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Occupational Therapy, the High School Student with Autism, and Research Trends

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- [Fawn Carson] Today's topic is Occupational Therapy, Autism, The High School Student and Research Trends. Our presenter today is Marina Scott. She has been an Occupational Therapist for 17 years. She has a Bachelor's Degree in kinesiology and a Master's Degree in occupational therapy. She has spent her career in school districts both private and public. Early intervention and private pediatric clinics. She has a daughter and her hobbies include reading and knitting. Welcome Marina, so happy to have you back.

- Hi, thanks so much Fawn. I appreciate the introduction. As Fawn said, my name is Marina Scott and I'm an Occupational Therapist. I'm so glad that you guys are here today to listen in. I really appreciate your time. I know in our busy schedules it's nice to be able to sit in and listen in on something. So again, thank you so much for being here. Our topic today is going to be about Occupational Therapy, Autism, The High School Student and Research Trends as Fawn just said.

And so I wanted to talk about this subject partially because it's important to me. But I also think it's one of those topics that is often overlooked. So, we're going to chat a little bit about that and go from there. So I just wanted to review the learning outcomes first. The things that I hope you get out of this course are that you'll be able to recognize the common struggles for the high school student that has autism. That you'll be able to list some key research areas and some current research trends. And that you'll be able to define the role of OT with a high school student in autism. Including occupational therapy and research. So I'm gonna tell you a little bit more about me. And that is sort of how the topic came about. I have been an Occupational Therapist as Fawn said for about 17 years now. And I worked in private schools, in public schools and in private practice settings. And currently one of the places that I am working is a private boarding school in the northeast that is for students who have

non-verbal learning disabilities and are on the autism spectrum. So, I've been at this school for about six years now. And one of the things that I realized is that there really seems to sort of be a struggle for high school students. And I think especially when it comes to occupational therapy.

So as we're going through this presentation you might think some of the information on the slides is basic or things that you already know. But I'm going to explain to you why I put them up there. Because I think in my experience what I've really learned is that a lot of people, including administrators and staff and other support people, are really sort of confused about what occupational therapy could do at this level. And I have also found just in sort of mainstream social media, things like that. I keep seeing all of these things that are going on with students with autism. And I keep thinking occupational therapist could do that, we could do that. And whenever they're talking sort of about the people that are setting up these programs or moving them forward or getting funding for them. It's not ever really an OT. So I thought it would an important topic to touch base on and that is the premise for this entire presentation today.

So again, like I said. Some of the slides that you will be seeing you will think are some basic information but I'm going to explain to you why I feel like it's critical information to have. So the first part is what is occupational therapy? We know what occupational therapy is. We are occupational therapists. I'm assuming that some of you who are listening in are not occupational therapists which is awesome. And so here is a definition of what that is. But I think as an occupational therapist it's also important to go back and to read this definition occasionally. Why? Because you sort of get so ingrained in what you're doing that you're not always really thinking about what occupational therapy is. And I think when we're going out there in the world and we're working with, especially high school students and older. People have an idea of what they think it is and then they're not reaching out to you as a service provider because they think that you're not doing that. So again, that's why I felt like it was important to

actually put up the slides about what occupational therapy is. And I think it's an important definition to have and to make sure that you are promoting as you are going through your work. Especially if you are working with high school students. And even when you're working with staff and parents because again. I think that they can be confused as to what occupational therapy really is. So I have, I just took the definition right from AOTA and their explanation of what it is. And it's helping people across a lifespan. And being able to do the things that they want which is really to live their lives. And I think that that's again, important when you're looking back at high school. It's not just about handwriting or assistive technology. It's about how someone is living their lives. We all know as a high school student high school students are looking for independence. They're moving on, they want to have some freedom from their parents and their families. So, I think that occupational therapy has a big role in this. It's often overlooked. So that's again why I wanted to put some of these slides up.

So it enables people of all ages to try to live sort of their fullest life. Promote health, prevent injury and live better with an illness or disability. Common occupational therapy interventions including helping children but also helping school age children, young children, high school students as we're speaking about today. Adults recovering from injury or regaining skills. And then working with cognitive changes. I think that that's important even in high school. Usually you sort of talk about those things when you are talking about older patients. But I think it's also important to think about in high schools students as well. So, occupational therapy typically includes an individualized evaluation.

The second bullet here is the one that I really like and I should have highlighted the word customized. I think that that's a really important piece. So I'm gonna point it out here. Customized intervention to improve the person's ability to perform daily activities and reach the goals. And their outcomes of evaluation to ensure that their goals are being met. So, I think customized again is the important word. We can tailor what we

do to each individual. And I think that that can be key and something that people don't always realize that we can do. We have a holistic perspective which I also think people tend to forget. You know, adapting the environment. Fitting the task and the person and being an important part of the therapy team. So, again I just took this straight from AOTA. But I think it's important to review yourself as a therapist and a clinician. But I also think it's important that your families, the staff that you work with understand what occupational therapy can really do. I feel like in this area there are some aspects that are really being missed. So that's why I wanted to just review that quickly. For the purposes of this presentation we are going to talk about high school students which encompasses ages 14 to 21. So, we're gonna sort of dive right in. So this is kind of divided into two sections. Which is talking about the high school student in high school. And then talking about some research topics and trends. And then also sort of at the end will be really about what OT's can do with the research and the research topics that are going on.

So of course everybody knows that if you're a high school student and you have autism and you have an IEP or a 504. That if you have an IEP you can have that through your high school graduation or age 21. I believe in some places it's 22. It's interesting because I looked this up because I thought it was in some instances 22. And the information varies depending on the source. So I think it is always important to check your sources. And it really looks like for most purposes it is age 21. I believe there might be some states or some areas where it could be age 22. But definitely through age 21. Interestingly enough, if you don't know IEP's must include a transition plan by age 16. And at 18 the student becomes legally responsible for his or her own IEP. And I find this fascinating because I think a lot of times especially when we are talking about a high school students. We are so used to the parent having the control and being the responsible party. At 18 the student becomes legally responsible. So if your student is going off to college or even if they're still in high school and they're going to stay there until age 21. At 18, they are legally responsible for that. They can

shift or give their parents continued responsibility for their IEP. But you do have to have that in writing. And I think it is important when you're working with high school students, especially ones that will be through age 21. That they understand that they are responsible for their IEPs. They need to be present, they need to be showing up to the IEP meetings. They need to be having discussions as far as their goals and objectives. I think those things are critical and we often sometimes forget that because I think sometimes for the student it can be a very passive process. And the older they get the less passive the process should be. And that is actually one way where OT's can help.

I think OT's can work with the student outside of an IEP meeting to work on what an IEP is and their goals and objectives and how that all works. So that when they are responsible for their own IEPs they have some understanding of what that means. So, the best transition planning should begin around a student's 13th birthday. And I think that this also critical because it seems like it's a little bit young. But really if you're thinking about a student sort of over their school lifetime. They really should be a part of their transition planning and their IEPs. I often ask my kiddos as young as fifth grade about their input on their goals and objectives. Sometimes younger if I feel like they can handle it. Sometimes older if I feel like they can't. But I do ask them for input on their goals and objectives. Things that they want to work towards. I also ask them when you are having to fill out progress how they think they're doing. You know, I collect data on their goals and objectives but that doesn't mean that you can't ask them how you think that they're doing. I feel like they need some responsibility in that.

And again a lot of places, especially schools, tend to just make it a passive process. And we're all sort of meeting behind closed doors with the parents and other people on the team. But the student needs to be part of that team. At age 14 they should start attending their own IEP meetings. That's just sort of the suggestion. I think that that's important. I think if you can get them to start younger than 14 and they're comfortable

with that. I think it's not a bad thing to have them start before 14. And again, at age 16 the transitional plans and vocational plans should start being made. And that should be part of their IEPs. So I think the other important thing about an actual IEP is that I think parents and children. Again, the student need to understand that there are no IEPs or 594s in college. You can get accommodations under a 504 in college but you can't. But the school does not have to follow an IEP and the school does not have to follow a 504. You can get the accommodations. Other critical piece is if your student is going off to college. That they need to be able to seek out the accommodations in college. College doesn't come, an administrator doesn't come running up to you and say oh, I notice you have a 504. How can we help you? It's really a big change and the student has to seek that out.

I think that students need to be prepared to do that before they get to college. I think that is something that should start their freshman year in high school. Of how to seek out accommodations. How to advocate for themselves. How to ask for what they need. Those are all goals and objectives that could be worked on during those high school years. So that a high school student feels more confident. So, the next part which you know. I pulled a quote out. I just thought, again, it was important because I think it's about sort of the way you're thinking. It should be realized that on a student's 18th birthday the system changes from being entitled to certain rights and privileges to a system of eligibility. So whether you're eligible or not. If you can choose whether you take. Whether you take responsibility for wanting those services or for using those services. But again, it's not necessarily a privilege but more an eligibility issue. I think it's also critical to understand this last part of this first bullet. It can be difficult upon the funding for certain organizations for those students to receive the services that they either are wanting or needing or seeking out. Depending on the area you're in there can be years long waiting lists for services after the age of 18. So it's critical to be thinking about what those services might look like or might be needed now while the student is in high school. So that they can be prepared to try to get those or to be put on the

waiting list. Or to know what's even out there. It's a much different system once they turn 18.

So this actually came from an Autism Speaks transition information sheet. I happen to live in the state of Connecticut so this is the. So this is information that I pulled. But I do think it's probably pretty similar in most other states. So we're gonna talk about some common struggles for the high school student. Again, this seems like it is basic information and things that everybody knows. But I think again, in thinking about the high school student we tend to stick with academic goals and objectives. I think the parents are looking for academic goals and objectives. And I think that there's a wider range that we really need to be addressing. So that our students whether they are going to transition to the workforce or transition to college. Or transition to whatever it is that they're going to be doing. The bottom sort of doesn't fall out from under them with some of the other basic skills.

So, some of the common struggles are anxiety, depression. Sort of the typical teenager things. But I think sometimes can be larger issues in students who have autism spectrum disorders and sometimes not. Definitely sensory processing difficulties, we see a lot of that. Behavioral difficulties. I think addiction is an important thing to talk about, so is mental health. Especially at this age. Any kind of drugs or video games. You know, video game addiction I think is really becoming a prominent thing. Screen time, those types of things I think are important. Abuse physical and emotional, bullying, language difficulties, sleep issues, medications. If you have a high school student who's taking medications. How to manage those medications. If they're going to transition into college or the workforce or not wanting to live at home. They're going to be able to need to know how to manage their own medication. Sometimes that comes easy and sometimes they need help in training.

So again, that's one of those areas that you could really be looking at. Executive functioning, some organizational time management types of skills. Deciding what you want to do. What do you want to be when you grow up? Guess what? You're almost grown up so we probably have to decide what that's going to be and what that's going to look like. So, going off to college or getting a job. Where do you want to have a job? What does it take to apply for a job? What does it take to apply for college? If you're gonna go off to college taking an SAT or and ACT test. Any of those types of things and again. You don't want to stress out your high school student but you also need them to be thinking about these things. Because four years is a very short time if your high school student only stays in high school for those four years. Even if they stay in till 21. It's still a very short time to sort of plan for all of these things.

I think independent living skills is also another important one. And this one I bring up because again. Looking at this list you can think oh, these are really basic things and these are things I already know. I saw a news segment probably last summer, maybe six months ago. And they were talking about adulting classes for millennials. And I found this very interesting because I thought that's what an occupational therapist does. Whoever was running the adulting class was not an occupational therapist. I was like this is like, I mean perfect. We should be making millions off of this because this is what we teach people to do everyday. People are not, students are not learning that necessarily in high school. And then they're signing up for these courses in college or right after college. So that they can learn how to balance a checkbook so they can learn how to budget correctly. So they can learn how to grocery shop and do laundry and cook certain foods. That is all part of what occupational therapy is. And that goes back to my initial slides about what is occupational therapy? When you say that everybody goes oh, I totally know what that is and we know what we're doing. But there are people out there that are teaching adulting classes. That's what occupational therapy is. So I think that it's important to look at in a high school student. I think it's important to look at in any student that you were working with in that school setting.

So again, that's why I have some of these struggles listed even though they're probably things that you already know.

Friendships and relationships are key. Having a life balance. I think this is another one of those things that people talk about all the time. And when I see these things on TV and news segments I think that's what OT is. How to balance fun and academics and studying and sleeping and hanging out with friends. And needing to make meals and having to pay your bills. All of that life balance, that can be really hard for a lot of people. I think definitely for our kiddos that are on the spectrum. It can be even harder. I think it's something that needs to be addressed. I think it's something that probably needs to start in middle school in all honesty. But definitely would be valuable to start in high school. Self awareness I find is another really big one. Sort of being aware of yourself and your needs.

This goes on to self advocacy especially if your student is going off to college or even transitioning into the workforce. How to speak up for yourself. How to look for services. How to ask for help. How to know something is wrong and what you should do when it is wrong. I think that these things are all critical. I think that some of our students need this step by step analysis and how that works. So I do think that these things are important. Interviewing skills, what do you do when you go on an interview? What questions might be asked of you? The other pieces are job training, resume writing, volunteering.

I actually, this is an interesting one again too. Which seems like it would be basic information, making phone calls. I think making phone calls is critical. We are in a tech world where people are Snapchatting and Whatsapping and Instagramming and Facebooking and texting. How many people are making phone calls these days? I think that that is another critical piece. If you are going to go for a job interview or you have a college interview and somebody calls you. You need to be able to return the

message. It sounds like it's a small things, it really is not. Especially not in the age of tech. I think it's much larger than people realize. I think those You Tube videos that you see of teenagers trying to learn how to use a rotary phone are proof that our phone skills are rather lacking this day and age. So again, I think that that's a really important thing. How to take a message. Even if you're not on the phone if somebody gives you a message. How to take a message and write it down and pass it on to another person. There's a lot of steps that are involved in that. I think car maintenance is always a good thing but if you have a flat tire. You need air in your tires, radiator overheats. If you're working on independence with your student or being able to drive. I think car maintenance is a very important piece of that.

So we're gonna talk a little bit more about OT and Autism Spectrum Disorder. And what occupational therapy can do to help. There is a tip sheet that can be found on AOTA.org that has some information about living with autism at the high school years. It's a pretty small little sheet. I think they were just trying to keep it to just one or two pages. But I think it's kind of a good starting off place. You can definitely look that up on AOTA if you want to check that out. I pulled another quote from a Vox article that I read which I thought was interesting. Because I think I knew this but I hadn't thought of this perspective. And I think it's an important one. And again, where occupational therapist come into play. So the doctor is saying that we kind of make the assumption that high schools are getting students ready for college. That's not their job, they're not really. They are getting high school students ready to graduate from high school. We all kind of know that but to hear it I was like yep, you're right.

So we wonder why our students sometimes can fall apart when they go out into the real world or they don't know what they want to do. Or they fall apart in college because high school isn't preparing them for that. High school's preparing them to get through their academic classes and to graduate. Not how to sort of live life beyond high school. And I think this is a critical critical critical piece for students who are on

the spectrum. So again I just pulled this quote 'cause I thought it's nothing I didn't already know. But the perspective I think was interesting and I really feel like this doctor is right. We really have to start thinking, especially for our students with autism. Any student really, how to transition them out of high school and what that's going to look like for them.

So these are just talking about some things that OT's can support. I think if you're listening in on this and you're not an OT. I think that this is, this is. I'm sorry, these are things that anybody can support. Going to their own IEP meetings, we've talked about that previously. Working on independent living skills, life skills, organization, time management. I think these are huge, huge, huge for our students. Asking for help, advocating for yourself. Campus visits, even role playing. Like what would college really be like? It's different when you're visiting and you're walking around and everything's pretty. And you don't have to get to class on time or hand in a paper. So even a little bit of role playing or role modeling can be a really good thing there. So, again we're gonna talk about something that seems obvious but I think the perspective is interesting.

So this slide is sort of about handwriting. And that when you have high school students handwriting should no longer be the focus. To me that seems like that makes complete and total sense. I'm like yeah, okay. Of course not, I mean. You know, I feel like handwriting is one of those things that by the time you're in high school it kind of is what it is. So you have to work with ideas and strategies in the student. But a lot of times I'll get from teachers for kids that are 14, 15, 16, 17. Oh, they're not keeping their words in the lines. They're writing too big. They're writing is messy. Well, you know I think sometimes with sort of the other service providers or the school support or the staff. They see OT as handwriting. So I think a lot of times what happens is around fifth or sixth grade people kind of start thinking OT isn't needed anymore. Because the child doesn't need handwriting help anymore. And my point to that is especially a child on

the autism spectrum really still needs that support and help through occupational therapy. Probably not so much in the handwriting area but in a lot of other areas that we just talked about. So I think that it's important to get people around us to understand what occupational therapy really is. Which is going back to my initial slide. Even though it seems like basic information I can tell you 90% of the referrals I get in high school have something to do with handwriting. So I think it's just important that people are aware that OT is a lot more than just handwriting.

Handwriting is definitely important. It should be part of the focus but the focus should really be shifting to other skills. And assistive technology is one of those things. Again, that is something that can be used for the student that has poor handwriting. But even being able to understand how to use voice to text or word prediction or writing apps. How to use all of that. How to use it on your phone. How to use that on your computer. How to use that on someone else's computer. How to use that on someone else. All of those things I think are really important. I actually have my middle school students if their parents will allow it. I have them bring in their phones and we work on their phones in OT. Just how the whole thing works. How an Apple phone works. How an Android phone works. That there's differences between operating systems. There's differences between phones. What if you need to make an emergency phone call? What if you don't have service? What if you don't have a wifi connection? All of those things are really critical and sometimes they need to be taught discretely. Not everybody picks them up immediately and panic sets in if you don't know how something works and you need help. So I think that these things are important. And sometimes I think we also make the assumption that because kids are so busy on their screens. That they know everything that their phone or their tablet or whatever. They know what it's able to do. And a lot of students don't. A lot of students know how to play a video game or Minecraft or Facetime somebody. But they don't know the other features of their tablets or their phones. I think in the age of technology this is something that's critical. And that there are ways that they can be used for other

things. Such as assignments, you know Google Classroom and things like that. So we do think that that's important.

So just sort of generally talking about OT in high school. The services can continue to be group or individual. There's some other things that may be important. We sort of talked about most of these. Money management is another huge one. We just sort of give our kids money, you know. And expect them to figure out that they're gonna know when they go to the store how to budget things or what to buy. Or what brand might be best or 32 ounces versus 12 ounces or whatever it is. We just kind of assume that kids are going to pick up along in their life and not every kid does. So I think that it's important.

One of my biggest ones is emergency skills. You would be surprised how many students don't know their parents first and last names. Or don't know their address or don't know their phone number. Don't know simple or basic first aid. Even really how to put a Band-Aid on. I had a 19 year old student of mine ask me what to do if he was feeling sick one day and threw up in the bathroom. He was like I don't know what to do after I throw up. So we kind of went through the steps of that. But those kind of emergency first aid skills. I think that those are important and sometimes they need to be taught discretely. So I think that that's important to keep in mind. So I just sort of said my next slide that I just put up here. But it might be important or it might take a little bit longer for the student on the spectrum to learn these skills. Or they might need some more structure or they might need it broken down in different ways. So I think it's important to recognize that. There are a ton of interventions and ways that you can address these types of things. There's motor based role play. You can do some video modeling. Some visual models.

Real life experiences I think are always also important. Even if you have students who are not in a life skills type of class. But are doing life skills type of things. Anytime you

can take a field trip or practice it in real life. Or find a kitchen and cook something, I say do it. It's easy to talk about, hard to. Sometimes hard to put into practice. And they need practice so I think that that's important. Sometimes working in a group can be great. Sometimes working in a group, not so much. A lot of times I'll do things with the speech pathologist and we do things together in a social skills kind of way. At the same time trying to teach some life skills.

So I just listed a few interventions and resources. I think these, again, are all things we know. But sometimes when you're listening to these presentations. You're like oh, I've never heard of that. That sounds really cool, I'm gonna look that up. Sometimes it's just a matter of just didn't know so I tried to put a few on here. I think you'll use what you have so that's why I have You Tube on here. You know the high school crowd, at least the high school crowd that I work with. All about You Tube. If I can find a You Tube video on proper hygiene showering in the morning. I'm like here, let me show you because they're much more apt to watch that than they are to listen to me. So I have no problem, see nothing wrong with using the resources that are out there. And that are interesting for the student. I think at this point in time you have to be making sure that your students are interested in what you're saying to them and what you're talking about.

There's The Center on Secondary Education for Students with Autism Spectrum Disorders. That's kind of a helpful resource that you can look into too. There's a whole bunch of assessments when we talk about evaluation and assessing students, especially at this age. Sometimes the students started to age out or there's not a lot. So I try to list just a few. A lot of them are structures towards career. Career types of things or transitioning types of things. But CIPSI profile they still make an adult adolescent profile which I think is an important one. And then there's some other career ones listed on here. You know, I still think that the visual motor piece and the sensory integration piece are very important for our students. Especially if you're

talking about transitioning to college or transitioning into the workforce. The sensory piece is important. We all know if you want to go to a big school you might have a big lecture which could be really loud. How are you going to be with the sounds? How are you going to be with not getting distracted from what the professor is saying? If you want to work in the garden shop in your local town. How are you going to be with being outside and the birds chirping? Or if you're going to work in the mall. How are you going to be with lots of noises and people coming and going? Sometimes those are things that we just automatically assume people think about or a student think about and they don't.

So we're also gonna talk about transitioning to college. So I sort of in talking about kids in high school. You know, it's really transitioning to college or transitioning into the workforce. And those are my hopes for all students. And I think it's a matter of asking what it is that they want to do. Do you want to go to college? Again, what do you want to be when you grow up? So I think having those open and honest conversations with your students can really help drive your plan of service. It gets a little bit tricky because parents do get involved and parents usually have their opinions on what they want their son or daughter to do or to be. And some parents are more flexible than others if that really comes to light or not. So, definitely there's that parents piece in there too. But I think it's important that you make sure you're having conversations with your students. About what it is that they really want to do.

Again, in the first bullet here about college being a right, it's not a right but a privilege. Again, it was like one of those things where I'm like oh, I knew that but oh. When I hear somebody say it, I'm like oh yeah. You know you're kind of right, like you. You know in my mind I'm thinking what comes after high school? College. That is not the case for everybody. And that's okay and we need to make sure that we know that and that we're understanding that. And that we're planning the best that we can for our students. I think it's important for parents and students to understand that IEP's don't

exist in college. So it's really and it really should be up to the student. Like mom and dad can't be calling everyday to make sure that, you know. Little Junior is getting what he needs. It really has to be up to the student. And that can be a very hard transition for parents and for students. So I think it's one of those very critical things that really needs to stay focused on. And again, with the goals and objectives that you're writing. I think that those need to be part of the goals and objectives.

So, the other piece that I find interesting. Not interesting but I just think is important is that if your student is transitioning to college and need some 504 accommodations. They need to be able to provide the documentation and then advocate for themselves. So, I think it's important that if you know your student is transitioning to college and you're helping them look up what the college needs. They usually have like a student services or students with disabilities services office, where that is. Again, what documentation is needed? Does that need to be signed by a doctor? Like where does that come from and how can they get it? They can start working on those things before they go off to college. So I think that that's something that's important. I think the other piece is that they're responsible for their progress. Yeah, that makes sense. If you're kind of going off into the world or you're going off to college. You have to be responsible for yourself and that is another thing I think that sometimes has to be taught. I sometimes get ahead of myself with the slides.

But another point is is that not all students will pursue a college education. I believe, I don't want to misquote myself. I did read something about the number of students on the spectrum that go to college. And the number, if I remember correctly is not that high. So I think it's important to think about transitioning out of high school. You can have a huge sense of feeling of loss because a lot of your supports are removed. Your friends are moving on. They're doing different things. Everybody's sort of doing different things but the expectation of independence has quadrupled. And I think that that could be really hard for some of our students. And really important to talk about

and address. I think that that's something that is critical enough to start talking about even freshman year of high school. So that your students are prepared. I think it's important that parents are aware of the same thing. A lot of times I'm in some parent groups. And a lot of times they talk about sort of the loss of support. And help and resources that they received once their child is out of high school.

So again, it's critical to begin doing planning for that early. Part of the reason it's critical to plan for that early is that there can be years long waiting lists for supports and services. So again, this is not one of those things of the services and support, the student just gets. You have to actively go out and seek those and then sometimes you have to be on a waiting list for those. I think it's critical for your student to know that. And to know how to keep checking on the waiting list or whatever it is that they might need. Again, it's a large area. I think OT's could really address and it's not doing it for the student but it's teaching the student how to do it for themselves. That is where I think it becomes critical.

So, again talking about sort of the bottom falling out. Although I hate to say it that way. But sort of like the change from high school to the workforce or to college. I think that's why sometimes it's hard for parents and even sometimes for students. Where freshman year you're like ha, you know. I understand that those academic, those academic goals are important. But we need to also start looking at some other things like money management or being able to use the phone. That's kind of a hard thing sometimes for parents and students to hear and even sometimes teachers and staff. But I think it's critical and again. Those things are lacking and the proof is in the pudding. Where millennials are looking for adulting classes. So these are, you know, sort of neuro typical people who are struggling with adulting. So can you imagine our poor kiddos who are on the spectrum that might have a harder time than that. So I think it's important to recognize.

So we're gonna sort of switch gears now and talk about research and methods. And sort of the trend in Autism Spectrum Disorder research and some of the methods. Here's the interesting thing. It's sort of the way that a lot of this presentation culminated is I'm always looking for new research and interesting information on the student with autism in high school. It is extremely hard to find, let me tell you. Unless I'm looking in the wrong places and if I am please somebody let me know. I'll have my contact information at the end of this presentation. I would love to know where this information is hiding. There is a ton of information on transitioning and college and going out into the workforce. There's a ton of information on early intervention and young school-age children. Not so much so if you're talking about a high school student. It's much harder to come by and again. It sort of makes the leap from like a young child or like an elementary school-age child to transitioning. Transitioning to work or to college. But there's nothing or there's not as much when it comes to just the high school student. So, right now there's a lot of research being done around social engagement and social skills. That's really the core of an Autism Spectrum Disorder. So it would make sense that there would be a lot of research in those areas. The understandable thing about research is, this kind of research. Is that the sample size is usually small. And there's just so many variables in the individual people that it's hard to replicate the studies. And so that's why sometimes the evidence isn't as strong as it could be because it's very hard to replicate.

There's a lot of research being done around gender identity which I think is super cool. I have a lot of students that either feel like they have transitioned from being a he to a she. I have a lot of students that actually are going by the pronoun they. So I think that this is a large area that really needs to continue to be looked at. There's also always research around new treatment options and things like that. So, the first bullet here I've already talked about. It's hard to find research that is just about the high school student.

And so I think and to my third bullet down here. There is also, it's even harder to find research that is specific to occupational therapy and the high school student. Very hard to find. Again, if you know of somewhere and I have completely missed the boat on this. I would love to know because it's been a hard search. And even to try to find some advanced information about occupational therapy and the high school student, it's not easy.

So, the first research we're gonna talk about is medications. So last, this is sort of research from 2019 'cause we're only 23 days into 2020. So, you might be listening to this on a different day but the recording of this presentation was the middle of January. So that's why I'm saying that. There have been two medication trials that are being done. And both involve altering the hormone vasopressin for increased communication. So one suppresses the hormone, the other increases the amount of the hormone. And there's evidence that people who have autism produce too much or too little vasopressin. Which is, hence, why they're having these medical trials for that. But in general there is a lack of research when it comes to adolescents with autism and medications. Again, there's a lot of fascinating things going on. It's hard to really find concrete evidence, especially long term. And understandably why for those reasons that we talked about a few slides back. There's a gender identity research going on and again. This is one of those areas that really interests me. I find it very fascinating. I think there's a lot going on. They're looking at a link between autism and transgender and nonbinary individuals.

Interestingly enough Dr. Stagg who's been doing some research in 2019. Show that there was more gender identity prevalency in people who were female at birth. So I find that interesting. Also the fact that there is an under diagnosis of autism in females that complicate the issue. Again, this is an area that I'm really curious about. So I hope that they continue with this research and come up with some conclusions. Here's another area where I think OT's can jump right in and it's an area that is overlooked. There's no

evidence based guidelines for fitness to drive. Which I don't know, there's a lot of people on the road. So sometimes that worries me but okay. So, there's no evidence based guideline. So I find that interesting. Clearly kind of makes sense. Teens with ASD or ADHD make more errors when they're driving. A lot of my students that I see don't drive, have no interest in driving. But again, even if your students don't have interest in driving. They need to then know how to take public transportation. What if the bus is late? How do you take the bus? How much does it cost? Do you need to buy a card? Are you gonna take the subway? Any kind of public transportation, those things are important. If you have a student that is interested in driving I think that this is another area where OT's could really be sort of jumping in and talking about it and helping and teaching. So again, I think that that's another important area.

There's been some research being done at UCLA which is they're talking about treatment approaches. And it's interesting because they have three options sort of to see if the therapy is working. So after, I think it's three months worth of time. They continue the same therapy that they've been doing. They can increase the amount of the same therapy or switch therapy. And it's to see which one is the greatest benefit to the child. And I think this is interesting because we always talk about should we continue? Do we discontinue? Do they need more? Do they need less? I think this research is interesting because I think it might answer some of those questions.

There's a lot of complications with research. Small sample sizes make sense. Hard to replicate, again makes sense. We've talked about that. Lack of diversity, race, socio-economic and gender. So those things it's all hard to replicate the research. You know, even I think we're talking about like the diagnosis in girls. and it being harder to identify. So a lot of the research is male heavy. So I think that that's an important thing to pay attention to.

So I want to talk quickly about an occupational therapist role in research. What can we do? Begin the research, we need to sort of jump right in. Even if you're not an

occupational therapist I think that there just needs to be more research done. Research is difficult to do. I completely understand and get that. But there is not a lot out there. Especially when it comes to just doing the high school student. I think apply to join in on current research projects. Share information, collaborate with other OT's or just other service providers. I think that that's a really important thing. You know, there's a lot of things that I would like to see. I could give you a long list of research. You know, things that would be nice to research. But again, I understand that that takes funding and time and you have to set things up and sample sizes and all of that. But I think as occupational therapists or any kind of clinician. It's important to continue to try to develop questions that can be tested and gain ideas from your current work with high school students. I find that sort of the type of treatment and the treatment options are an important area that I would really encourage people to look at. But I think just sort of exploring that and then being able to connect with other service providers. Especially that are working with high school students would be a great thing.

So, there are some research studies that have gone on recently. I try not to do anything after like 2013 or I mean before 2013. But they did a study in 2016 on the sensory experiences for kids on the autism spectrum. And what they found was that many of the students report sensory issues. I think that's a critical area that occupational therapist could be working on with the high school student. How to deal with those sensory issues? Because sort of real life you're gonna kind of have to go out there and do things. And maybe going to the grocery store later at night where there's not so many people or whatever it is. I think that we have to keep working on those sensory things. Again, the research found that all students reported sensory issues. Some reported that it effected their classroom performance and others did not. I think if you are talking to your students you need to candidly ask them well. How does that make you feel? And what ideas do you have about it? I often ask my students if you could have a perfect classroom design what would that look like? And you get some really good answers and some really good information about what would help them to be

more comfortable learning. I think that that's an important piece when you are talking about college, students who are going back to college. Where they're going to have to sit in a lecture hall or in a classroom and listen to a professor. I think that those are important.

So, the study about the sensory processing. I think it opens the doors for many more research questions and opportunities. Sensory integration is still a big one in high school. Sometimes I think throughout many of the students lives. And I think again that's one of those areas that is critical and important. And again, there's not a lot of research out there or at least I wasn't able to find it. And you know, I've been looking for quite some time. Ever since I really started working with this population I've really been trying to get my hands on some information. And again, the information seems to be either very difficult to find or sparse.

So I have now listed the references that I used in this presentation. But I think they're also good references to use for just getting some more information. Or if you are working with students that are in high school. Autism Speaks, let me go back to the last slide here. Autism Speaks have, they have like two I believe like really big packets on sort of the transition process. From high school into either the workforce or college. That might be a really good resource for your students or for your parents. Again, when you're just looking at the high school student there's not a lot of information. And I think part of that is because the information just is what it is. But I think part of that is because we sort of jump from elementary to middle school into what do you want to do with the rest of your life? So I think that it's, again, an important area to kind of keep looking at. So, again these were just some of the research articles that I pulled. It's some information on OATA and that can be helpful. They're not really doing anything currently or they haven't. Nobody's published anything currently through OATA that has to do with occupational therapy and the high school student. So, again these are just the references that I used during this presentation.

And here at the end, we've come to the end of the presentation. And I would really like to thank you all for listening in. I hope you found some of the information useful. And you can take it back and apply it to what you're doing. Here's my email address. Again, if you... This is one of those areas that I care deeply about and I feel like there's not a lot of information on. If you certainly know of information. Or again, I've completely missed the boat I would love to know. Because I think it's an important topic and I think that it's really a population that we need to continue to serve. I also think that I see a lot of things. Even in high schools or transitioning schools that are outside of the public school. There's a lot of people running sort of like life skills types of programs. And they don't have an occupational therapist involved at all and I wonder why. You know, they have these whole schools and they have all of these people involved. And they have a recreational coach and art therapist and this and that and the other. But there's not an occupational therapist onboard. And I wonder why that is. I wonder if they are not able to find one or if they are interested in one or going back to the very first slide. If they're not sure what occupational therapy is. But I find that occupational therapy can really be critical at that age for those reasons that we've talked about through this whole presentation. So again, I would really just like to thank you all for listening in. And you can contact me if you have any questions or comments or ideas. And I really appreciate your time. I hope you have a wonderful day.

So we have a few questions. So the first question is do you have any tips for goal, oops. That would be the second question but that's okay. Do you have any tips for goal writing with this population?

And I would say I feel like the most important tip for goal writing with this population is to think about not only academic goals but also non academic goals. And again, that's something that we talked about earlier that can be really really hard for parents and staff to understand. But I think you have to put it, frame it in the sense that oh, you know. Little Johnny's going to be graduating and I really want to make sure that not

only is he prepared and knows $E=mc^2$. But that he also knows how to go grocery shopping for himself. So I think if you frame it that way where it's like yes, I hear you and I understand that the academics are important. But I also understand that him being able to be independent is important too. I think a lot of parents are accepting of that. So my tips for goal writing are I usually put in a goal that references something academically that they're working on. And that also references some sort of life skill or independent skill.

This next question is do you have any suggestions for working with difficult parents?

So, I think that goes along the same lines with goal writing. I try to explain to parents what I do. Again, I think you could take these slides that we initially had about what occupational therapy is. And make sure that parents understand what occupational therapy is. That it's not just about handwriting and typing and making sure that their work is neat and legible. That is certainly very important but there are other things that also need to be worked on. Which would be some of the life skills and the independent living. Now sometimes you get a parent who will say my kids a freshman in high school. Why do they need to be working on this right now? They're gonna be living with me until their 40 or whatever it is. But I think the important part is that, you know. What I always say to a parent is yeah, you know. Johnny might be staying with you but I'm sure that you want him to have some independence in cooking or doing the laundry. Or wouldn't it really be great if he could help you out at home and he could do the vacuuming. Or he could go to the grocery store for you. Or I frame it in sort of whatever their everyday routines are. And hopefully that their everyday routines are not taking care of their child until they're 40 or 50 or however old they are. But that they do want their child to have some sense of independence and ability to do some things on their own. That doesn't mean everything. Maybe that doesn't mean never living with mom and dad. But that they are able to do things and to help out. I think the other piece that I try to point out is it usually makes people feel good when they're part of a

group or a part of a family. So if you even think about your students socializing. It usually, it feels good if you're part of a group and you're part of a group that you understand and understands you and you know what to do. It's the same thing with a family dynamic. It's important that they're part of the family. And it makes them feel good when they can contribute something too. And at this age I ask my students what is it that you want to do? And when we're having the discussion with their parents I said say to their parents. Here are their priorities for themselves and here are your priorities for your child. Let's see how we can match those up. And a lot of times you will get a parent to be more accommodating if they see that you were trying to work with them and their student. And then sometimes you just have those parents that are super difficult and they want what they want and that's how it's gonna go. And I usually just try to work within that framework of coming up with ideas and things that they can do. Or I'll take something that they've already said. So, if they're like well. I know my kid's gonna be at home with me but they never clean up their plate after dinner. I try to jump in with oh, well. Are they helping you cook? And maybe cooking might be a fun thing that you guys could do together. Or maybe they could help you buy the groceries. Then sort of throw in those life skills that way about money management or some cooking skills or some independent living skills. So sometimes I'll really just sit back and not say much and listen to what the parent is saying. Especially about the child at home and come up with things like that. I sometimes do ask parents the question of oh, what's Johnny doing at home? Or how's it going at home? Or tell me about your routines at home. And sometimes you can glean an idea from that. That sort of helps to ease the difficulty and it's not easy for parents. It's their babies, they're letting them go, they're flying the coop. They have high expectations for them like everybody does as a parent. So I think we have to be understanding of that and it's not easy, it's not easy on a good day. So, I think we just have to be mindful of that and then try to work with what the parent has as the vision for their child as well.

Thanks so much everybody, have a great day.

- [Fawn Carson] Thank you so much Marina for a great talk today. I hope everyone has a great rest of the day. You join us again on Continued and OccupationalTherapy.com. Thanks everyone.