toward the end of today, but if there's a lot of epidemiology studies out there by Yairi and his colleagues, Y-A-I-R-I, and so you can look at his work. I actually think I referenced them in the talk I did last week. So those epidemiology studies will kind of give you good data on when kids recover. Those are good ones to look at.

Another question. So many school districts strongly urges to write goals with positive language, and so writing to reduce disfluency sounds negative. Okay, so if you're, but if you're writing to reduce, if you're working to reduce the negative, then that's actually a positive. So it is sort of like you know the double negative thing, right? If you're saying that you're going to reduce a negative, you're just like a goal to reduce negative impact, right? So if the child is avoiding, and you say well the child right now is exhibiting 10 instances of avoidance in school per week, we want to get that down to

five. That's a reduction, but it's a reduction of a negative behavior. So that's how you would justify that. If it is too tiring to use the stuttering modifications strategies all the time, when do you recommend your students to use them? So you want to shape all of these strategies to be like a tool box, right? It's there for them when they want to use them knowing that it's not going to be all the time. It may not even be a high amount of the time. A kid may say when I'm doing a presentation at school or talking with somebody new I really want to use these strategies.

When I'm at home with my parents and my family I just want to talk, and that could be another thing that parents have to really be prepared for is they may see way more stuttering at home than other people are seeing because the child is much more comfortable, okay? And I see that Amy has put in the notes at the bottom there, those two references that I had from Yairi Ambrose in the last presentation. So that's perfect, thank you, Amy. Okay, so fluency shaping when we look at those goals are essentially things like easy starts. We talked a little bit about those before. Generally an easy start is when you kind of put like a silent H sound on to the first sound of a sentence. I want to get some ice cream. A light contact is just when you make the contact of the first sound with the articulator is very light, and we go outside. Now what I tend to teach is a combination of the two and just call it an easy start. I don't really like the H sound at the beginning 'cause I think that sounds unnatural.

So what I tend to teach is just them starting out as easy as they can with a light contact that I call it an easy start just because it's a more concrete term for kids to understand. Again, you may do things like teaching pausing and phrasing by putting the pauses and phrases in there to go a little bit slower. One thing you don't want to do though is to tell people who stutter to slow down. Now this seems counter-intuitive if we're actually teaching them pausing and phrasing. The problem is we don't ever say slow down based on how fast a child is talking. We say it when they're getting stuck. So the message that we are sending is not slow down. The message that we are

sending is don't stutter, all right? So that becomes a really difficult thing for kids to interpret what that means because I might be going a little bit slower and stuttering and people tell me to slow down. When I'm going faster maybe I don't get stuck as much and people don't say slow down, okay? Prolonged speech is another one, and this one I would only really teach if children were going through really significant blocks that might be to stretch out their speech just to get them through those blocks a little bit easier. Prolonged speeches is you know a type of disfluencies in and of itself because it's a prolongation, but you'd rather have that easy prolongation rather than a really tension full block. So that's a good transition step to move them out of the really tension full blocks into a more fluid approach that is not as much attention and struggle. So these goals here give you a little bit of an idea of some fluency shaping goals.

Owen will use easy starts 85% of the time in a structured conversation. Adele will decrease the number of disfluencies in a structured conversational task by 15%. Dimitri will use pausing and phrasing 80% of the time in structure conversations with a clinician. Rick will identify times when he wants to use strategies and techniques. This goes back to the last question and sitting down and having a discussion with a kid about when they would want to use strategies and when they don't is really important because they'll tell you like okay I want to use them with this person at school with maybe my teacher and doing presentations. When don't you care to use them? Okay here are the times, and then make sure the parents understand that as well. Okay, I'm going to turn it back over to Mary here is going to talk for a little bit about targeting the effective piece for school-age children who stutter.

- [Mary] So when we're working with school-age children who stutter, right from the get-go even at the time of the evaluation you want to start talking about what stuttering is and what stuttering isn't. We can follow history back centuries of misconceptions, negative public attitudes that have been portrayed through the media and text on and

on and on and on and on until you know present day. There's a lot of mystery. There's a lot of misinformation out there about stuttering and it's been the brunt of a lot of jokes unfortunately, and so we need to help break the stigma of stuttering by teaching what is true about stuttering, and that's going to start by teaching and empowering our children who stutter as well as their communication communities. So what all do we need to talk about when we're educating children about what stuttering is in what stuttering isn't? Well first of all let's dispel some big myths here. Stuttering is not because you're anxious or nervous or shy or less intelligent or less than. Stuttering did not happen because you did something wrong. Okay, stuttering is a neurological, neurophysiological-based disorder.

Often times with children they have a parent or grandparent or an uncle or cousin who also stutter. So you can talk about maybe some of the genetic piece of that. Some people won't be able to track anybody in their family who stutters, and that's okay too. Just because they're not able to track it in their family doesn't mean that they don't have a genetic susceptibility to stuttering. So we can talk about some of those things as well, but not everybody who stutters has a genetic predisposition to stuttering.

Sometimes it just deals with the way the brain works, and what I really like to do in therapy is draw a brain, very poorly, but I'll sketch a brain and say okay this is your brain, and maybe a brain, another brain of somebody who doesn't stutter and say okay when you are talking, you're actually using a lot more of your brain, maybe some different areas, maybe it's distributed a little bit differently, and I'll color that on the brain, again not anatomically perfectly, but to convey that this is something that is brain-based that is dealing with coordination. Now I will say there's nothing wrong with your brain. If I took a picture of your brain and somebody who doesn't stutter, they want to look different at all, but if I took a video of your brain when you're talking and a video of a brain of somebody who doesn't stutter when they're talking, they would look different. So different areas would be activated and you might be using a little bit more

of your brain. It's really cool to see the faces on children if they have a stutterer or a typically fluent sibling to say hey you actually use more of your brain than your sibling does when he or she talks. The more children can know about the disorder of stuttering the more empowered they're going to be. We can also talk about things like prevalence of stuttering. One out of a 100 people stutter. The prevalence is going to be a little bit higher in young children, but we're dealing with school-age children and older children, teenagers, adults, the prevalence is going to be about one in 100. Researching famous people who stutter, the stuttering foundation has a fabulous section on their website dedicated to a list of various famous people who stutter categorized by athletes and musicians and actors and actresses.

So inevitably you'll be able to find somebody that's of interest to the child with whom you're working. When they can feel connected through a personal story, that can make them feel not so alone. This talking about stuttering is, and teaching them about stuttering is also going to help them recognize that this is probably something that they're going to be managing throughout the course of their lives, and that's very important right at the outset of therapy to be talking about, you know Craig and I have both seen a number of cases that have come our way when a child is 12, 13, 14 years old and saying when is my stuttering going to go away, still expecting to outgrow their stuttering be it it a message that they received from their parent or somebody else in their family or a clinician or whoever it might be to still be under the assumption that stuttering is going to go away, and that's a really hard conversation for a child who's been in therapy for a while to realize hey this isn't going anywhere.

I need to shift my paradigm here, and so we're doing a lot of kind of backtracking in therapy. One of my very favorite quotes by Peter Bromberg is he said when we avoid difficult conversations we trade short-term discomfort for long-term dysfunction, and that cannot be more true in stuttering therapy because when we are passing the buck or when we're avoiding having this conversation that stuttering is going to be

something that's likely long-term or lifelong, it's going to make the child feel like they're doing something wrong in therapy. Well, it's supposed to be gone by the time I'm 25 or by the time in 45 or by the time of 55. It's still there I must be doing something wrong, but if the child knows that this is something they're going to have to manage they are going to make that much more progress in therapy, have that much more ownership of their own stuttering and their own stuttering journey. We also want to help a child know as much as they can about the disorder of stuttering so they can educate their peers, they can educate their teachers, they can educate the general public about stuttering the disorder and about what's helpful and what's not helpful when people are responding to their stuttering.

I was involved in a study that asked children just that. What you want people to do when they're talking to you, and you know we have these kind of checklist, these dos and these don'ts, but there was really not a lot of research to back those claims up, but what we're finding is children don't want to be told slow down. Children don't want to be told think about what you want to say, but that's our first instinct when we hear a child and see a child struggling to communicate. If a child is empowered through knowledge and can educate their peers that's going to help to mitigate things like teasing and bullying. Unfortunately, we as clinicians or parents are unable to follow that child around all the time, you know on the playground or in the lunch room or wherever it might be.

So the child is going to have to learn how to be his or her own best advocate and has to know a lot about stuttering in order to do that. So if a child is being teased about the way he's talking and the child doesn't know a lot about stuttering, so let's play this out. So the child goes to the lunch room and there's a little boy named Johnny and Johnny says why do you talk like that and the child responds well I don't know, right? What's going to happen the next day? Johnny is going to say why do you talk like that? You sound weird, and the child's gonna say I don't know, but if the child knows about his

stuttering, and Johnny asked the next day why do you talk like that, and the child says I was born this way. It's not my fault. I go to speech. My brain works a little bit differently. If Johnny try to ask that question again the next day, everybody else is going to think Johnny is really weird because the child already told him what causes the stuttering, right? So the child if they're empowered can nip that teasing and bullying in the bud. The really really really important that the child can be his or her own best advocate. So again these goals, what we're working on are going to relate back to how we're defining stuttering as both the observable characteristics as well as the affective component, and not being afraid to talk about both of those things, causes and basic facts about stuttering.

A lot of children will attach a confident communicator to a fluent speaker. They think they're one in the same, or to be a good communicator that means I must be fluent. However, we know that being a good communicator is so much more than just fluency. So helping a child to tease out what it means to be a good communicator using all of those good paralinguistics, things like eye contact, turn-taking, body language, tone of voice, volume, right? You can be a good communicator and still stutter, right? You can still get your point across and you can still be confident and guess what? You don't have to be fluent in order to do that.

So that can be very very helpful to do that with a child. You can use things like a graphic organizer by you know putting something like good communicator in the middle of a web and then talking about all of the different factors that make a good communicator, and usually fluency doesn't make that list because there's such great other components to become a good, a confident communicator and a good communicator. So goals here should target heavily on avoidance or negative reactions to stuttering. So this is going to go back to the evaluation and making sure we have a really good sense of what a child is avoiding and how they're feeling about his or her stuttering. The OASES does a good job of capturing this information in some various

instances, very speaking situations, and the overall life impact. So to be able to capitalize that then in therapy is very important. We also want to help them realize that their identity is so much more than their communication, right? So identifying things that make them fantastic, things that make them special, things that make them unique, and how they see themselves as a person who stutters, how it's impacting their life. So we want to have some really good hard conversations with these children. Incorporating others that are important to the child. So these might be siblings, friends, parents or teachers, who ever you have access to in your facility would be really important.

One good activity that you can do with children is to establish or create some sort of fear hierarchy of different speaking situations. I like to keep it pretty basic. Use things like post-its, move posts-its around, put them on the wall, to talk about things and rank order situations that might be easier or might be more difficult to a child, and a drawing from some solution-focused counseling approaches to then identify, okay, let's talk about the easy ones first. Why are those easy? Well maybe you know the person. Maybe the person knows you stutter, or maybe the person knows about stuttering. Maybe that's why that situation is easier like talking to your mom or dad. Maybe a harder one, raising your hand in class.

Well nobody knows that I stutter. Nobody knows about stuttering. Okay, well maybe what we can do then is borrow that idea that increase knowledge about stuttering leads to decreased teasing and bullying about stuttering. Why don't we teach your class about stuttering? Why don't we come up with a pamphlet or a presentation, or I can go in as the speech language pathologist, and lead a discussion about human differences or about stuttering, and I want you to be part of that to get a sense of how open a child would be to doing that. Even something as simple as a self-disclosure at the beginning of a presentation. Hi, my name is Cara, and my speech gets bumpy sometimes. Just wait patiently, right? That can take a big load off of the speaker. It can

take a big load off of the listener sitting there wondering why Cara might be struggling with her speech during the presentation. Other situations. Ordering food at a restaurant, raising hand in class, talking on the phone, giving presentations, and flushing out unfamiliar listeners. Are they at a place of worship? Are they you know at a party where they don't know a whole lot of people? Are they extended family member? So we can really make those specific.

A lot of times you know we think that teasing and bullying to have a real effect on a child needs to be occurring long-term or needs to happen several times, but that's not quite the case was stuttering. It can be one hurtful thing that somebody said. It can be one time that that child really struggled during a presentation and somebody made a snarky comment or laughed under his or her breath, right? We need to help our children identify maybe some of those points in time that are negatively impacting the way that they view themselves or what they're telling themselves about their own stuttering. Some sample goals for the affective components. Maya will increase her knowledge about stuttering by scoring 85% or better, on periodic stuttering quizzes. Dallas will educate two to three peers about stuttering.

Gloria will give a presentation. Her family members or peers on stuttering. Priya will be able to identify and explain the process of producing speech and the anatomical structures involved in this process. So lots of different goals talking about avoidance, desensitization and overall participation. Dismissal and discharge criteria, again this is going to relate back to that holistic definition of stuttering. So discharge is going to depend on an individual needs and ultimately how you're defining the observable as well as the affective characteristics of stuttering. Before we say yes let's dismiss or let's discharge we want to make sure that the child has a good knowledge base of stuttering, they're able to use their strategies when they want to. So like Craig was mentioning using their strategies as a toolbox. They have neutral to positive attitudes towards their communication. This can be measured in a number of different ways.

Through conversation, through maybe some more objective measures like the OASES and so on. We're not trying to make our children you know be the, rally the troops around you know this stuttering campaigns. If they are neutral about their speech, then we've done a good job. Little to no impact on their own overall communication and having a supportive communication environment. So again this is going to be ensuring that you know when they go home their progress in therapy won't be totally derailed. The course of therapy is going to look different than other communication disorders. So when we think about our general kind of articulate kids, right, we can expect a linear progression, you know once they establish that sound in isolation and words and sentences and connected speech that usually fairly well-established, stuttering is not the case.

Stuttering therapy can be cyclical. So what I often recommend is before cutting the cord entirely to do kind of a phase-out approach to speech therapy. You know closing out an IEP and reopening an IEP if they need to a couple years later can you really hard, but if you change the wording or the goals to meet periodically or as needed that can keep the child's foot in the door if they need to come back, and sometimes these are for big life events. Maybe a child had a decreased frequency in stuttering therapy in 8th grade.

Senior year in high school, they're applying to colleges, they want a refresher on some of the things that you taught, their IEP is still active, it's not going to be so difficult to get maybe regular therapy rocking and rolling so much as it would be to reopen an IEP all together. We have a couple minutes to touch on parents, teachers and peers. When were talking about parents, and we've already talked about parents quite extensively and how we can involve them with preschool treatment doing some indirect strategies with school-age children making sure the parents are well educated. Parents know their child best, right, and you know stuttering the best, and together if you combine forces you will know the child's stuttering the best, as with the general public. Many

parents are going to think that stuttering is going to go away, that stuttering is because their child is nervous, that it can be cured or that using strategies are easy. So this is where education needs to start with the families. There might also be pretty strong feelings of anxiety or guilt, confusion, fear, frustrations. I worked with a three-year-old child whose grandfather was concerned that the child wasn't going to be able to date in high school. So these are real concerns that the parents have. We just need to reel them in and get them into the here and now. I've been involved in some research both here domestically and collaborating with some Polish colleagues at Katarzyna Dziurska, and what we're finding in our research with interviewing parents of children who stutter is that they believe that they are the most supportive group in that child's life and helping to support them with their stuttering, second to speech language pathologist and then stuttering support group.

So if we look at all of those people that are supportive of or can support a child who stutters, parents believe that themselves, SLPs and support groups are the three most supportive group, and interestingly enough the classmates of the children who stutter are the least supportive. Parents believe that just listening to their child is going to be the most helpful support, but laughing of course is going to be the least helpful. We developed a series of community-centered stuttering assessments, and there's various versions for parents, teachers, and peers and SLPs, and what these look at are the overall life impact of stuttering on a child's life and what's cool about these these assessments is that all of the items are the same with each version so you can actually compare and contrast if there's any discrepancies in what the parents believe or the teachers believe or the child's themselves believes about his or her stuttering.

- [Craig] So I'm going to talk a little bit about teachers and kind of how we involve them in the process 'cause I think they're a very important group as well especially as we're working with school-age and adolescent kids 'cause they spend a lot of their time at school around teachers. So it's really important the teachers also understand general

information about stuttering and are aware of some supportive classroom accommodations as well, particularly related to oral reading. So we have to help them understand that the child should not be penalized for moments of stuttering when assessing reading fluency. Fluency of speech is not the same as fluency of decoding. So to gain a true assessment of reading fluency you might have to videotape reading segments, time any moments of stuttering, and then remove them from the overall time of the reading. The National Stuttering Association, which I have linked up here, and ASHA both have good resources on this if you're looking to provide information for why accommodation need to be made from an oral reading standpoint. It's always fascinating to me that people want children to read as fast as they possibly can, but that's really difficult for somebody who stutters.

Oral presentations may be another area where their needs to be some accommodation. So we should, those should not be timed and the grade should not be based on fluency. Maybe the child would need to give the presentation to a smaller audience and then move up the hierarchy to a larger audience in front of the class. So you just have to know individually where the child is at there and making that accommodation as well.

Class participation is another one. You really want to encourage teachers to avoid the down the aisle style of reading and participation as that may increase anxiety. Kids start to look like okay I'm the eight paragraph, if I have to read out loud, is this, here's the words that I know I have difficulty on, and then it just becomes really problematic before it even starts. You really want to work with child as their speech pathologist to have them help you to pick situations where they feel more comfortable volunteering and participating. Maybe that might just be raising their hand one time a week in class at first, and then maybe once a day, and then moving it up to twice a day. So just getting to the point where they can actually feel comfortable speaking in front of other people in classes is a big thing. As Mary talked about, we have the Community

Centered Stuttering Assessment. We also have a version of that for teachers that we have them fill out to can I get a sense of how the stuttering is impacting the child in the class. There are a couple questions and there that I just want to hit really quickly 'cause I think I can tie them both together really fast. You want to try to group kids together based on who would be a good match for them in terms of their their goals knowing that the best possible outcome for somebody who stutters might not be at first at least to be in a group with three other people who have no other stuttering issues. They may need some time to talk individually, and some combination of school-based service vs. outpatient services might be needed if you do that, if you need to do that, and then decreasing the awkwardness that comes from waiting for the child to get their words out everybody has to learn patience, and so that's a really good opportunity for you as the speech pathologist to bring in peers to the sessions to help explain the importance of that concept as well.

- [Mary] So this is a perfect leeway to talking about peers in the therapy process, and I know we have just a couple of minutes left. So I'll summarize the highlights here. I've been involved in some interesting research recently with some colleagues around the world and have a article in press right now with a colleague in Bosnia and Herzegovina, Layla Junuzovic Zunick, and what we're finding in terms of peer attitudes towards stuttering is it's not a cultural issue. It's one that we believe has to do with development, theory of mind and increasing sensitivities and awareness of human differences. It's a really fascinating thing is we're actually seeing children's attitudes towards peers who stutter increase between the period of preschool and fifth grade, meaning preschool children have the worst measured stuttering attitudes among all of those cohorts. That can be due to a couple of different things that are beyond the scope of this discussion today, but would I, the really important takeaway is that children across all of those cohorts have negative attitudes towards peers who stutter. These are typically fluent children. They don't know about stuttering. They don't know how to react to children who stutter. So we're talking both about the knowledge piece

as well as the skills piece, and that's negative stuttering attitude started at a really young age. It might be observed differently in different classes at different ages. So it might be social distancing at a young age, and it might be more teasing and bullying at an older age, or might be teasing and bullying very early on. So that's something to be in tune to regardless of whatever age you work with, keeping in mind the peer reactions towards children who stutter. So we really need to be teaching peers about the disorder as well as those hopeful listener supports which are eye contact, patience and not finishing words or sentences.

So that's derived out of some of the work that we've done with children who stutter and asking them formally what's helpful and what's not, and inviting that child who stutters to give input on how peer education is conducted. There have been a couple of programs in the past that have been shown to be effective. MTV True Life, as well as the TAB program by Marylyn Langevin, and the information is there for you. Maggie Westfal, Craig and I were, developed a documentary featuring children who stutter as well as some teens and young adults, and it's about 20-25 minutes long, and it's freely available on YouTube, but it is a great resource. We haven't used it as part of a formal stuttering study at this point, but it is a great way to jump-start some of the harder conversations that you might face with your child who stutters. I developed the InterACT program which is specifically designed for preschool children who stutter so they can develop those knowledge and skills at a very young age in dealing with their peers who stutter as well as recognizing that being different in any way is okay, it's not bad to be different, it's just different. So with that, we will leave it open to any remaining questions, and I know we're slightly over our time here.

- [Amy] Thank you so much, Mary and Craig. This was a great presentation. We have maybe three or four minutes. We can hang around and see if any questions come in. In the meantime, I just wanted to say I've been in the field a really really long time . I don't want to say how long, but it's been so nice to see this evolution of the assessment and

treatment of stuttering from just focusing on you know number of stuttered words to the deeper symptoms, the affective-type symptoms that come along with stuttering and see the involvement of the entire community in the treatment because you know I think of these kids, they spend so much time around their peers and their teachers. It's so important to involve everyone With that said, I'm going to, I do see one question that came in here. I'm going to read it for you. It says how might you suggest going about therapy with students who have severe language disorders and have a hard enough time even writing a sentence or a student with severe autism and you struggle to even get them to pay attention to the task at hand for a minute?

- [Craig] Sorry, I was un-muting my mic there. I'll jump in on that one. So a couple different questions there. Well, I'll start with the first one. How might you suggest going about therapy with students who have severe language disorders who have a hard time even creating a sentence? So couple aspects there. First you want to really make sure that what you're seeing is stuttering and not a language formulation difficulty resulting in a number of disfluencies, and so disfluencies that are more word-finding, language formulation related tend to be a revisions, phrase repetitions, interjections. So that peace is really important 'cause you may actually need to work on the language components way more than you do the speech fluency components if it's an underlying language disorder. The other thing there as it also relates to autism is you just have to really make sure that you're using as many concrete examples as you possibly can. You may do things like use social stories, you may incorporate language work into what you're doing from a fluency standpoint as well. You know it's important to remember that if you're working on pseudo stuttering for example or working on strategies you can incorporate a language therapy into that and just work on doing those types of things from a fluency standpoint that we talked about or stuttering modification while you're working on language therapy. So you know all of that is certainly possible, and it just depends on the individual case that you're dealing with there.

- [Mary] Alexandra, I just put the quote down in the notes section for you to access. It's a good one.

- [Craig] Couple other things I see there. What do you typically recommend for high school students, fluency shaping strategies or fluency modification? I think high school's different, students are really no different than school-aged students in terms of the combination of the two. Really what you want to lay down at first is the groundwork of working on education first and increasing their knowledge and awareness of stuttering. Then you want to get to the point of working on stuttering modification and being able to modify or change the stutter to reduce the tension. Then you want to get to the point of last of probably fluency shaping and structure it in that way. That way you can use all the time as well to work on any avoidance, overall communication, and hit those before you get to just working on my fluency strategies. Is there a time when self-therapy, self-instruction can be something that is introduced or incorporated, for example with a young adult? Yeah, I would say absolutely. That should be a big piece of therapy always is to work on improving self-confidence and their ability to advocate for themselves. Even at a young age, you really want to work on having a child be able to advocate for themselves and teach others about stuttering, so absolutely. And then let me just hit Danielle's real quickly before we--

- [Amy] All right, very good, well, I. Oh, sure.

- Go ahead.

- Go ahead, Craig.

- Okay, once the strategies

- Oh, go ahead. And techniques are established with the child, do you cue them to have them use them within the conversational tasks or allow them to reference and use at their will? Yes, I would really work on making sure that they have enough practice to build the strategy or skill, and then once they have it down where I know they can use it pretty well, then I want them to be able to use it when they want on their own.

- [Amy] Very good. I'm a little slow on the draw, sorry . My mute button was on as well. So thanks so much again, Mary and Craig. thanks so much to our participants who spent two hours of their day with us. We were happy to have you here. I wanted to point out that we have Brooke Layman Edwards and Hope Gerlock presenting to us part three on Thursday, May 21st, and then part four of this four-part series will be on Tuesday, May 26th. You'll see both of those live webinars in our library, and as usual if you're not able to make those live webinars they will be available in self-study formats after the fact. So I will go ahead and wrap it up here. I hope everybody out there continues to stay safe and sane during these crazy times. Thanks, Craig and Mary. I hope everybody has a wonderful day.