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Overview and Assessment of Stuttering: What Every SLP Should Know

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- [Amy] All right, once again, welcome to the first in our four part series on stuttering, assessment and treatment. Today's event is gonna cover an overview and assessment of stuttering, what every SLP should know, and once again we are welcoming our guest editor for this series, Craig Coleman as our presenter today. Craig Coleman is the department chairperson of Communication Sciences and Disorders at Edinboro University, and he is a board certified specialist in fluency disorders, and is also an ASHA Fellow. He currently serves as vice president for planning for 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, and we always enjoy it when Craig is here with us 'cause we know it's gonna be a good course. So welcome, Craig. I'm gonna turn over the floor to you.

- [Craig] Well, thank you, Amy, and thank you, everybody, for attending today. I think when we plan this month-long course on stuttering we certainly last year did not know we would be doing so in a global pandemic. So I thank everybody for taking the time to jump on with us today and learn a little bit about stuttering and kind of deepen all of our knowledge about how to assess and treat stuttering for children and adults. Couple quick announcements before I go ahead and continue. I think as Amy had said, you can use the Q&A chat along the way to ask questions that you wanna ask during the presentation today, and I'll try to address those questions as they come up and not wait until the very end. That way as we recover the content, we can go over the questions as well. So feel free to use the Q&A, and I'll try to moderate that as best as I can and incorporate the questions into the presentation. The first hour today we're gonna talk a lot about just a general overview of stuttering and kind of go over some risk factors and things like that, and then we're gonna get into assessment for the second hour today as that kind of kicks off our whole month of stuttering content for

speech pathology.com here in this important webinar series. Just a couple disclosures I need to go over with you as far as presenter disclosures from a financial standpoint. I'm being paid an honorarium for this presentation. I may mention the Stuttering Academy once or twice. I'm a co-owner of that, and so get some funds for that as well, and I did co-author the school agent teen versions of the OASES so I get royalties from stuttering therapy resources for that. Non-financial disclosures, I am as Amy said on the ASHA Board of Directors right now. Currently serving as the ASHA Vice President for Planning. Content disclosure this learning event does not focus exclusively on any specific product or service. So we don't have to spend too much time on that and the sponsor disclosure, this course is being presented of course by speechpathology.com. So the learning outcomes today's are gonna transcend both the initial hour talking about background about stuttering and giving the overview, but they're also gonna get into the assessment aspect in the second part as well.

So we're gonna after this course participants hopefully will be able to list risk factors associated with chronic stuttering for young children. Describe current research trends in the epidemiology of stuttering. Describe foundational principles of stuttering assessment and treatment. Explain the components of the ICF model, and we're gonna talk a lot about that when we get to assessment. Give two or three examples of a set specific assessment goals related to the ICF model, and then develop treatment goals for people who stutter based on that assessment data.

So what we're gonna try to do today is kind of get you the background information first that you're gonna need for the second part of today, and then for the rest of this series as well as we move forward throughout the month of May, and incidentally since we are in the month of May, happy Better Hearing & Speech Month to everyone as well. So the important thing to start with here is a definition of what stuttering is, and this can seem pretty basic, okay, but it turns out it's not that simplistic. Still today we have somewhat of a hard time being able to accurately define what stuttering is, and that

goes from a public and professional standpoint. And the problem usually lies in the comprehensive aspect of the definition, and I'll kind of give you a little bit of background about this. Back in 2004, or 2014, sorry, my colleague Mary Weidner and I did a 2-day stuttering training event for continuing education for speech language pathologist as part of our summer camp that we did for children who stutter. So we had about 24, 25 speech language pathologist who came in and participated in the two-day workshop, and what we did with them is we gave them a pre-assessment where we asked them some basic knowledge level questions about stuttering, and then we did the two-day workshop with them, and ask them those questions again. Coming into the assessment very few people could accurately define what stuttering was using a comprehensive definition.

One out of 24 is what we found. So even though this seems like a very basic place to start, it's a really important foundational piece to start with because if we don't have an accurate definition of what stuttering is, it's very hard to plan for assessment and treatment, okay? The other thing that happens is that we know from a public perception standpoint, and not just the general public, but also the peers of people who stutter, this is an important piece for them as well because when we're talking about peers we're talking about attitudes.

So we're gonna talk about that as we go through the whole webinar series and the importance of reactions to stuttering, but what we wanna be able to look at here is we wanna be able to look at being able to have a comprehensive definition for the person who stutters as well as the public because that's gonna shape how people react to it, okay, and what we see is even though this term tends to emerge later in the school-age years, awareness of stuttering emerges as early as preschool, and so we're gonna talk about the importance of that, okay? Now one question that I'll kind of hit on here very quickly is you may not use the term stuttering with young kids. We'll come back to that throughout this whole series. But really young children sometimes don't have a really

good grasp of what the term stuttering means because it's an abstract concept. So for really young kids we might use more concrete terms like bumpy speech or things like that that are more descriptive. They can give them a better idea of what we're talking about. So for us as professionals the definition of stuttering is really important in matters because if we have a one-dimensional definition of what stuttering is, that's gonna tend to result in a very one-dimensional type of assessment and treatment, all right, and you'll see in a second what I mean by that. For people who stutter, defining the various aspects of stuttering can really help them lead to an improved understanding and validation of their experiences as a person who stutters.

For example, again, if I'm looking at this as a person who stutters from a very one-dimensional standpoint and say stuttering is just merely a disruption in the flow of speech to me then internally if I was a person who stutters I would think the only way for me to be successful is to change the amount of disfluencies that I have in my speech, but we know that's not all of what stuttering is, and that's that's not all of what you can have to be successful, okay?

So as we talked about for the public defining stuttering is also the first step in improving attitudes toward stuttering, and that's an important piece of a lot of what we're gonna talk about in treatment is that our goal for people who stutter is not just to improve their own attitudes, that's certainly a primary goal, but in addition to that our goal is to help them to educate people around them to help them improve their reactions to stuttering as well because that's gonna make it a lot easier for the person who stutters to be able to communicate in their environment, okay? So why is stuttering difficult to define? Well a large part of that has to do with how it's been viewed throughout history, and my way back in, a long period of time from about 320 BCE through the 1800s stuttering was really looked at as a structural problem with the tongue. So the way to treat it was looked at changing structure, okay, so at this point you would have some really kind of interesting interventions that were carried out

where people would do things like remove the tongue of people who stuttered. Leeches were very big at this time in terms of treatment 'cause they were for everything of removing bad blood. Early in the 1900s, stuttering moved into being thought of as more of a psychological issue or a neurosis, okay, so this was really the time of Sigmund Freud when you looked at like stuttering as being some kind of repressed need. People did it out of just some psychological need to fill a void, and then we kind of move away from that for a while to about the mid-1900s, the cerebral dominance or handedness theory came to prominence for people looked at it as if you were left-handed, you would have a much higher risk of stuttering, and if people thought that if you were right-hemisphere dominant for language that you would have a much higher risk of stuttering.

Studies have really proven that theory is not really accurate because about 90% of people who are left-handed are also left-hemisphere dominant for language. So there's a very small percentage of the population that actually is right-hemisphere dominant for language, and there doesn't seem to be a very significant difference in the amount of stuttering that happens across different people based on their handedness. So around the mid-1900s, you also see a theory emerge which is that stuttering arose from a conditioned or learned response, and that was really perpetuated into the 1980s and even well into the 1990s, and a lot of that stems from Wendell Johnson's theory of the diagenetic theory of stuttering.

So Johnson's diagenetic theory of stuttering was basically that if you take a child who's exhibiting normal speech disfluencies and you label them as stuttering, then you will essentially turn the child into a person who stutters, and that's how stuttering arises for most people. Now probably the most famous study, or I guess now infamous study that was done to look at this is what's known as the monster study. With the monster study Johnson and his graduate student, Mary Tudor, went into an orphanage in Iowa in the late 1930s or 1940s, and what they did is they conducted a study of the

orphans where they took children who had normal speech disfluencies and they labeled them as stuttering and said things like that's really bad, I don't really like the way your talking, you speech sounds really bumpy, you have to learn to do better, this way of talking is not acceptable, and what happened was that they did the study, and then the data really never came out. What happened was the person who was Mary Tudor who is Wendell Johnson's doctoral student, in the early 1990s, did a interview with a newspaper where she talked about this study. So the reporter tried to track some of the people down. They went back, and the people were still kind of labeling themselves as yes I stutter, but when a group of researchers really sat down and looked at it with them, they found that they didn't stutter. They had normal disfluencies like everybody else does.

So this study essentially was never published, and it was never published because it really refuted the diagnosogenic theory which that which kept being put forward for a number of different years, and it's important to know that this is really an important piece of the history of stuttering because up until the mid-to-late 1990s and even early 2000s, if people were going through grad programs, they were taught that diagnosogenic theory and essentially then taught not to talk about stuttering with young children because that would only make it worse, okay, and that's really important because you need that framework of what people have in their training background to understand where we are and kind of the differences in beliefs in some ways.

Now the other aspect of that particular study and the way of looking at it was you know if your goal is to show that parents and their reactions are causing children to stutter which was Johnson's theory, the worst possible place you could probably go to prove that theory would be an orphanage where there are no parents. So it was not a really good sound piece of study from a lot of different angles and perspectives, but it really shaped the field unfortunately. So once people started to look at that and say

okay that didn't work, also around the same time a lot of genetic studies and a lot of neuroimaging studies were coming out as well, okay, and so as those genetic and neuroimaging studies were coming out, people also started to see hey, wait a minute, there's other reasons here why people are starting to stutter, and they're not based on people's reactions. They're based on genetics, and they're based on the way the brain functions. So we'll revisit that in a few slides here, but that's just important piece of background. So thinking about what stuttering is when most people are asked about what the definition of stuttering is they define it as a disruption in the flow of speech. That's certainly part of what stuttering is, but that's really just the disfluency component of what stuttering is.

Disfluency is a disruption in the flow of speech. We all have disfluencies at times, okay, 'cause we all have disruptions in the flow of speech, but we don't all stutter. So what's the difference then in stuttering vs normal disfluency? Well there's several, and they need to be incorporated into the definition. So stuttering is that disrupt the flow of speech, but it's characterized by repetitions of sounds, like this, or syllables, lie lie lie lie like this, or words like like like like this, or phrases like this like this like this, can also be prolongations where you stretch out a sound and hold on to it like that, or blocks like that where you have a complete stoppage, and then the air burst out.

Disfluencies can also include interjections, words like um, a, like, or revisions where you stop a sentence and start over. I have to go, I mean I need to go to the store, okay? So we all do some of those things as people who are fluent speakers. So there's got to be more to the definition and help separate us, and for people who stutter, these disfluencies also may be accompanied by physical tension, negative reactions, thoughts, emotions, feelings, secondary behaviors where you might see eye blinking, hand tapping, head nodding, and avoidance of sounds or words or speaking situations. Now when you incorporate all of this into the definition, okay, this is not what disfluency is. So this is very different because those of us who have normal

disfluencies in our speech don't have all of these other things, and that's an important piece to keep in mind. So we have to think about then if we are working with people who stutter, okay, we have to be looking at assessing along the entire dimension of the definition, and we have to be looking at treatment along the entire definition as well, or else we're not being comprehensive. We're just looking at disfluency, okay, if we just look at the number of times that people may have disruptions in their speech, okay? So that's an important distinction between stuttering and what we can see in disfluency. So what we know about normal disfluency is that, as I said before, every speaker is disfluent. Normal speakers have about 3 to 5% of their words that are disfluent in some way, but those tend to be revisions, they tend to be more interjection based or easy phrase repetitions.

Stuttering is a little bit different because that's characterized more by sound, syllable or word repetitions, prolongations and blocks. You can see more increase physical effort, the negative reactions, the avoidance, the impact on communication. Now here's where this an example of where this can be really important. I'm giving this presentation to you today. It's gonna last two hours.

During that time if you were sitting there doing a tally, you're probably gonna find a number of different times where I'm disfluent, okay? Pretty much all of them are gonna fall under the normal disfluency category there where I have revisions, interjections, phrase repetitions. They're gonna be very easy without a lot of physical tension or struggle, probably about 3 to 5% of the time, but what they are also not gonna be is they're not gonna cause me as the speaker to have negative reactions, to think about negative experiences that I've had before as a speaker, okay? It might be related to my speech or my stuttering, and that's key because when I start to get stuck if I'm a person who stutters, it's not just about that moment. It's about all of the moments that have been negative for me as a person who stutters up to that point. So what we're seeing on the surface then is not just I'm stuck right now, but a lot of times it can be

I'm stuck right now. So that reminds me of the time that I had to try to get my name out in class when I was 10, and I couldn't do it, and everybody laughed at me. That reminds me of the time that I was driving through at McDonald's to order a hamburger, and I couldn't do it, and I had to order something else, okay? People who have normal disfluencies don't have those reactions, and that makes it a very different experience for us as compared to somebody who stutters. Now we talked a little bit about these different types of stuttering, average disfluency. So I won't spend too much time on them, but a repetition is when you repeat a sound or word over and over again. Prolongation is when you make a sound longer than it should be, and then a block is where you get completely stuck and no sound comes out. So pretty self-explanatory. I think we all know what those are from a very basic level standpoint.

We talked about how disfluency involves mainly phrase repetitions, interjections and revisions. Now there are a couple of caveats I wanna give here though. When you see a person who uses a lot of interjections that could be because they are using those to try to help them get started so that they don't get stuck. It can also be that they don't wanna stop because they're afraid that they're gonna get stuck when they restart. So they just use those interjections to keep going, okay, that's really important to keep in mind.

The other thing that you could see interjections or even revisions from is a child who has some language deficits in terms of language formulation or word-finding. So if you do see a lot of interjections or a lot of revisions, you wanna make sure you're weeding out some other things from a language standpoint and from an avoidant standpoint to make sure that there's nothing else that's going on. That those interjections and revisions are potentially covering up, right? All right, so when we look about different classifications of fluency disorders, I just wanted to touch on these as well 'cause they're kind of important to distinguish. Much of what we're gonna talk about today and even throughout this entire webinar series with a couple exceptions is gonna be

childhood onset stuttering. Childhood onset stuttering is stuttering that begins in childhood during otherwise normal development, and most of our stuttering cases fall here, the vast majority do. So if you have a 40 year old for example who started to stutter when he was three, if you are evaluating him now at 40, that is still childhood onset stuttering because it started in childhood, okay? So that's the vast majority majority of cases that we're gonna see. Neurogenic stuttering is a little bit different. With neurogenic stuttering you see stuttering that results from some specific damage to the nervous system. So that can be secondary to things like a stroke or traumatic brain injury, drug overdose, anything that can cause neurological damage, you can have neurogenic stuttering.

Psychogenic stuttering is another entity all to itself. This one is stuttering that results from an underlying psychological disorder, and it's important to recognize here that this is not the same as people who have some negative reactions to stuttering because they stutter. This is people who stutter because of a psychological disorder. So with both neurogenic and psychogenic you have to have people who have no history of stuttering and then they had the psychogenic or neurological event, okay, and then stuttering results from that.

Cluttering is a fluency disorder in which speech may be perceived as too fast and too irregular where children run words together. So it kind of sounds like almost smashed. It sounds very disorganized. So something like I went to the store to get some milk might sound like I went to the store to get some milk. It's very hard for intelligibility standpoint to figure out what that means if you don't have context. Okay, before I go to the next slide we do have a question. If a child has a diagnosed childhood onset stuttering, but it increases dramatically after a head injury, is it childhood-onset neurogenic or childhood-onset with neurogenic component? That's a really good question, and personally I would diagnose that as childhood onset stuttering with an additional neurogenic component because what you see there is you see

childhood-onset component there, but you also may see some additional characteristics that the stuttering may take on specifically because of the neurogenic piece. So I think if you wanna be as accurate as you can in the descriptions there, and I think covering both is a good way to do that. One other question is cluttering also related to disorganization of language, would you diagnosis this as both cluttering and expressive language disorder. Well, okay. So cluttering in itself by definition does have language components and learning components. So what you see a lot of times with people who have cluttering is that you see some underlying language component or some learning component. There's a much higher prevalence of learning disabilities in cluttering. There's also a much higher prevalence of attention deficit in cluttering.

So those are just some things to kind of look out for as well. If we have time at the end of today I'll give you some examples of some really interesting examples of a couple of neurogenic and psychogenic cases I've seen over the years that kind of can highlight the differences between these, but in the interest of time I'm gonna save that for right now and hit it later if we have some time at the end. So basic facts also very important for us to know about stuttering is this helps us to be able to not only have some background in what stuttering is but we have to be able to teach people these as well to get them the basic understanding of it. We know that misconceptions about stuttering still run pretty rampant.

They exist in all research calls cultures, religions, language, occupations, generations, SES levels, The good news is this seems to be improving, okay, where people seem to be getting better at having not as many negative misperceptions of stuttering. There's still a long way to go, but there does seem to be some steady improvement that's being made, okay? We also know that negative public attitudes towards stuttering and people who stutter can have serious social, emotional, relational, and vocational consequences for people who stutter. We also know that for people who stutter misconceptions about stuttering held by themselves or by others can also lead to

self-stigma where they feel worse about it themselves, okay. So this is an important piece to think about in terms of these reactions because we have to be able to hit these in some way in therapy, and I don't mean we need to go out and like you have assemblies for everybody, but I do mean we have to recognize the fact that even when we're treating the client in front of us they are still gonna have to go out into a world that might not always be very accepting of their disorder, and so part of the treatment has to be to help them to be able to adjust and function in a society that's maybe not always that accepting of what they have, of that characteristic, and we also have to be able to help them become self-advocates where they can go out and teach people about it themselves, right?

We'll keep coming back to that. So helping people who stutter and the public understand basic facts about stuttering can really help mitigate negative attitudes and social penalties, and advocacy depends a lot on a solid understanding about the disorder if you are working with a client who stutters who is seven or eight years old or older I firmly believe that the foundational piece for everybody has to be knowledge, okay?

If the client doesn't have knowledge about what stuttering is or how to go about helping or what can make it more pronounced or important it is to work on attitudes and reactions, then what you're doing is putting a band-aid on everything. And think about for a second any other chronic condition we have. Think about asthma, think about allergies, think about diabetes. There's no way you would ever try to treat any of those conditions without educating the patient and the family about them because that education is such an important piece of what's gonna help them to be able to maintain a healthy lifestyle, number one, to be able to educate other people that they need to educate and to be able to advocate for themselves, and so those are just really important foundational pieces to start with. Now we know that about 1% of the adult population stutters, that's the prevalence. Prevalence means how widespread

something is in the current population. So what that means with us now is that about 3 million people in the United States stutter, and about 60 million worldwide. So that's a lot of people when you think about it. We also know that about 5% of people stuttered at one point in their life, and that's what the incidence is. So what that tells you is that with the right treatment stuttering can get better for a lot of people. We also know that stuttering exists in all cultures and races so it's not something that seems to discriminate based on a certain culture or race. That 1% number seems to hold pretty consistent across the lines. We also know that the peak onset of stuttering typically happens between about two and four years of age. The average age of onset is about 33 months or about 2 years, 9 months.

Now interestingly enough too for adults the ratio of males to females that stutter is about three or four to one, okay? At the time of onset, that ratio is much closer to 2:1. So what that also tells us is that for young children there's a lot more females that are stuttering than when they're adults which tells you that being a male if you're showing signs of stuttering at an early age is a much bigger risk factor and we'll kind of hit that as we go through.

Okay, I see we do you have a question. So I'm gonna try to hit that one now. I've heard of cases where parents would make their kids pretend to stutter to get some sort of benefit. For example, free preschool. What are some things to look for to identify fake stuttering and what is the best way to work with people. So okay. I'm not really sure that. I'm sure that happens to some degree. I guess I've never heard of a beginning preschool for free if you stutter, but I'm sure there's a lot of motivators for people. I'm not really sure you can teach a kid to fake it very well. There's something called malingering which is different even in psychogenic stuttering. Psychogenic stuttering is you stutter because you have a psychological disorder. Malingering is you fake it because there's some benefit, okay? Now certainly sometimes you might see that after people are in car accidents, things like that, if there's some benefit for them to have

something additionally that they feel like they can kind of put in the mix of things that the accident caused. Malingering is tough because you know if you know how to evaluate stuttering like you know people don't generally stutter when they sing unless they have neurogenic or psychogenic, choral reading usually will make somebody fluent. I don't think a kid would be able to discern all of that and know the difference. So if you're doing the tasks that usually would make somebody more fluent and they still stutter, that might be a red flag for you. Again I'm not sure a kid can pull that off consistently. I guess anything is possible but I think you'll be very very difficult for a kid to fake that and do it well at the preschool level. Another question, so because peak onset, it being two to four years of age, is that a good reason not to do direct intervention at that age range?

Great question, and the answer to that is emphatically no. If you have a child who is stuttering at the age of two, they could be reacting negatively to it already. I've had two year olds I've worked with who will explicitly tell you this is bothering me and I'm really frustrated by it. If that's happening it doesn't matter what the age is. You wanna address it, and probably do so a little bit more directly if their awareness and their frustration is there.

I just kind of wanna emphasize again and we'll talk about this as we go through the assessment but especially later in the webinar series when we get into treatment, when you're looking at young kids you know you can do a little bit of therapy at the very beginning where you do some indirect therapy where you don't call a lot of attention to it but if the child is reacting negatively to it and is already aware of it you wanna go direct pretty quick because not talking about it tends to only add more mystery to it and make it more of this greater thing that people don't wanna talk about or don't really have a firm understand about. You may do it in a different way like talking about bumpy speech, sometimes saying something direct to the child like you know that was a little bit bumpy but it's okay, having bumpy speech is okay. I still wanna hear what

you have to say. Sometimes that's all you have to do to send that message, but I would never avoid working on stuttering or treating it just based on age. Couple other questions to the theory that they might outgrow before age five is incorrect. Okay, so I'm gonna hold that question because I think we're gonna tackle that when we talk about risk factors. There's no theory that they. There are theories that children will outgrow it, but I'm gonna help you see the difference between low-risk and high-risk, and so we don't wanna apply this theory that people are gonna outgrow it before a certain age across-the-board. What we wanna do is we wanna be able to evaluate specific risk factors to make that help make that decision. Knowing that there's not a 100% right answer for everybody, but having an idea about the risk factors is gonna help us make that distinction a lot clearer.

So is stuttering considered a language disorder. No, stuttering is not considered a language disorder. Stuttering is more of a motor speech coordination disorder. For most people there are no language components to stuttering. If a child has an intellectual disorder and does not understand that they stutter how can you address it? So okay, that's probably a little bit outside of the scope. That's probably a little bit outside of the scope right now for this particular session.

We'll try to come back and hit that a little bit later, but that's gonna be more in the treatment talk a little bit later on. Okay. All right, we know that stuttering is a disorder of motor coordination like I just said and can impact the various systems of speech, okay, for example, respiration, phonation, articulation. We know that in general stuttering is not linked to intelligence. People who stutter are not less intelligent than people who don't stutter. It's pretty even. We also know that stuttering usually decreases or does not occur in the following situations: Singing, whispering, choral reading. Choral reading is when you read along with somebody. Now the important thing to keep in mind here when we're talking about these conditions is this is childhood onset stuttering. For neurogenic or psychogenic stuttering you may not see these same

fluency facilitating effects in play. They still may stutter during these times where you wouldn't expect a person who is childhood stuttering to stutter. So that's a really important diagnostic criteria, right? Okay, couple other questions I see. If stuttering is coordination problem, is it related to apraxia of speech? Apraxia of speech is a different speech disorder. They are not the same. You could have the person who stutters and has childhood apraxia of speech, but apraxia of speech is about speech sound production. It's not about fluency. Is stuttering at the end of words common? That's an interesting question. Sometimes you can have stuttering at the end of words in a word final position.

I went to the store or, or. Sometimes people do that if they're blocked on the next word of the utterance that they're saying, and they use that as a way to try to bridge to the next word. This is not a very common thing. You can also see this more at times with people who have ASD on the autism spectrum, Tourette's, obsessive compulsive disorder. So if you see a lot of that you wanna try to do some other investigating of why that might be happening.

So gonna the risk factors now which is a really important piece here, when we think about risk factors they inform the prognosis for recovery or persistence of stuttering, okay? So why does it matter? Understanding risk factors helps the clients, parents in the SLP, to get their expectations in line with reality, okay? This is an important piece because sitting down and going over risk factors with people really helps them to understand why their child might be stuttering, all right, and what the outlook might be. All right. Risk factors here we look at high risk factors and then we look at lower risk factors. All of these you see on this slide are higher risk factors. Having a family history of stuttering, okay, being a male, having stable or increasing number of disfluencies over a period of time, stuttering for greater than six months, so greater than six months since onset. If you have physical tension or secondary behaviors including for young kids especially the really subtle ones like the pitch and loudness increases. ♪ La-la-la ♪

Like that. Okay, sometimes kids won't be able to tell you exactly how they feel about stuttering at a very young age, but seeing their pitch loudness changes could indicate at times that they are showing some negative reaction to it if they can express that, and then obviously outward frustration is an issue, and I just wanted to distinguish here, there is a difference between frustration and awareness, okay, I can be aware of something without being frustrated by it. For example, I am aware of the fact that I am, I can't physically work out to the same level at age 43 as I did when I was 18, okay? Do I get frustrated by that? Not really, but I'm aware of it, okay? So there is a difference between frustration and awareness. Having prolongations and blocks is definitely a higher risk factor rather than just sounds, rather than just a whole word or phrase repetitions.

The other really interesting one here is later onset stuttering. So if a child doesn't start stuttering until like age five that places them at much higher risks than if they started at like age two, and the reason for that probably is related to the fact there seems to be a critical window for stuttering that if a child is still doing it by about the age of seven the chances of it going away completely go down pretty significantly, okay? So that's an important thing to keep in mind is that the later onset the shorter the window is.

Children who have other speech and language concerns or disorders tend to be at much higher risk as well, and parental concern is an important one because who do children get their reactions from generally? They get them from their parents, okay? So when we think about that it's really important to understand if the parent is really upset or frustrated by this eventually the child is probably gonna be as well. All right, so that's a really important thing to keep in mind. Okay, couple questions. Would you be able to provide us with some research articles that states stuttering at ends of words is more common in, okay. So what I would really suggest here is when you look at the, if you wanna look word specific at the end of words, look at the work of Vivian Sisskin. S-I-S-S-K-I-N, and the work of Kathy Scaler Scott. those two have done a lot of work

on stuttering in different populations like people with ASD, OCD, and so they've done a lot of work on the word final disfluencies. Those would be good references for you to look at and check out any work by those two. Is there a higher prevalence of stuttering in among people with cerebral palsy? So there's not been a lot of work done in that area for stuttering. You would expect I think there would be a higher amount of disfluencies just because of the coordination issues, but keep in mind again, there is a difference between disfluencies and stuttering, okay? So they have to have those other pieces to be stuttering as well. There has been a lot of work done in Down syndrome, and there is a much higher prevalence of stuttering in Down syndrome so I would expect there would be a little bit in cerebral palsy as well. If a child has typical whole word or phrase repetitions parents have requested to begin therapy so that it doesn't progress, what would you recommend to say to parents?

Okay, so again, I would look at all these other risk factors here, not just those that particular one with the types of stuttering, but if looking at all of these risk factors and saying is there enough here to cause me concern or is there not, and if there is enough to cause me concern, then I would probably evaluate them. If there isn't enough to cause me concern, and I would just maybe educate the parents and do some things with them while closely monitoring to make sure that the stuttering doesn't increase or move to the next level.

Okay, if a child has typical whole word or phrase repetitions, oh, that's what we just did, sorry about that. All right. We will move on to the next slide. Now when we think about causes of stuttering, this is another question that you are likely to get from parents because they wanna know why their child stutters, and it's a fair question to ask. What's the current research tells us, and I have in the end of the presentation here you'll see a fair number of references to reading materials about genetics and neuroimaging, the current research tells us that stuttering is likely really a multifactorial process with strong links to genetics and neurophysiology. So there's a definite shift in

recognizing stuttering as not something that psychological but something that is physiological, and I think that's a really important piece because how you go about looking at things that are psychological can be different than how you look at things that are physiological, and it changes kind of what you expect in therapy as well. All right, do you recommend initiating therapy immediately or waiting for a period with a child that presents with stuttering behaviors following a significant family event or life change? So again, this takes me back to the risk factors. I'm not as interested in only the stressful situations or the life event. I wanna know comprehensively from an assessment standpoint, and this is what we'll get you in the second part of today, being able to identify what those risk factors, if it's a really young kid that they have that we just talked about, they have a fair amount of them, then yes, I probably wanna do some intervention.

For older kids, if this is an older kid we're talking about, then I wanna be able to do some of the things we're gonna talk a little bit about in assessment later to figure that out, but I think it's really important to know that social media has really moved us into a really interesting era because you see a lot of these types of questions posted on Facebook or other social media groups where people will say things like I have a four year old who stutters, what should I do?

And the honest answer to that question, even though a hundred people will respond on Facebook telling you what you should do is if all you know about a kid is they're four and they stutter, nobody has any right idea about what you should do. You need a lot more information than that to be able to make any type of accurate assessment or provide any type of accurate information. So it always really worries me when, and I'm not saying this relates to your question, it kind of just reminds me of that, it really worries me at times when people put out very basic questions and you get a lot of very detailed responses because you can't make that type of recommendation based solely on I have this or I have that. That's why we do assessments, and so if you come and

say, hey, I have a kid I evaluated. They have all of these different characteristics, here's what I know, that's a little bit different. Somebody can provide a little bit of feedback on that, but when people throw questions out like I have, the kid's four, and he stutters, what should I do? Responding to that in any type of detail way is really kind of walking an ethical line in my opinion. Okay, so this chart shows you a little bit about the multifactorial nature of stuttering, and I use this to show parents and SLPs, students, how stuttering occurs.

So as you look at this, you see kind of a glob in the middle where everything kind of overlaps, okay, and that's purposeful. So you see genetics, you see neurophysiology, which basically get to the underlying causes of stuttering. So when I think about underlying causes here, okay, I'm gonna use the pointer here to show you this. The neurophysiology and the genetics really get to the underlying causes. These other things are not related to cause. They can be related to the path of the disorder and also the reactions, okay?

So for example, environment does not cause somebody to stutter, but if you put a child who stutters in a negative environment that's not really conducive to being stuttering friendly that's gonna probably make it more pronounced and make the reactions more intense, okay? If I have a kid who has a really competitive type-A personality who is a perfectionist who likes to do things well, is that gonna cause them to stutter? No, because when you look at the, there's a lot of type-A competitive perfectionistic people who don't stutter, all right? Now if you have a person who has that personality and they already stutter, it might be a little bit higher of a risk that you might get some more intense reactions, okay? Demands capacities is another one. This is not a cause of stuttering. Demands capacities are related to how likely a person is to stutter in a given situation if they already stutter. So for example, if you take a person who stutters and they're tired, there's a lot of language demand of increasing complexity, they're sick, they're trying to do things fast, they're more likely to stutter in those situations. Now if

you take people who don't stutter and they're tired or they're sick or they're stressed, they're not gonna start to stutter as a result of that. Alright, so demands capacities has to do with what your capacity for speaking fluently given the demand of the situation. So that's much more about how likely are you to stutter right now. Okay, so question, let's say it's a young child that has characteristics of stuttering and risk factors, however, the child is not aware of the stuttering, would you still treat? If they have characteristics of stuttering and risk factors, yes, I would, I would start off more indirect, and again, that's gonna be a central focus of the session that I think we will do next, one of the sessions next week, but, yes, I would still treat, I would start off indirect, not really calling attention to it, building that foundational knowledge, and if after like six sessions or so the kid was still showing similar characteristics, then I would move more direct.

Okay, now we think about genetics I'm not gonna go too much into the detail of this here. Again, if you really looking at it getting more into genetics, I would really look closely at the work of Dennis Drayna, he's done amazing work on this. Drayna is not a speech language pathologist. He is a geneticist who was specifically interested in stuttering.

So a lot of his work has been on stuttering and identifying specific genes, mutations in specific genes that appear to be related to stuttering. Now it's important to recognize that the work that they've done has still only resulted in kind of identifying the genetics for about 20% of persistent stuttering, but that's pretty significant especially in genetics and looking at it that way, and some of these genes also have been implicated in stuttering in mice which is kind of fascinating that the same genetic underlines might be in play here. Now some important things that we know from genetics is the twin studies, adoption studies provide further evidence of stuttering has strong genetic links. We also know the concordance of stuttering is much higher in identical twins than it isn't fraternal twins, and when something is much higher in identical twins than

fraternal twins, it usually indicates a strong genetic component. We also know that adopted children with an adoptive parent who stutters are not at a higher risk for stuttering, but adopted children with a biological parent who stutters are more likely to stutter than those with a fluent biological parent. So that again, just shows you the genetics at play here over environment, okay? A couple questions here. I'd be curious to hear your thoughts about, I've noticed that when I'm tired or nervous, I tend to stutter, but I don't normally stutter. So again, that can be demands capacities from a disfluency standpoint, and you wanna go back to that basic definition of are you having disruptions in the flow of speech and thus becoming more disfluent because that can happen.

You're probably not crossing over to being in stuttering where you're having physical tension, secondary behaviors, avoidance, negative reactions. Those things probably aren't happening during those times. If they would be happening to somebody during those times, then they've been might be a person who stutters that just doesn't stutter on a day-to-day basis when everything is good, when the demand is not there, and then when the demand is there it comes out a little bit more. We see people like that, and we see people in treatment who day to day, you really wouldn't notice it that much unless the demand was very high.

That's just enough for those people. Their stuttering is very very very mild, and it's only that increased demand that's able kind of bump it up a little bit to where you would even notice it. Neurophysiology, when we look at neurophysiology, we look at, Soo-Eun Chang at the University of Michigan is always my go-to expert here. She has done an incredible amount of work in the last five to 10 years on the neurophysiology of stuttering especially in children, and getting to look at what the brain imaging scans look like of people who stutter vs. people who don't stutter. So some of the things basically we have seen there is that fluent speech depends on well-established connections among brain regions that support auditory processing, motor planning

and motor execution. So those areas are connected through a white matter track called the superior longitudinal fasciculus. People who stutter have been shown to have disruptions to that white matter tract and the functional differences with other deep brain structures like the basal ganglia, the thalamus and the cerebellum. Now other studies have also kind of shown that when you look at people who stutter vs. people who don't stutter, people who stutter tend to have more of their brains highlighted activated during speech than people who don't, and so I always tend to draw a little picture of that when I'm working with kids and parents to show them that on a very basic level because it helps him to just be able to understand that their level that this is not just something that you can, it's not a bad habit, right? It's not something that you can just say I choose not to do like biting your nails. If something is happening at the neurological level, you don't just decide not to do it. It's a neurological process, right?

So it kind of helps people to understand that like, okay, this is something that's a little bit deeper than maybe just like I need to tell my child don't do that 'cause that's not gonna work. We also know that in young children stuttering may increase when the demand for speech like we talked about before chronically exceed the child's capacity to produce fluent speech. That goes back to demands capacities. So fluency occurs when the capacity exceeds the demand. We also know that other factors like we talked about such as temperament, environment and predisposition can play a role as well. Now when we think about moving this into the next stage of what we're gonna be talking about from an assessment standpoint, it's gonna be really important for us to talk about the ICF. I wanna circle back though to a couple things that I was gonna hit before 'cause I think we will have a few minutes to work them as this whole all plays out now. To distinguish between neurogenic stuttering, psychogenic stuttering and childhood onset stuttering. Okay, so I've probably been evaluating and treating children who stutter and adults who stutter, it's been 20 years now. I've probably evaluated thousands at this point, people who stutter. I can only remember a handful of people

that I've evaluated during that time who have neurogenic or psychogenic stuttering. They're not very common. Now neurogenic as I said can result from really interesting circumstances when you have brain injury of some type or stroke, and I'll just I'll tell you I remember seeing a 14-15 year old one time who had neurogenic stuttering simply because she got a concussion playing soccer. So it also doesn't have to be like a major neurological event. Some things that you can see on, you would look at and say, wow, that's not really something that I would expect to cause this, can cause it. Now for a lot of those people their symptoms will tend to get better as the neurology, as the neurological processes improve.

So that's just something to keep in mind, okay? So you might need to work on some functional strategies with them and work on some fluency shaping and things like that to hold them over in the meantime, but usually has their neurological system improves, they'll make some improvements as well. Psychogenic is fascinating, okay, not gonna lie to you. It's real really really interesting, and I'll tell you a couple of really interesting case studies here. I had a group of students that I was teaching stuttering grad class to as an adjunct instructor many years ago, and at the time there was a client being seen there that was evaluated for stuttering, and the department chairman asked me to come in and take a look at the client one day because they couldn't really figure out what was going on, and so I came in and I did a little evaluation.

I thought this is gonna be great. All the students who think I know everything about stuttering will be able to watch and see how an assessment is done, in about 30 minutes into the evaluation, I thought what did I just do here because I have no idea what's going on with this person, and I have 22 students who think I know a lot about stuttering watching me. So I was really second-guessing myself at that point. So I just bought a lot of time asking basic questions that I really kind of already knew the answer to, and at one point during the assessment I just asked the person, I said remind me again of like what the specific date was that you started to stutter, and the

client said I don't know. I can't remember the date. Let's just say February 24th. So okay, I'm sitting there thinking why did I ask that question because that's not gonna really help me at all, and then as I was talking to the client about something else it dawned on me that February 24th was the day after "The King's Speech" won the Academy Award for Best Picture in that same year 'cause this was the only about six weeks later. So I asked the client if they had ever watch the movie "The King's Speech," and they were very excited about their response to that, and so it kind of dawned on me that there may have been some personality issues here that the client was taking on of that character, and so we had her evaluated, and it end up that she had multiple personality disorder, and now it's important to recognize that that is not malingering.

That's not something that somebody is doing on purpose. That's a psychological disorder, and the person actually firmly believes that they are in that persona, okay? So really really interesting fascinating kind of things, and honestly the handful of other cases that I have seen have very similar plot twists in that way to some degree where there's something really kind of under the surface happening that you don't really see right away, and then you're able to move on and say, okay, this is really what's happening here, and there's some other component here. If you were seeing somebody who has psychogenic stuttering it's really important that they are also being seen by a psychologist to address the psychological disorder.

If we are evaluating people with childhood onset stuttering and counseling them from the standpoint of working on reactions, feelings, thoughts, emotions related to their stuttering that is our scope of practice and our job to be counseling in, okay? That is very different than counseling from a psychological disorder standpoint. That's not our scope of practice. That's not what we should be doing, but we know the most about stuttering, and you know one of the arguments I hear some times is it if people have negative reactions to stuttering, people have emotions that you know cause them to

avoid, we should just send them to a psychologist, and I guess my best response for that always is if you have a lot of worry, a lot of negative reaction, a lot of stress related to having a heart problem, do you wanna go see a psychologist for that or do you wanna go see a cardiologist? Personally, I'm gonna the cardiologist because, yes, I have stress, and, yes, I have emotions, and, yes, I have feelings, but they are specifically related to a condition, a specific condition, okay? So that's just an important distinction between the two, all right? Okay, question we have here. Have you ever had an adult onset client where you are unable to differentiate neurogenic and psychogenic? Yeah, another really good question, and the reality is that in some cases there may be components of both. I actually specifically have had a couple clients like that. I had one that I saw about two years ago, and she had a lot of neurological things going on, a suspected stroke that really could never be proven.

There was a lot of other kind of psychological things that we're going on and so we suspected there was some combination of the two, and it actually turned out for her, she had an underlying thyroid problem that once they treated the thyroid with medication, her stuttering improved a lot. So you know there's sometimes there's things that you don't even expect as well.

I evaluated it a woman who have been in a car accident several years ago, and she had very specific PTSD related to the accident to the point where she would just stutter basically when she talked about the car accident, but she also had a fairly moderate concussion from the car accident which also probably left her with a little bit of a piece of neurogenic stuttering as well. So sometimes it can be hard to separate those and differentiate those out. You just really have to tackle that if that's the case on an individualistic basis. Is a team approach ever implemented for disfluency? Okay, so one really good opportunity, couple really good opportunities revolve around this question. One is in the use of the term disfluency. So it used to be that the terms disfluency, you would use D-Y-S-fluency to classify disfluencies that were stuttering

related, D-I-S-fluency to classify non-stuttering related disfluencies. Now you use D-I-S for everything, and you described that is either a stuttering-like disfluency like a block, a prolongation, a sound word repetition, or you describe it as a non-stuttering disfluency which is an interjection, a revision or phrase repetition, and, yes, you can have. So is a team approach ever implemented for disfluency? No, because disfluency is normal. Is it ever implemented for stuttering? Yes, and that just depends on the needs of the individual client. If it's a school, are you gonna wanna have the teachers on board with what you're doing? Absolutely. If you have a person who has neurogenic or psychogenic you're gonna have to have other people involved. Even if I'm seeing a kid in outpatient it should be a team approach because I'm still gonna be, wanna be in touch with the kid's school.

I'm still gonna be, wanna be in touch with the kid's community in some way if that they participate in whether that's an athletic coach or a band director to talk about how that might be implemented or affecting the child. We're gonna talk a lot about that as we get into treatment over the next few weeks during this session, but, yeah, absolutely, you wanna have. I refer to this is a community-based treatment that we're gonna talk about over the next couple weeks, and I think you're gonna see different people hit on that as well as myself when I come back again at different points but community-based therapy involves basically working with people in the community who are also involved in the child's care. Is stuttering ever regarded as neurological or only neurogenic?

Also have you have often seen stuttering as can common in children with CAS, and if so how often? Yeah, children, I mean stuttering can be common in children who have childhood apraxia of speech. The other thing to keep in mind here though too for kids who have apraxia of speech or any other significant speech sound disorder is that they're doing a lot of drill work, and as their motor system gets challenged and their coordination system gets challenged because we're talking about a motor speech issue here, you could see a lot of disfluencies that can kind of creep in a different

points that aren't necessarily crossing the line to stuttering So you wanna be able to monitor that along the way, and if you need to you might need to back off at different points with the drill work and go to more types of therapy that are more elicitation-based, more modeling-based in setting up opportunities for the child to respond, then doing a lot of drill work if you start to see that emerging. You certainly can see stuttering that is just neurogenic, and usually that happens in people who have some type of brain injury and the stuttering results from that. Stuttering is not just neurogenic though from childhood onset standpoint because to be neurogenic you have to have some diagnosed neurological event with no history of stuttering before it. Okay, I wanna move on now to talk a little bit about the ICF model.

The ICF model stands for the International Classification of Functioning disabilities and this is a model developed by the World Health Organization to really help guide clinical decisions based on a number of factors, and these factors are outside just the surface level characteristics. ASHA has a great website link to this which I have listed in the slide there that explains this whole process very very well. It's something that I have my grad students go through all the time and really learn about and understand to be able to kind of navigate and understand what thorough assessment and treatment looks like.

So I'm gonna go through the ICF model and then talk a little bit about to you how we would apply it with people who stutter from an assessment standpoint today, okay? Now there are four components to the ICF model, all right? They relate to body function and structure, activity and participation, environmental factors and personal factors, and we're gonna go through each of those and talk about their impact, all right? So body function and structure really refers to describing the anatomy and physiology or psychology of the disorder. So this relates to the genetics, the neurophysiology, the surface-level behavior that we see. So for example, when we think about stuttering, right, we look at, we understand that it's genetic and

neurophysiological in terms of the underlying causes that might exist, but there's also the surface level behavior which is the number of disfluencies that we see, that's the blocks, the prolongations, the repetitions. There's also the secondary behaviors in the physical tension. Historically, we're very good about assessing those things because we can see them on the surface, all right? So being able to see those body function and structure things is what we're used to, and if I can, I'ma try to also go outside of stuttering here to give you an example of how this could play out in other areas so you can closely tie it into that with what we see in stuttering.

Let's say you have an injured knee and you tear a ligament in your knee. That relates to body function and structure because you have some physical aspect or physical injury to your knee, all right? Now activity and participation is a little bit different 'cause this really describes the person's functional status including their communication, their interactions with others. So this gets to avoidance, thought process, and what this looks like in stuttering is choosing not to talk to people because they stutter. Choosing to change words because they stutter. Choosing to order a hamburger when they really wanted a cheeseburger just because of the thought process of thinking I'm not gonna be able to say cheeseburger fluently.

So I'm gonna switch to something that's easier for me. Now on the surface, this might seem like it has to be pretty dramatic, okay, for somebody to have that kind of impact, but it's not. I treated a client for a long time who actually would tell people her name was something different than it was because she couldn't, she didn't wanna say her name. She had a lot of negative experiences with stuttering on her name, and so she would just pick a name that was easier, okay? Now I've seen also people who have studied for years who have been with a partner or significant other for three, four, five years, and they don't even know they stutter because they get so good at hiding it, and on the surface if we go back to the body function and structure, if I'm evaluating those people on the surface, they look great because they're not stuttering very much. If I'm

evaluating the activity and participation and the impact of stuttering, they don't look great because they are usually getting exhausted from avoiding, from hiding, from changing their thought process, from having to have a back-up plan and another back-up plan to everything they say so that people don't hear them stutter. Again, I'm giving you one example, but I can think of about 10 in my head over the years that have come up that are very significant where people go to very extreme lengths to have people not know that they stutter, and a lot of that can be traced back to for most people going through programs when they were younger that were very heavily centered only on making them be more fluent, okay?

Because if you have that, what ends up happening is if I go to therapy, and I'm gonna really impressionable here 'cause I'm a young child, let's say I'm eight, nine, 10, 11 years old, and every weekend therapy, my speech therapist who I really like, plays games with me, is a lot of fun, I respect them and what they do, every week they're trying to get me to stutter less, okay? They never actually say to me stuttering is bad. Don't do it. They never say you know you're doing only really well when you stutter, but all of the goals that I have in therapy are about stuttering less.

There's a really good chance that I'm gonna walk away from that situation thinking in order for me to be successful as a person who stutters I have to try as best as I can to stutter as little as I can or not at all whenever I talk. Now you have a problem because what starts to happen is an unrealistic expectation is created, okay. So a person goes through therapy and they come out of that and they think I got to do whatever I can not to get stuck. So on the surface now, they look great, but underneath the surface, they're crumbling because they're making decisions about activity and participation that are not in their best interest. They're in the best interest of them appearing to be better in body function and structure, all right? What we have to do is make sure that we are creating an environment from an assessment standpoint that is capturing where these people are in their activity and participation related to stuttering, and most of all,

we'll talk about this later on in the series, how do we create treatment environments that is conducive to them leaving understanding that yes I'm a person who stutters, I'm still gonna stutter at times, and that's okay. The bigger indicators of success for me are not what you happen to see on the surface, but do I participate, does this affect my activity level, does this affect my overall quality of life, health and well-being, does this affect my ability to interact with others, okay? So we're gonna keep coming back to that. Okay, question for speech therapy in general, there's a huge focus on positive reinforcing improvement which I can see that can cause a big attachment to improved speech and potential. So I think I understand this question, but if I don't answer it the right way, you can maybe clarify for me. When we think about. Okay, issue with avoiding certain situations.

Yeah, so there has to be a focus on not avoiding certain situations, of helping people to get out in therapy to be able to face situations and participate in situations that they were afraid to be in before, okay, but here's the thing and why this is important for us to have this discussion today. How do you know what situations those are unless you assess it, right? If I leave the assessment and the only data that I have is so-and-so stutters 12% of the time, they have significant physical tension, and these are the secondary behaviors they do, and that's all I walk away with, that's all I'm gonna treat, all right, 'cause I don't know anything else. Now if I have, if I leave the assessment with all of these other things were gonna talk about that is a much different scenario of how we can approach treatment, okay?

Okay, another question. I love the shift in fluency shaping for children who continue to stutter as they get older, but how do you get parents on board with this approach? Have had lots of pushback from parents who only want goals focused fluency. Liz, you've just made my day because every time I give a presentation, I really hope somebody asks this question because this is, for school-age kids this is the essential question most of the time, right, and the mistake that we make as clinicians a lot of the

time is we have a kid in front of us who we say we know the right thing to do is a comprehensive approach to treatment, to work on all of these other things and not just fluency, and then the parents come and they say excuse me. I want my kid to be more fluent, and a lot of us at that point say okay, let's work on fluency. That's not the right thing to do. Let me put this in a another general context for you, right? If I'm coaching a sport and I coach my sons a lot in baseball, so let's say I'm coaching a sport and I'm working on a specific play that I want my kids to run with base runners on base that will help the team score more runs, and a parent comes in and says oh, yeah, but I want my kid to have more stolen bases, right, from the individual statistics standpoint, the decision for me there is not to go along with the parents wishes, but to tell them why that's not a good idea, okay?

So a lot of times what happens if you have a kid who is not at a very good place, and so they think about like okay I'm avoiding. I'm doing this, I'm doing that. I'm reacting negatively. Parents say we wanna just work on fluency. Clinician goes along with fluency, and then the kids starts to think okay, the only way for me to be good at this again is to be more fluent, right? If I have a parent who comes in and the kid is okay in their reactions which this happen sometimes, the kid is fine working on comprehensive treatment.

They wanna work on the reactions. They see the impact of it. They see that all these other things are just as important if not more important than how much they get stuck. So they have a lot of buy-in to do these things, and then the parent comes in and says nope, just wanna work on fluency. The question there is who needs treatment. The treatment needs to be directed at the parents. So I would not change the targets that I have for the child. I would really start to incorporate the parents into the therapy process anyway I can to help educate them about why it's really really important not to just work on fluency and giving all the examples that I'm giving today of if we wanna have a kid that in 15 years from now is doing everything they can not to stutter, but

they won't take a certain job that they might want, they won't talk to certain people whose names start with a certain letter, they won't ask the girl out on a date, they won't go interview for the job. That's not where we wanna be. So you know I think kind of long-term looking at it helps parents put that in perspective sometimes. Okay, a couple of questions. This is a general problem when parents expect us to cure a speech behavior and then the kids will be okay. This works so many bad ways for the kid. Yeah, it does. It you know, it if creates expectations. So I'm gonna give you a really good clinical example of this before we move on. Let me hit the next question first. If a student was seeing speech therapy for articulation and showed signs of stuttering is able to use compensatory strategies for smooth speech, would you now structure therapy? Sorry, I'm not seeing the bottom of that question. It gets a little too long. Would you not structure therapy?

I think your meaning, if I was target both. There we go, perfect. Would you now structure therapy for stuttering or encourage the use of those compensatory strategies, indirect collaborative measure? So this one really needs to be answered on an individual basis because if I had a kid who was doing articulation therapy, showed some signs of stuttering, what I would wanna look at there is I would wanna look at what are the signs of stuttering that they're showing or they just disfluency related or are they again going back to some of these other, tension, struggle, negative reactions, things, I wanna work on all the things that the kid has difficulty with, and that might mean changing the format of therapy so that I'm not just working on articulation, but I'm working on those fluency strategies pretty consistently and sending the message that it's okay to have bumpy speech sometimes as well, and playing around with it a little bit, just teaching them that it is important I think. Okay? So back to the case that I was gonna talk about a little bit. I had a kid that I was evaluating with about nine, 10 years old, and I always liken the diagnostic to explain to the kid and the parent that the goal of therapy is not gonna be a complete elimination of the stuttering at that age. The goal is gonna be to manage the stuttering effectively so that we work on reducing the

disfluencies, reducing the physical attention and secondary behaviors, improving attitudes, improving reactions, working on overall communication, making it so that there's not avoidance of words or situations and encompassing all of those different things. Most people get on board with that really well when you frame it in that way, okay? This particular parent as I was doing that said to me can I see you out in the waiting room for a second, and I said sure. So I went out there, and she said you know I really wish you would be more positive with him, and I said, okay, can you tell me specifically about what you would like me to do because I feel like I am being pretty positive, and she said I would like you to walk back in there and tell him he could just get over this, and I said, well, okay, there's two reasons I can't do that, like ethically I can't walk in there's as a speech pathologist and tell him he's never gonna start again 'cause that's not ethical, and number two, I don't believe that. Like I think you can manage it effectively, but I don't think he's gonna get to a point where it just goes away completely, and I spent a lot of time in the waiting room kind of explaining to her why that was the case.

So we walked back into the room, and we sit down again, in the first thing I said to the kid is I said you know I just said a lot to you in terms of what therapy is gonna look like and what the goals are gonna be and stuttering is gonna be long-term, what do you think about all that, and he looked at me and looked at the mom and he said I feel good about it, and the mom was like what do you mean you feel good about it, why, and he said, well, to this point everybody has been telling me that this will just go away. So I've been wondering what I've been doing wrong to make it not go away, and it's been really hard for me because everybody keep saying, well, if you do this, it'll go away, if you do that, it'll go away, and it's not going away. So for that kid and most kids at that age having that discussion can be really hard, but it also takes a big weight off their shoulders in thinking if this is the expectation that everybody has for me, then there's something that I'm not doing right because I'm still stuttering, okay? So that's a really important discussion to have. It's never easy to sit down with a parent and a

child and talk about the long-term nature of stuttering with these kids who are a little bit older. It's a very difficult thing to do that, but it's so important to get everybody on the same page. Okay, another question, can you give us examples of how to word the goal so that they don't look like a pragmatic language goal in an IEPs setting? Okay, so couple things here. We're gonna talk about goals a little bit at the end of this today, but when we talk about treatment, I think next week, I'm gonna be doing that talk with Mary Weidner, and we are actually gonna have specific written goals as examples in there that you can use directly in IEPs related to stuttering and working on all these things that we're gonna start to talk about?

Again, that's outside of this scope a little bit as we talked about ICF and assessment, but when we start getting into treatment later on in this series were gonna hit that a lot. Now when we talked about environmental factors, these are factors that essentially that are not within a person's control. They get to family, work setting, laws, cultural beliefs, community, okay? So all of these different factors can influence how people react to it, right? The family you have around you if you're a child, the work setting if you're an adult, what the disability laws allow you to do or allow you to have accommodations for, how stuttering is viewed in your culture, okay, this is always a really important one for me when I work with people who stutter because you know let's be honest. I try to be as much of an open person to multi cultural beliefs and values as I possibly can be.

My job on the ASHA board of directors is to oversee the multicultural issues board in, and I think I do that quite well in terms of being open to different beliefs and different ideas. Sometimes though I do get challenged at times when I run into a situation where people have different cultural beliefs about stuttering that where they say things like we do not wanna bring them in for treatment if this is not gonna completely cure it because then it will make them look weak, okay? That goes against everything that I know and believe about stuttering, but I also have to respect other people's cultural

beliefs and values and know that they're a little bit different from my own, but I also have to step outside of my clinician hat there because my clinician head is telling me something very different than that, and my parents hat is a person who has cultural beliefs as a parent is also telling me something very different about that. So as a clinician you have to balance that and still respect other people's views of looking at things knowing that they might be different than your own. You also have to understand the environment that people come into your world in might be very different than their own. People, sometimes they're not in an environment that's very accepting of their differences. There's some kids and families who you can work on that with. As I always like to say sometimes, 95% of the kids that I see the families are amazing to work with.

There's a small percentage though where you really believe and know as the clinician that the best time to do therapy for that particular person is not as a child, it's when they're older, it's when they're not in their family environment all the time and they are just free to be themselves that they might do better in therapy, right, 'cause mean I'll give you a case example of this.

I remember having a kid that I saw who was a really great kid, the family was great to work with, but just had a very different way of looking at things, and I spent a lot of time probably like a year every session coming out and saying this is what we're gonna work on today, this is how the kid is doing in therapy, this is how we can be supportive of helping him at home, and talking about the importance of you know really fostering an attitude that was accepting in the home environment, and the kid was making some really good progress in the therapy sessions, but you can always tell outside of that, he would come into the therapy room with me and he would be a different kid then when he was out in the waiting room, okay, and so one day the parents, the mom brought him in, and I said how's everything going this week, and she said oh great 'cause we started a new system, and I thought oh boy. I said okay what was the new system, and

she said well whenever he stutters I say strike one. If he stutters again, I say strike two, and I looked at the kid and I said let me guess you never get to strike three because you just stop talking, and he said yep, and now this has been after about a year of talking about this every week, and so you know I have had a discussion with the parent that day and I said look we're gonna have to decide if we can move past this way of thinking or we can't, and if we can't, I'm not sure we can keep doing this because it's not gonna be effective, and she couldn't, so again for that kid waiting until later was probably the better choice and the better outcome because no matter what I said in 45 minutes a week was being undercut by what was happening the rest of the week at home where this was a bad thing. Right? How do you approach treatment with a child who exhibits clear stuttering behaviors, but let me try to widen this again. Okay, how do you approach childhood stuttering behaviors that do not appear to be experiencing any negative reaction to the stuttering, they don't appear to avoid speaking, they self report that they like the way they talk, they report the only people who appear to be bothered by their stuttering are their parents?

Okay, so yes, I would counsel the parents. I would, that's a really really good question. So again, I can give you a case example. So I was evaluating a kid who was about 9 years old, and the parents brought him in, and kid said look, I know I stutter. I'm fine with it, I talk to people. Stuttering is part of who I am. If they don't accept it, that's their problem, and everything that we talked about and he filled out for me and the assessment backed that up, okay? So I brought the parents in at the end, and I said you know I don't really think now's a good a good time to do therapy because I think he's okay right now. There might become a point in time where he does wanna do therapy and he needs it, but this isn't the time I don't think, and so you know the parents kind of said okay. Well we understand that, and they looked at the kid, and they said we just want you to know that we are fine with your stuttering and we accept it and we like who you are, and he looked at them and he said then why you keep bringing me to these appointments, and that was sort of a really like hit home message

for them of like, yes, you can say that, but your actions also speak, and as a parent I get it. You wanna do what's in the best interest of your child, but you also have to listen to your child and understand that sometimes that they can tell you the right things and be accurate. How do you ethically handle those cases where parents withhold therapy due to cultural beliefs? You know again, that's an ethical fine line to walk in terms of what you do there. If you feel like a child is being put in physical or mental distress, you have to report it as a mandatory reporter. It's just you know if it, if a parent is saying that like you know I don't wanna do form of therapy right now, but you don't really feel like there's immediate danger to not doing formal therapy right now, and it's just a difference of opinion, you also have to respect the difference of opinion.

So you know I think you have to handle those situations very individually and come up with the best solution, and usually that's having a really direct conversation with a parent about the concerns in some cases, you know of saying okay I respect that, but here's what you need to look for and if it gets to this point in terms of negative reaction affecting him, you need to make sure that you're bringing him in because that's gonna start to get to physical and mental well-being, and then I think having an open discussion about that is in an honest way is an important thing to do.

Now there's also personal factors that go into the ICF model, and the personal factors have to do with things like race, gender, age, educational level, temperament, these are really individual characteristics that might influence reactions in the way somebody responds to treatment based on all these other characteristics that really don't have anything to do with their disorder per say or their characteristics, but more to do with their characteristics as a person. All right? So these are really important as well. Now tying this all back in together, we see this from the stuttering perspective, I gave the example before of a person who had a knee injury in terms of body and function and structure, that's gonna affect their ability to participate in things, like they might not be able to jog or run or walk or participate in physical exercise or specific events that they

wanna do. What's their environment? Do they have help getting around when they need to? Do they have people who are gonna take them to their appointments? Do they have people who are gonna treat them effectively? One of the interesting things now about this whole pandemic is that access to providers is actually a little bit easier for people because everybody has moved to a teletherapy models where you can get into people's houses rather than having to rely on people having transportation to get them to a therapy setting. So you know you have that aspect of it as well, and it'll be interesting to see how that moves forward. Now we look at assessment specifically, okay, we have two different purposes here. For young children at the preschool stage is to determine whether or not the child needs treatment.

We're trying to look at the risk factors and evaluate them and say does this child need treatment or are they likely to recover without it, and is this stuttering or is this disfluency? Those are our main questions over all that we're trying to answer for a preschool child. For school-age children and adults, the questions are a little bit different. So here we're trying to determine whether or not the child is ready for therapy, and most importantly why they're coming in now. If a kid's 14 or 15, they've probably had therapy before.

If a person is 30, why are they coming in now? Usually there's a specific reason and it has to do with a certain event that happened or something that they wanna do or participate in that they're not able to do, all right? Now there's gonna be some things from an assessment standpoint that we can use and need for all ages. One of them is disfluency count sheet. This is very simple. We use a count sheet that has like four blocks of 100 words each where you can just do very simple tallies on whether or not a child is using a fluent word or a word that has a disfluency in it, and you can code that based on like a repetition or prolongation or a block. Stuttering Severity Instrument-4 is often used to perform a standardized measure of stuttering, but the important thing to remember here about the SSI is that it really only looks at those surface-level

behaviors. How much during is happening, is there physical tension, secondary behaviors, what do those look like? You also know you might need to have recorded speech samples from home or another setting particularly for young children because you may not get an hour and a half window in a diagnostic, you may not get a sample that is representative of what the parents are seeing at home, and so a lot of times I will ask parents during an evaluation if I have access to them, does this represent what the child normally does at home or does it seem to be different in some way, okay?

So you may also need the OASES, which again disclosure that I'm an author on so I get some royalties for, the OASES is really a good way to assess the reactions to stuttering. So those are things that go beyond the surface level. The reactions, the thought process, the knowledge level, the self-confidence and self-image, the difficult speaking situations that the person identifies in, all really important here, and this can help you to be able to assess that. So the OASES assesses the life impact of stuttering relating to a person's overall knowledge of stuttering, reactions to stuttering functional communication and quality of life. There's an OASES-A for adults who are 18 years and older.

There's an OASES-T for teenagers between 13 and 17, and an OASES-S between 7 and 12, and again that's published through stuttering therapy resources. For older children, we also have something that we use specifically called the Community Center Stuttering Assessment, or the CCSA, and that's really geared toward assessing the impact of stuttering on a child's life as reported by the people around them. So there's a few different versions of the CCSA. One of them is for the child to fill out, just some basic questions, the parent fills out portion, the teachers fill out portions, and then the SLPs fill out portions. So this is meant to take what the child is giving and comparing those answers with what the SLP, the teachers and the parents are also seeing to be able to validate that that's actually the experience that's happening and you're not just relying on the child perceptions, and you also wanna get a sense of what the

perceptions of other people around are because that might give you a good idea of what you need to work on in therapy, right? If the parent and the child are on very different wavelengths of how they view things, that's probably gonna need to be addressed somewhere therapy, no matter who's right, there's a difference in perception there, and so did that that becomes really important because again it's less important about who's right, but making sure that everybody is on the same page. Same with the teachers. They play a really valuable role in giving us input, and if they're seeing something way different in the school setting than we're seeing or the parents are seeing, we wanna know why. Maybe there's a really good reason for it. Maybe the child is not comfortable talking very much in school, and so they limit their amount of interactions, and they don't stutter very much, okay?

So that could be more avoidance than about just speaking very well, and those we have available on our Stuttering Academy page that we use for download for the CCSA. Now when you look at conducting an assessment you wanna have some different components here. You have the parent interview that can be get conducted either face-to-face via phone or written responses. As children get older, you also wanna interview the child, okay?

Preschool children, that's not an important component and can get a little sticky, but as kids start to get eight, nine, 10 years old and above, you wanna be able to sit down with them and kind of get their perspectives on stuttering and kind of where they see things at too in terms of how they identify, what they identify as important and what they feel like they wanna work on in therapy, okay? So all really important here. When we think about the observable stuttering we wanna look at assessing the observable stuttering in different speaking tasks, okay? So not just sitting down and saying, okay, go ahead talk, I'll do this, but you may do something where you look at stuttering in reading, conversational speech, picture description, story retell, with their parents, with you, maybe getting a recorded sample with their friends or their siblings because

things can look very different in those situations, but we also wanna assess the attitudes and emotions that we talked a little bit about as well. Okay, a couple questions. I'm treating a three, five year old for phonological. Oh, I lost that one somehow. How do you suggest administering the OASES during COVID? So actually the OASES, if you work with stuttering therapy resources, they will actually work with you on setting up a profile where you can have an electronic version of the OASES. Okay, back to that question that popped back up.

I'm treating a three, five year old for phonological process delay, but in the last 2 weeks they're stuttering and exhibiting characteristics per home video, can you recommend a screening tool that I could use during this pandemic while schools are only using distance learning. I guess my question there would be would you be able to see him live during teletherapy, to just be able to sit down on the computer with them, and kind of even just a few of deserve the parents interacting with him, so that would be where I would start then if you can do that. Okay, if you're limited on in person time how much of this can be pre-recorded from home for an assessment, and again I think you can pre-record as much as possible. I actually think that will help because it gives you an idea of what the child is doing in a naturalistic setting. So I think you can definitely use that.

Again, if you have the ability to sit in live on a session, I don't think there's anything that can substitute for that, but I think you can use some pre-recorded aspects as well. Under what conditions would you recommend taking? Okay, good question. Syllable versus words samples. I'm gonna hit on this in a minute. So let's save that question until we come back to it. So these are just some examples, and I won't read all of them specifically, but I'm gonna just go back in touch on a couple. For the parent interview, you wanna know if there's a family history of stuttering. You wanna look at are there any other medical concerns, health issues, other speech and language concerns are all really important. You also wanna get down to is this affecting their ability to participate

in social and educational activities, okay? Those are really important questions. We also wanna know how that stuttering has changed over time how long they've been stuttering, what types of stuttering they're exhibiting, and I never would ask that question by just saying are they doing blocks, prolongations or repetitions. I actually probably wanna give examples of each of those. Do they get stuck like this where they stretch things out? Do they get stuck like that where they block 'cause most people won't know what a prolongation or repetition or a block is. So giving examples is really important. We also wanna know how much the child's stuttering, and I always ask that question because I wanna basically know how do the parents perceive it.

Like do the parents perceive it as the child's stuttering like 75% of the time knowing that nobody's better 75% of the time? So are they perceiving it to be pretty accurate, or are they perceiving it to be a bit of a larger issue than it may be? Does the child have any tension or secondary behaviors when they stutter? Do they seem concerned about it? How other people reacting?

All of these very important questions to ask the parents. Now for the child questions we wanna look at their perspective as well as they get older to determine what their readiness for treatment is. So are there any differences in the parent and child beliefs and reports? What's the child's previous experience in treatment been? What's their emotional response or their reactions to the disfluencies they have? What's their ability to use strategies like, and we talked a little bit about these different situations that you can observe. Conversation, story retell, reading, picture description, interactions with parents, siblings, peers. So we wanna try to obtain as much of a sample as we can. Three to 400 words, two to 400 words if it's a younger kid is usually a good representation, and then you just divide the total number of stutter words by the total number of words. Now I always use words and not syllables for a specific reason, couple specific reasons. You will see syllables used a lot in research. Clinically I think words is better and I'll tell you why. Number one, you can do words in real time,

meaning that I can sit down and I can analyze the words that a person is saying and do calculations as they're talking, okay? Syllables, very hard to do in real time. You have to go back and analyze that later. The first question that pops into my head is does doing that and investing that amount of time make any difference at all until what you do in therapy, and 99.99% of the time the answer is no. If it doesn't make a difference in what you're doing in therapy, then why invest that time in that? I would much rather you invest your time if you have concerns in other speech and language areas of evaluating those and weeding those out to come up with a more comprehensive treatment plan. The other thing is people don't talk in syllables.

People talk in words. When you use syllable counts it tends to lower the percentage of stuttering and compress the percentages together where you can have somebody who's stuttering like 15% of the time in syllables, and that's pretty severe because everybody's like zero to 15%. Words, you can see people stuttering up to 50% of the time. So I just think words is a lot better to do in that situation because of that. A question is there a percentage of disfluent speech vs. fluent speech that you use in determining factor to enroll in therapy?

I mean it's a small piece, okay? So if a person is like more than five or 6% disfluent, that starts to raise a little bit of a flag for me, but that's a very small piece of the puzzle to be quite honest with you because you can have a person who's stutter during like 5% of the time or you can have blocking 5% of the time where it's really negative reactions and secondary behaviors and tension, you can have a person who's stuttering 15% of the time, and it's all very easy like this, okay? So that's a very small piece of the puzzle. How do you address a secondary physical components, eye blinking, foot-stamping? Great question. Again, I think probably out of the scope of this particular session. We will be addressing that hard when we get into the treatment aspect of it. Do you still do the SSI with syllables or do you use words? So I do words. In every other edition of the SSI, there was a conversion table that basically showed

that if you take the number of words and multiply it by .7 so if you get your percentage of words stuttered and multiply by .7 that's the percentage in syllables. So that's how I handle the conversion for converting over two syllables when I'm looking at the SSI, but again I'm gonna say that SSI only telling me about the surface level behavior so I'm okay with that not being 100% perfect because I don't only care about the surface level behavior, and I also know of all those surface-level behaviors the number of disfluencies is the least predictive for me of anything because I can have a kid who is stuttering 5% of the time, okay, has a lot of negative reactions, and I say they're stuttering is very mild because they're stuttering 5% of the time. That kid then goes through therapy, starts to feel better about their speaking, more confident in being able to approach situations, doesn't avoid any more, now stutters 15% of the time. Therapy looks like an epic failure.

It's not an epic failure because the kid is actually talking now where they weren't before, okay? So that pre-post measure is telling me nothing for that particular child. So the number of disfluencies, do I wanna know it? Yes. Do I care a whole lot about it? Not really. Okay, when thinking about assessing the observable characteristic, just a few other things here.

You're gonna look for the types of stuttering as well. You're gonna look for the average length of stuttering events, for blocks, prolongations, repetitions, average number of iterations or how many times they repeat for repetitions, how long the longest block or prolongation lasted for the prolongations and the blocks. You also wanna talk about secondary behaviors, and what you observe there. You wanna talk about with the physical tension that you were able to observe as well. So those are all very important pieces to talk about, and this just gives you an idea here this next slide of a write-up of what you can use to do to talk about what the observable characteristics look like in a report. In the interest of time I'm not gonna read this to you 'cause it's in the handout, it's in the slide, but I think this is a really good summary statement if you were doing

just looking at the observable characteristics of how you might write that in a report. Now assessing the affective components and the cognitive components are a little harder. So the results from the OASES, the CCSA, can help you do that in baseline. You also have to understand that children may be initially hesitant to talk about their stuttering or emotions or reactions. So you might be able to have them do drawings. You might be able to show them videos featuring children who stutter. Different books about stuttering will help get them talking about it. We're gonna tackle all that again in the treatment side of this in a couple, next week, to talk about how we would use those in treatment, but just know that sometimes kids initially are not gonna spend a whole lot of time telling you exactly how they feel, okay?

Could you please repeat how you convert to words from syllables on the SSI? Sure, so you would just take the percentage of words that you got by doing your own tally. So if I got that the child was 15% disfluent on words, I would take the 15, I would multiply that .7. So 15 times .7, that is gonna be 10.5, and so that would be my percentage in syllables, 10.5, and I'm not really good at that kind of quick maths. So I had to pull up my phone calculator to do that, but that's an example of how you would do it. So it's also really important to allow the child to express their feelings about stuttering through art. Pictures can be really important.

How do you stuttering make you feel? Draw that for me. How does it feel like, what does it feel like when you stuttering? Draw that for me. What do other people do when you stutter? Talk about that or draw that for me. Emojis, great to use right now, right, 'cause emojis are the big thing. So you can use scales, images to assess how a child is feeling about their stuttering. You can use like a one to 10 chart. You can use a Likert scale. I actually like the emojis best now because children can. I'll say okay, here's a whole bunch of emojis. Circle the one that you think goes best with this aspect of your talking, and then we talked about it, all right? So there's a lot of ways you can go about getting that information initially. So for preschool children, you determine if treatment is

indicated based on assessing all the risk factors we talk about, is stuttering increasing over time, staying the same or decreasing? If it's increasing or staying the same, you want them to be in treatment probably. If they started stuttering three or four months ago, and now it seems to be going down consistently, that's something that you can probably just watch closely. I would never tell anybody let's just wait and see. I tend to favor a more watch and see where if somebody comes in and I say okay, let's watch and see how it goes. I want you to check in with me every couple weeks for a while just via email or a phone call and let me know how things are going. We talked about before age is not really that important. If I see a kid who's two who has risk factors and has some frustration, and there's a reason to do it, I'm putting them in therapy. The important thing to remember here is that there's not a bad outcome that's generally gonna happen for therapy if you do it the right way.

Now if you bring a kid into therapy at two and tell them how bad stuttering is and how fluent you want them to be all the time, that's not something that I would recommend or be on board with doing, but if you're doing the right things in therapy which we'll talk of a lot about as this seminar goes on, the series goes on, you're not gonna have something bad happen.

So I tend to be much more conservative about those kids because the outcome of getting kids into therapy early is so much better than waiting. So you know if there's risk, I think you intervene. Now with older children, there's some questions you have to ask. Does the child want treatment? That's a big one, okay? What are their expectations for treatment both the child and the family, and can you give them what they want and what they expect? So if a person says I'm only gonna be happy if I can get to a place of complete fluency 100% of the time, I can't give them that. I don't feel like as a clinician I can do that. I'm not a miracle worker in that way. So we step back and have a discussion about like why can't give you that, but here's what I can help you with and see if they can come on board with that. So we wanna know about what

their goals are. Most of the time when you ask kids at this age, the older children, the teenagers, the school-age kids, what goals do you have for therapy. The answer you're gonna get is I wanna stop stuttering, and that's a great place to start therapy because what that can be is you know okay if here's how I would respond to that. If you come here for treatment, one of our goals is not going to be to make you stop stuttering completely. Here's what we're gonna do. What we know about stuttering is that if you are eight, nine, 10 years old and older, this is probably gonna be something with it with you for a long time, okay, in some way. Here's what we can help you with though. We can help you work on stuttering less.

We can help you work on stuttering so that you don't have as much tension or the secondary behaviors. Most importantly we can help you so that talking isn't as much work and effort for you. We can make talking easier for you. We're gonna teach you a lot about stuttering so you become the expert in it. So when somebody says why do you talk like that, you know what to say. We're gonna help you become the expert in it so that you know why it happens to you and what's going on with your speaker system when it happens. We also are gonna help you work to educate other people. We're gonna help it so that we talk through things so stuttering doesn't keep you from doing the things that you wanna do.

One thing that I always say to them at the very end is no matter what you were gonna be in life if you didn't stutter, my goal is for you to be that as a person who stutters, and for again 95% of kids and parents, if you frame it in that way, they will say yeah, that's actually what we really want. We just didn't know how to say that, but every once in awhile you will get a person that says no, I only wanna be fluent, and then you have to have a discussion about whether or not this is a good fit for you clinically in terms of the expectations of not being able to give them what they want. Now it's other also really important here is the child ready to make changes. Imagine taking the thing in your life that you feel the least comfortable about and the least self-confident about

and saying now we're gonna work on it everyday. Not too many of us would get it really excited about that and say yes let's go do that right now, okay? What we're gonna ask the people to do in terms of facing some of these difficult situations, facing some of the difficult reactions and emotions that they have is not easy. So they have to be ready for it. If they're not, you don't wanna force them into doing treatment when they're not ready because what's gonna happen is they're going, there is going to be a time when they already, all right? If you force them into it when they're not, they're only gonna have that negative experience to look back on and say even when I'm ready now I don't wanna do this 'cause it was awful last time, and the parents have to understand that as well, okay?

So when we have to, we look about developing goals, preschool, we develop goals for the parents, the children, these are either direct or indirect, and we'll talk a lot more about that you know as we get into the treatment side. For school-age adolescents and adults are goals focus on education, fluency, overall communication, thoughts and feelings, tension, secondary behaviors. Now I had a couple of just case study protocols here, but I think we've hit a lot of this actually as we've gone through the questions to just kind of talk about like how we would work through this.

So in the interest of time, I won't spend too much time on these, and I'll hit any more questions that you might have because we do have some case studies plan like this as we work through the therapy side as well. So I'm gonna make sure hit the rest of the questions that you all have for today, and we'll go back and get those if we have time. Okay, first question. So if a child is not ready and parent is pushing how do you explain to the parent that you are making? I would explain it just like I just did. I would just talk to the parents specifically about how you know there's gonna be a time probably when the child is ready, and we wanna capitalize on that time. If we force them into doing therapy at a time where they're not ready, number one, they're not gonna make progress. They're gonna get frustrated. Parents are gonna get frustrated, and then

they're gonna come back and a year, two years, three years, and the kid's gonna say well I really need therapy now, but I don't wanna do that again 'cause it was awful. So we sit down, we have to talk about that. Sometimes what I've done in the past too is I actually have kids make a list of all the things that are important to them right now in their life until they get to stuttering and speech therapy, and you know if there's a question about this, and if that's helpful because parents can see like playing Xbox, sleeping, texting with my friends is all in more important than stuttering and speech therapy. So it gives them an idea of how the child's perceptions are as well. Do you have a list of recommended goals?

Again, that will be recommended goals. Yes, we have specific goals that we're gonna talk about in the treatment webinar next week as part of this stuttering series. I think we are right at the two o'clock mark right now. So I'll stay on for a couple minutes if you want with additional questions if you have. Otherwise. Okay, sorry, can you review at least one of the case studies in the slide handouts? Yeah, I can go over them quickly if you wanna do that.

Okay, so the preschool one I have is a four year old boy with a family history of stuttering, no other speech language concerns, stuttering started over a year ago, child is aware of their stuttering and starting to exhibit negative reactions, avoidance, decrease utterance length, disfluency rate is 15% with repetitions, all types, prolongations and blocks. We see moderate physical tension, pitch loudness changes, secondary behaviors, eye blinking, head movement, SSI for rating is moderate-to-severe. This is obviously a case that we're gonna want to do direct therapy with very quickly, okay, because we see that, we see the awareness starting to exhibit negative reactions. We're not gonna wait on this kid. We're not gonna wait to start talking about stuttering. We wanna start talking about it right away, and so I wanted to kind of show that, and honestly this 15% disfluency rate doesn't really matter to me. With all of these other things going on even if it is fluency rate was like

2%, not 2%, but like 5%, I would still feel the same way, all right. Now the older chase that I have here is the kid's 16, been studying since age three, they had previous therapy focusing on improving fluency, it's impacting their ability now to participate in school, thinking of choosing a career they don't want because of the perception of required speaking. Their OASES score's in the moderate-to-severe range, speaking difficulties noted would be talking on the phone, starting conversations, talking in groups, participating in school, job interviews, and ordering food, and their disfluency rate is 5.5%. Now this one I purposely put in here as a low disfluency rate of 5.5%. So what are my goals in therapy? Well my goals in therapy are all of this specific difficulty noted. I wanna work on ordering food. I wanna work on job interviews. I wanna work on participating in school, talking in groups. The disfluency rate is probably gonna be the last thing that I work on in terms of improving their disfluency rate. There's so much other stuff here before we even get to the disfluency rate that we actually don't even know in this case what their disfluency rate actually is because if I work on all of these other things, and they start talking more and interacting more and participating more, they might be at 15 or 20%, and I don't know that. So this is a really good example of how you have to weed through all the other things and work on them in treatment before you can get to that last piece, okay? All right, Amy, I know I think you said you wanted to wrap at this point. So I'm gonna just leave it there for right now.

- [Amy] Yeah I think we better wrap up. I know that some folks will have clients to return to and so forth. So you will go ahead and wrap up. I wanted to remind our audience that part two of this four-part stuttering series will be on Tuesday. It's at a little bit different time. It's 3:00 p.m., Eastern, and 12:00, Pacific if I'm doing that time zone calculation correctly, and then the the last two parts of this will be on May 21st and 26th, but as usual if you are not able to make all of the live events, they will be available at least in video format within a couple days after the live webinars take place. Craig, I wanted to thank you. We're off to a great start with this series. I'm looking forward to hearing you and Mary speak next week about the ripple effect of

stuttering and using that community-based approach to treating stuttering. So thank you, and we'll look forward to seeing you again next week.

- [Craig] Thanks, Amy. I appreciate it. I appreciate everybody coming out and being so participative today. It was awesome to get to see and talk to everybody over this format, and I look forward to seeing you all again soon next week.

- [Amy] Okay, we'll go ahead wrap it up. Everybody stay healthy out there and take care.