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JFK Center  
Teaching Music to Students on the Autism Spectrum: Translating  
Research into Instructional Strategies Webinar  
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>> Hello everyone and welcome. I'm Lisa Damico. Today's webinar is part of a monthly webinar series that comes out of the John F Kennedy Center. If you would like to view live stream captioning of this webinar, follow the link you see on this slide and also, in the chat box of the control panel located on the right side of your screen.

Before we get started, let's take a moment to ensure that everyone is ready and familiar with the go to webinar control panel that you should see on the right side of your screen. If you need to leave the webinar early, you can exit out of the program by clicking on the X in the upper right corner. Make sure that you've selected telephone or mic and speakers to correspond with how you're connected to the webinar. And finally, you have the ability to submit questions using the chat pane located near the bottom of the control panel. Your questions will come directly to me. When we have a break in the presentation, I'll relay them to our presenters. We'll have a question-and-answer session at the end of the presentation, if you'd like to hold your questions until then.

I want to emphasize that following the presentation, I will send out a follow-up e-mail with a link to the recording of today's presentation, a copy of the PowerPoint and a copy of the transcript. This means you don't need to worry about frantically taking notes during the presentation. And before I turn it over to our presenters, I'd like to let you know about next month's webinar. Managing Behaviors during an Arts

Residency. Everyone who is registered for today's webinar will receive an e-mail invitation with a link to register.

With that, I'd like to introduce you to our presenters. Dr. Mary Adamek and Dr. Alice-Ann Darrow who I'm thrilled to have presenting today. I believe they'll get our presentation started with a little music.

>> Thanks, Lisa. I asked a couple of our students to come in and just give a brief example of how they might use students with adolescence who are on the spectrum. It seems to be one of the areas that people have difficulty finding appropriate music and how to structure it to work on some of the skills that many adolescents need on the spectrum. That's conversational skills and responding appropriately to their peers. So...I'm going to let them start right now, Laura Mian and Dan Palmari.

>> Good afternoon, everyone, we'll do a little bit of script-type of role play. It's age-appropriate for young adolescents. We're working on emotions and conversations and then you'll also hear me mention a little about eye contact in here as well for students on the spectrum. So...good afternoon, Dan, how are you doing today?

>> Hi, Laura.

>> Doing all right?

>> Doing well.

>> What emotion are you feeling this afternoon?

>> I feel happy.

>> You feel happy, that's wonderful. I see that it's sunny outside, have you been outside and noticed that?

>> It's very sunny today.

>> That's great and how does that make you feel? The sun? When it's sunny?

>> When it's sunny, I feel happy.

>> Could you look at me and tell me you're feeling --

>> I feel happy today.

>> Awesome, that makes me happy as well. Dan, what's something else that makes you happy? What's something that makes you feel happy?

>> I like to ride my bike.

>> You like to ride your bike, days like today are great for that. Did you get to do that this past weekend?

>> Yep.

>> So riding your bike makes you feel....

>> Happy.

>> Can you look me again in the eyes when you say that.

>> Yes.

>> Makes me feel happy.

>> We'll sing a little bit of our song today.

>> Okay.

>> I've got happiness on a sunny day. When it's cold outside I've got the month the May. I guess you'd say, what can make me feel so happy, my bike. My bike. Talking about my bike. My bike.

>> Okay, it's just an example of taking a popular song that kids like and adapting it to their emotion, what makes them happy and incorporating that into the words of the songs. We feel a little bit tied up here. Because of the technology, it's hard to use music. The only way to have music is for Mary or me to sing. We're better at talking. So that's what we're primarily going to do. We will have some music later. Mary?

>> Okay, all right. Can you see the PowerPoint now?

>> Yes.

>> Is that on --

>> Yes.

>> All right, well I'm Mary Adamek. I'm going to start our presentation today. The, just a quick overview of what we'll be talking about for the next 45 minutes are listed here. I'll give a brief overview of the characteristics of individuals with autism and my disclaimer; I realize that most of you had experience with individuals with autism. We are serving a pretty wide audience today of over 100 people and we all come with different different understandings, different levels of experience. So we're going to do a brief overview and we'll be moving on to some things that I hope if you're familiar with the characteristics, that we'll be able to enlighten you on some other other, other features.

We'll be doing some sample research outcomes, giving you some information about some sample music research that's been done and then we'll finish off with some implications for teaching, specifically focusing on Universal Design for learning and self-determination.

Before I start talking, I want to do a quick poll and Lisa's going to help me with this. I'll read the, the poll question and the answers and then Lisa will chime in and give us the outcomes.

So, according to recent data, the demographics of individuals diagnosed with, on the autism spectrum include A, one in 110 are diagnosed with ASD, no gender differences. B, one in 88 are diagnosed with ASD, boys more prevalent. C, one in 88 are diagnosed, girls more prevalent and D, one in 110 are diagnosed with ASD, boys more prevalent?

>> Everyone should see the poll on your screen. I'll give you about 15 seconds more to click on your vote. Then we'll share the results with the audience. Five seconds more. All right...so...it looks like 9% said one in 110 are diagnosed with ASD, no gender difference. 61% said one in 88 are diagnosed,

boys more prevalent, 2% said one in 88 are diagnosed, girls more prevalent.

>> That's really interesting, the correct answer, or the current correct answer, I should say is B. So...about 2/3 of, of you have that. It used to be D. So, if you answered that, you were, you were correct, a little bit ago. But the new data suggests that one in 88 individuals are diagnosed with autism spectrum disorders, boys more prevalent.

The reason I put this slide up is because it's it's obvious to all of us that there are many, many individuals with autism all around the world and we will be working with lots of them in the arts, and those, those numbers continue to increase. So, it's really important for us to figure out effective approaches.

My okay, here we go. So, my next slide is some frequently asked questions and you'll see a lot of different questions here that have come across when Alice Ann and I have done different sorts of presentations before. What I want to share today, is that we don't have all the answers we don't have a cookie cutter approach or recipe for success that we'll be giving you today. So I hope that you stay with us, even with that disclaimer, but what we will provide are ideas, principles, research and resources to help support your work with individuals with autism.

Some of these questions that people have asked, what can I expect from a child with autism? How can I find out about the students involved in the process? Who can help me? How can I help them be successful? How do I mechanic unique behaviors when I have several other students in the class? What music is appropriate for students with limited skills and hey, I'm not a music therapist, but I feel like I'm expected to function as one. Help?

Okay, so, a brief overview. And, quickly going back to that last slide, I wonder if, if you've had any of those questions before. So, be thinking about that. Brief overview of autism spectrum disorders. We know that autism is a developmental disorder of the brain and that, um there, are perceptual cognitive and motor disturbances that are evident in individuals who have this diagnosis.

Current understanding is that that the causes of autism are, autism is caused by abnormalities in the brain, due to heredity, genetics and environment. There's not just one cause, it's looking like a multipronged disorder.

Causes a broad range of abilities and degree of developmental delay and as we all know, some individuals with autism have cognitive impairments, while others have high cognitive skills.

In order to have a diagnosis of autism, these three bold statements need to be somehow evident. Impairment in social

interaction, impairment in verbal and nonverbal communication and restricted repertoire of interests and activities. So spontaneous social interaction is usually limited, use of gestures limited, receptive and expressive language difficulties and certain unusual behaviors, some motor behaviors, some repetitive behaviors, and some unusual repertoire of interests.

This is my favorite slide and I showed this often because it's important for us to understand that, that all of these areas, such as measured intelligence, social interaction, communication, behaviors, sensory and motor skills can range along a continuum in one individual from severely impaired to gifted, aloof to odd, nonverbal to verbal, intense to mild, hypo sensitive to hypersensitive and uncoordinated to coordinated. You could put a dot along any continuum and describe a person with autism.

What I always tell my students, one person with autism, you know one person with autism, because people can have different abilities along these continuum.

So, the next few slides, I'm just going to talk about a few potential issues, first one related to communication. Certainly we're going to have individuals who have different communication skills from their typically-developing peers. They may lack spontaneous social imitation, gestures, spontaneous language, they may have processing problems. So they have difficulty understanding language. Or, they may have difficulty expressing their wants and needs. And many individuals with autism use some sort of alternative and augmentative communication system. So if you have access to a speech and language pathologist, I always suggest that you collaborate with them and have them put some of your music symbols on whatever the AAC is, that the student is using. So they can actually communicate better with you and practice communication skills.

Potential social interaction issues, uh...broad range of abilities and needs related to things like eye contact, touch, boundaries, understanding perspective of others and relationships. And certainly, functional communication goes hand-in-hand with social skills. We need to build both of these types of, of skills to help the, the individual be more effective in their communities.

Potential sensory processing issues many of us know that, many of us know that individuals who are highly overstimulated by sounds and lights and touch. And that can be very difficult in the music setting when we're using different instruments and different voices that, to you, might sound just fine. For instance, using tone chimes, to my ears, is just fine. But for some individuals with autism, the overtones are very difficult for them to hear. They may become overstimulated. It actually

might be hurtful to their ears. We need to watch for behaviors that indicate sensory processing problems. Sometimes those behaviors are aggressive or self-injurious behaviors. We may see stereotypical or inappropriate behaviors. This usually happens because they have difficulty processing the stimuli around them.

And then, a lot of times, behavioral issues may come up from those sensory problems or from other issues. Poor focus of attention, aggression, and some self-stimulating behaviors may happen due to their environment.

It's important for us, as music professionals to look at what the student is able to do. They may have language and communication wants and needs, but they'll still have difficulty related to communication. It's part of the diagnosis. They may make eye contact and seek others out, but they still have difficulties in social interactions. They may be nonaggressive towards others, but still have difficulties related to behavioral expectations. I always challenge people and encourage people to look for what the student can do.

>> We talk about why music? Why does it seem to be so effective with children and adolescents on this spectrum? And we know from the data on musicality that it is, the bell-shaped curve is skewed to the right for individuals on this spectrum. More in children and adults, even, with autism, seem to have an affinity for music. We also can engage individuals in music verbally and nonverbally. Music is enjoyed by most everyone, I know no one actually, who doesn't like some genre of music. And I think we all feel it improves our quality of life. And, in participating in music, especially with others, it strengthens the human connections. And it also gives individuals, particularly those who may have limited social skills, something to do with their leisure time.

In music education, and in music therapy, we talk about evidence-based practice. And what I mean by evidence-based practice is that the kinds of interventions we use with individuals are founded in research. So, I wanted to share just several examples of research that's been carried out with individuals on this spectrum.

They were master students of mine who did theses in this area. The first one I found particularly interesting because it called upon the research that already existed and it was social stories. I'm also going to talk about prescriptive songs and then the use of background music and song texts.

In the literature, Gray wrote about using social stories to remedy problematic behaviors with individuals. She developed a formula and a system for using short stories that children would rehearse and read the story, rehearse it, and think about it

before going into a situation where the problematic behavior typically occurs.

So, a social story is a short story that adheres to a specific format and guidelines to share relevant information about where and when a situation takes place, who's involved, and what's occurring and why?

There are basically four kinds of sentences that compose a social story and they are descriptive. And those sentences objectively define where a situation occurs and who's involved, what they're doing and why. Then, perspective sentences. Those are statements that describe a person's internal states, maybe how the child, themselves were feeling or how others engage in the problematic behaviors. Can describe a physical state or reassure the child.

There are also directive sentences. Those are statements that define what's expected as a response to a given cue or situation. And control sentences, that are statements written by a student to identify strategies that they can use to recall information, or to reassure him or herself and to find their own response.

So, people say, well how do I write a social story? Well, the first thing is to identify a target behavior. And an example I have today, it is hitting my mother, it's talking about TV too much, what I've seen on TV. And the other is talking too loudly.

So you identify the target behavior, the problem behavior for the story. Then, you might define those behaviors in some observable way and then collect some sort of baseline data on how much that behavior occurs. Then you write the story, using those four kinds of sentences and you place one to three sentences per page. And this is part of the guidelines for doing this. Either white print on black paper or white print on, white print on black paper or black print on white paper.

You might use photographs or hand-drawn pictures or icons to follow the story. Then either you, as the parent, or the teacher, would read the story to the student and model the desired behavior. And after reading the story consistently, then you'd collect more data and count the number of times the behavior occurs to see if the social story has helped. And if it does, then you continue to use the story. And so, you don't have to read it to the child every time, you might decide to record it. And, have the child listen to it before they go into a problematic situation.

Here's an example of a social story. So it's, when I get angry, I sometimes hit Mummy. This makes Mummy sad. That's a perspective sentence. When I engage in the problematic behavior, how does it make the other person feel? When I feel

like hitting, I need to stop. Then the strategy is I will hold my hands and take five deep breaths. Because this will help me stay calm. And then again, the perspective sentence is Mummy is happy when I'm calm.

Maybe it's when a child is getting ready to go to bed. They don't want to go to bed, so they hit Mummy. Maybe making this the bed time story.

Well, I had a student who said "that's great, I love this research on social stories, but why don't we set it to music and make it a social song." So taking the story and putting it to music and having the child sing the story. So the purpose of his study was to investigate the musical presentation of a story.

Peter talked about TV at school all the time. And it annoyed his teachers and his friends. Whatever he watched on TV the night before, he'd keep talking about "Star Wars" or whatever.

So they wrote the social story. Sometimes I watch TV or movies at home, but when I'm at school, I'll try not to talk about the things I watched at home. If I say things I heard on TV, my friends might not know what I'm talking about. My friends like it when I talk about other things with them. Which would be a strategy. I need to remember to talk about other things besides TV. If I talk about TV, I might not hear what Mrs. W is telling me. She likes it when I don't talk about TV. I will try not to talk about TV when I'm at school.

So the data showed, on the baseline, you can see, that very first box is the baseline and then when they read the story, before going into a class where they typically talked about, Peter typically talked about TV, it went down. Then they withdrew the intervention and the behavior went back up. In the fourth box, rather than reading the story then, they say it as a song. And you can see that the behavior diminished even more when they sang the song, when they sang the story as a song.

Nathan's problem was using a very loud voice when he talked. Sometimes I need to use a quiet voice, people might talk loudly when they're outside, but people talk quietly inside. If I talk quietly inside, my teacher and friends can still hear me. If I yell inside, I might scare my friends and teachers. I don't like to scare people, I will try to talk quietly inside. And what's really miss here is a strategy. And, a strategy might be to put your fingers to your lips, to remind yourself to talk softly. Um...or to a tally mark every time you remember to talk softly. Anything that might serve as a cue or a prompt or a substitute behavior.

So, with Nathan, you can see in the first baseline, the first box, the behavior is pretty high, especially on the fourth and fifth day. They read the story, the behavior dropped. They

withdrew the story reading and the behavior went up during the second baseline and then they sang the story and the baseline dropped a little farther, not much farther than reading the story. It's probably not a significant difference, but during both interventions, the behavior was diminished.

And then Varvara Pasioli said a lot of parents have problems with behaviors at home. How can I use music to help parents at home? And one of the examples was a child who used nonsense words at the table. And it annoyed people because no one could respond to him at the dinner table. They didn't know what he was talking about. Another was rummaging in the kitchen when no one was around. She used the same principles of social stories and applying it to music, but she did something different. Rather than composing an original melody, she put the melody of the social story to a song the child already liked. They set the story to a song like My Girl or whatever song they liked. They sang the song before they went to the dinner table. Every another, the mother would say "go in the bedroom and play your song." They'd go and sing it about not using nonsense words at dinner and then come to the table and they took data every night at dinner. And singing the song before dinner diminished the use of nonsense words at the dinner table. Okay?

And the other one, I was going to talk about was using music to teach emotional understanding. And there were four conditions in that one. No contact control. They didn't really try to do anything to teach the selected emotions, which were happiness, sadness, fear and anger.

And then they had a contact control and they took something from the research which was a script about the emotions. The third condition, was reading that same script, but playing background music to it. That was like scary music, music that sounded happy. Um...fearful music and I remember that music was sort of a takeoff on Jurassic Park.

And the fourth condition was singing songs about the four emotions. These were specially-composed songs about the four emotions and when you might feel happy and when you might feel sad, et cetera.

So this next poll question is, I want you to take a stab and guess which one of these interventions you think might have been the most successful? We're going to eliminate no contact control because that was just to compare the interventions to a baseline or no intervention. We call it a control condition.

Do you think it was verbal instruction alone or verbal instruction with some background music depicting the emotions? Or do you think it was single specially-composed songs?

>> I'm launching the poll now.

>> Unless you've read the study, you might not know which was

successful, but just take a guess.

>> I'll give everyone ten seconds more to vote. All right...so, it looks like 0% said verbal instruction alone. 24% said verbal instruction with background music. And 76% said singing specially composed songs.

>> Well, actually, the one that was most successful was the second one. Verbal instruction with background music. So...I think that perhaps, you know, when you write a discussion section for a research study, you have to conjecture why it might have been one rather than the other. And I think with the singing the songs, maybe it was the words and the songs, but when you had the verbal instruction with background music, those were not connected. They were separated. The background music was just accompanying the words, rather than singing the words. I think because of the propensity of kids to like to sing, maybe they got caught up in singing the songs and weren't listening so much to what the words were saying. I think many kids sing a lot of songs and you say "what is that song about? What does it mean?" And they don't know.

When they heard verbal instructions about emotions and very eery background music for scary, she did a very good job of improvising the background music, so and I remember the scary music I thought "wow, what a great job at improvising music that sounds pretty scary to me." So it was B, actually.

Finally, I want to share some apps that I think that you'll find interesting. And you will get these, you'll get our PowerPoint. You don't need to write down the links, but this is a particularly good site and it's from Autism Speaks. If you've not been to the site, you want to be sure to go. What I like about these apps, they're categorized by content area and there are many, many, many of them. And the categories like speech, social skills, emotional understanding, et cetera and then it will tell you what platform they can be used on and then finally, how much they cost.

So that's one site. Another site is emotional understanding as well and you want to go to the next slide. And these are some of the examples, like first words, feelings, kitchen match letters to spell feeling words. Moody monster manner, flash cards, touch and learn. Some use drawings, some use real photos, because some children can't make the transfer to a cartoon drawing to actual pictures of individuals, or they do better with real pictures.

But the first one, feel electric is very good for middle school students. It also has a journal that students keep. It's taught in more of a game format.

The next one is next slide is social and emotional learning. And it's five apps for social and emotional learning. And

they're not included in that other site, so that's why I wanted to mention this one as well.

And then the final slide, teaching emotions, and what I like about this one, if you go to the next slide, Mary, that middle one has music accompanying it too. So, if you think about that, this app will help you do that. If I were working with a child and wanted to talk to them about emotions and I'm a musician, I might try to sit at the keyboard and improvise music as I'm talking to them about emotions. Or if I can't do that, I might find some music and I have used movie music because it's so specific about the emotion that it's trying to depict. A death scene for example, I used from a movie to, depict sadness. And again, Jurassic park, when people are getting chased, for scary music. And a very percussive, angry-sounding music, sometimes contemporary music is good for that. John Cage, for example.

And finally, there's a website called songs for teaching and we're going to one website and there's a whole list of songs specifically for children and adolescents with autism. And we're just going to play one of them. And it's a hello song.

>> Everybody sing hello. Hey, hello. Hey, hello. You can do it if you [indiscernible], hey, hello. Hey, hello. Everybody sing along, hey, hello. Hey, hello.

>> And I particularly like that one because it has the lyrics and the music.

>> Okay, I'm going to finish up here talking about some, how to think about some effective strategies, including the principles of self-determination and Universal Design for learning. It's really a theory of motivation and it is concerned with supporting our natural or intrinsic tendencies to behave in effective and healthy ways, which is really what we're all trying to do for ourselves and for the people with whom we work.

The people who really developed this idea said when self-determined, people experience a sense of freedom to do what is interesting, personally important and vitalizing. Isn't that what we all want for quality of life?

So looking at these components of self-determined behavior, I want you to think about how, in your music setting, you already practice or you could practice some of these components of self-determined behavior. The first three here, choice-making skills. Appropriately choosing among a finite number of choices and we all know with individuals of autism, a lot of times we have to give them just a couple choices, because too many might overwhelm them.

Practice problem-solving skills. Practice decision-making skills. Making the most logical decision based on the pros and cons.

The other components of self-determined behavior are things like goal-setting and attainment skills. So setting appropriate goals for ourselves and identifying put actions that are needed to attain those goals. Self-regulation skills, monitoring and evaluating self. I think, to those social stories that Alice Ann just talked about and how they can be very useful in practicing our own self-regulation, our own self-monitoring, which is very important for these individuals.

Self-advocacy and leadership, requesting assistance when needed, knowing rights. We have lots of opportunities to practice leadership skills. Self-awareness and self-knowledge. Knowing what we can and can't do. Strengths and weaknesses and self-efficacy. Understanding our actions have consequences and willing to accept the consequences. Think about what ways I practice these self-determined behaviors with the individuals with whom I work.

So self-determined students become causal agents. And we help them to do that to the highest extent possible. So if I'm working with students with higher cognitive skills, we can practice these components of self-determined behaviors by working on decision-making and goal setting. Related to the music performance experience. Giving opportunities for the individual to give input, make some choices and set goals.

Choice-making regarding music involvement. What's their role? What do they want to do? Assist with decisions about necessary support levels, how much support does a people need? Do they want peer support, adult support? Do they need support outside of classroom? Practicing leadership opportunities, modeling appropriate assertiveness and reinforcing that and providing opportunities for self-evaluation.

If I'm working with students with lower cognitive skills, I'll give them the same general opportunities, but they need more support. We, as music professionals, need to develop the strong awareness of the student's communication styles and abilities. So that we can help them use their communication to make decisions, to make choices. No matter how small those decisions and choices are. It's, it's the idea of being able to let your wants and needs be known.

The level of support will, will vary depending on the student's functioning levels and we need to provide support so the student can be as independent as possible, rather than doing it for the student. And, as you know, often this is difficult because a student with autism may take much longer for processing verbal directions or even visual directions. So, we have to wait sometimes and not just do it ourselves.

And then, we want to advocate for the student to make choices, express self, and practice independence.

So, those are elements of self-determination that we, as music professionals, can very easily work into our music setting. And, it's also another way to advocate for music, for individuals with disabilities. To say that we can practice these very important self-determination skills right in the music setting that can be extremely engaging.

The other principle I want to talk about that is called Universal Design for learning, which I'm sure many of you are familiar with, in UDL or Universal Design for Learning, it calls for multiple means for representation, multiple means for action and expression and multiple means for engagement. We're going to present information and content to students in a variety of ways. As music professionals, we've got this covered. We can do things visually, auditorily, kinesthetically. We have lots of ways to do that. Think about ways you already do that. Multiple means for expression, providing students the means to demonstrate what they know and what they can do in a variety of different ways and multiple means for engagement. Stimulating interest and motivating the students in many different ways.

So, these are questions to ask yourself, for the, for the first circle, the first bubble, I guess, representation. Presenting information. What are multiple ways I can do that? Is it possible to present the information in multiple ways? How do I customize the display of information. Do I use visual? Different auditory means? Do I make my visuals pleasing, but not too busy? How do I do that? Have I evaluated that lately? Is it clear what I present and is it accessible to all? Do I provide background knowledge, big picture, key features. Do I build on things that they already know? And, do I support memory and transfer? Can the students access the information, can outside of class, before class, after class? So that they can build their skills independently. And [audio is garbled]. -- expression of understanding or mastering. Thinking about that slide along the continuum. So I can create expectations and feedback according to their abilities. And the last, uh...segment of UDL is about multiple means of engagement.

[Audio garbled, captions quit passing, captioner reconnected streaming text].

Is there a balance between support and challenge? Making sure that what we're doing is not too easy, not too hard. This is a really important one and one I focus on a lot with my students is what we are doing relevant and authentic?

Is the music I'm using appropriate to the age. Even if the child has lower cognitive functioning. Are we collaborating with other with other professionals am I encouraging students to collaborate amongst themselves? Are students involved in personal goal-setting expectations and self-evaluation.

So, very quickly, I have a few slides with visuals and you can see on here, sort of test yourself. What are multiple means for representation that you're seeing? You probably are seeing that she's singing a song using guitar, they're using some signs. And there are, there's a visual board in the background that they use for different introductions and schedules. Plus, the little boy on the bottom is doing hands on she's demonstrating hands on with the little boy.

Multiple means for expression. Just a quick example with instruments. I might need to use adaptive instruments if I'm using a pick with a child, they may need to use something like the giant picks or they may really like the sensory input from a rhythm pick. If I'm using club bass, maybe that student doesn't have the fine motor skills to do that and they need a club bass holder. They can still participate at the same musical level with extra support for their expression.

And then I realized, this isn't children with autism, but it's a great picture anyway. This I use to demonstrate multiple means of expression. Think about how many times you've used a parachute with your students and they get really worked up. A lot of kids with autism really respond to the, this sensory aspects of the parachute with the visual, the sensory, with the wind, the sound and also, the tactile, as well as their link to, oh I use the parachute in PE class, so we're going to run under it. This is an example of another way to engage. Trying, using the same sorts of movement, but using something different that doesn't have those same sensory issues. This is called an octoband. They're useful and come in many sizes.

Okay, very quickly, I have a little video here. I want you to test yourself. I'm going to do a little singing and test yourself to see what you see as different multiple means of representation, expression and engagement here. Here we go. Grizzly bear or grizzly bear is sleeping in a cave. Please be quiet, very, very quiet, if you wake him, if you shake him, he gets very mad.

Okay...so...you can see then it comes around and repeats itself again did you think about some ways that this demonstrates multiple representation, expression and engagement.

So here's a slide that's going to help you with that. As I teach the song, I can, the students can read words, I can read words, we can sing, we can point to words, we can point to

pictures, we can watch the video, we can have someone act out the pictures. Or the story.

Multiple means of expression, responding to WH questions like who's sleeping? Why is he mad? What's he doing? Students can read, they can sing, they can point to pictures, they can draw pictures, they can color the correct picture. There's lot of ways to express the answers to those questions if that's what you're looking at. And engagement through visuals, through the music, the song, the words and the sign, drawing, acting so, you're covering visual, auditory, kinesthetic learners and providing opportunities for self-expression and access for lower functioning and younger students.

>> Finally, we're just going to recap with some ideas about why we think what we do with music is important. And I like the idea that it gives students a desirable medium that, through which they can develop appropriate social skills and any kind of musical context we, we often sing with other people, play other instruments with other people. We can share instruments, we can talk about lyric analysis with others and share feelings. And practice those social behaviors and listening to each other and responding to what the other person has said. It also gives a medium through which we can develop speech, vocabulary and language skills. So many children have difficulty with vocabulary and language skills. And also, a medium through which they can develop emotional understanding.

There are so many songs that have emotional content, that doing lyric analysis with adolescents is very helpful and using contemporary songs that they like and hear on the radio. And finally, music activities that can be used to structure social skills and to introduce those same social skills.

Asking for permission to hear a song, writing an essay about why you liked a song or why you like someone else's song. It also gives students a place to succeed and a place to develop compensatory skills. All of you have seen videos of children with autism who have, are high-functioning, as far as their music abilities and that this has really given them an avenue to meeting people and making friends. It also gives them an alternative way to express themselves. If they're angry or sad, it gives them a place to make friends. Finally, a way to structure time and as a reinforcement for completing work.

We have some additional resources that you can look at. Mary and I have written a book. There's a chapter on autism in that book. Kern and Humpal have also written a book. Autism the Musical is an interesting DVD. In that musical, every area of the spectrum is represented by one child or another. So it gives students a very good idea of the kinds of students they

will see in the classroom and the wide range of skills and abilities.

And I think now, we'd like to open it up to questions.

>> All right, I just sent out a little reminder to everyone, now's a good time to start thinking about questions you'd like to ask. So I'll give you all a few minutes to type up your questions or if it's easier for you to raise your hand and ask our presenters your questions directly, you can do that as well. I'm going to switch back over to my PowerPoint.

I do have one question that referred to one of the research pieces you were talking about. Who composed the songs? And the one where you were talking about the scary music.

>> Well, on social stories, the first one, Mike Brownell, he composed the stories. Usually the social story is written in collaboration with the child. The parent or teacher might write the story with the child. They're pretty simplistic. That's part of the guidelines. And, it's really a sophisticated kind of behavioral prompt. But the idea is that there are directives and perspective sentences that talk about how your behaviors affect other people. Those are important components of the social story. But, in that case, Michael composed the stories with input from the children. On the piggybacking one, the prescriptive songs that were done for children and their problematic behaviors and the home environment, they used popular songs that the children liked. Because we felt that may motivate them to practice the song, and so, and I think it was effective. So in that case, nobody had to compose the music. They just asked the child "what's your favorite song" and then worked to make put lyrics fit the melody. The therapist sang the song with them on a guitar and they recorded it. They practiced the song at home and sang it before a problematic situation like in the store. There was one child who would temper tantrum in the store if they didn't get gum or something. So the mother put the song on, at the time, it was a cassette tape and they sang it in the car on the way to grocery stores. It had all the prompts and cues and strategies built into the song.

>> Nobody had to compose music.

>> The questions are now starting to pour in. I'm going to start at the top. Casey would like to know is there something you can use for all age groups up to high school.

>> Well, I'm on my slide with all of those different abilities. Sometimes it's, we want something that's, that's appropriate for everybody, but that's not really out there. I'm not exactly sure what Casey's looking for, but a lot of times, I will encourage people to, to take a look at the music from the music education series in the district where they're, where the

child comes from and maybe adapting some music from there, at least getting an idea of what's age appropriate. What's happening in the music classroom there. It's not usually very difficult for younger kids, but for older kids it's a little more difficult. But, also, things like world music can be very useful. The question I always have is what are you trying to accomplish?

>> As far as materials -- that website, on songs, I listened to all those songs and some of them are obviously for children. Others are more rock beat so they're more appropriate for, perhaps for middle or even high school students. Those apps, some of those apps, again are definitely designed for children and others are designed for adolescents. So...I think when you go through some of those materials, you'll be able to identify which ones are appropriate for children and which are appropriate for older children. Both the songs and the apps, it covers the age range.

>> I think you all answered Casey's question exactly. She was wondering if what you talked about today is age-appropriate for all age groups or just younger children. I'm going to scroll back up. Um...where can I get access to the journal of music therapy and music therapy perspectives to read more research? That may be a question you have the answer to, if not, we can research it and get back.

>> If you have access to an academic library, many academic libraries will have that and it's can be found, digital, you can ask the reference librarian at an academic library for access to the journal or specific articles.

[My apologies, the captioner has a hard stop at 3:59 p.m. ET].

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