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>> Can you all hear me?

I'm checking... I can hear an echo.

>> Andrea Taliaferro: I couldn't hear an echo.

>> Yes, I hear an echo.

>> Can you hear me?

>> Andrea Taliaferro: Yes, I can hear.

>> Sorry, Andrea.

>> Andrea Taliaferro: I didn't hear an echo the first time, though.

>> All right, we're going to go ahead and get started and I'm going to go ahead and have the opportunity to learn from Andrea Taliaferro. I mentioned you in the webinar we just have. How long have you collaborated with CED?

>> Andrea Taliaferro: Yeah, I've been at WVU eight years, so eight years I've had a collaborative relationship with the CED.

>> That's great.

I'm going to give a... [echoing]...

So Andrea is an associate professor in the department of coaching and teaching studies here at WVU.

She received her BS in kinesiology and physical education from James Madison University in 2000, a master's in 2002 and Ph.D. Those are from the University of Virginia.

And so what we're happy that she decided to focus on... [echoing]... but is greatly needed, in my opinion.

Andrea has [echoing]...

>> Andrea Taliaferro: Yeah, got a few names, so that's a great name.

>> Lesley Cottrell: So various projects she's worked on, a lot of productivity including book chapters, presentations with the state, pretty much a leader in this area, both statewide and national, so we're very fortunate to have her this month. And based on the slides, everyone can see, she's looking at psychosocial and environmental determinants of physical activity in select populations.

With that, I'm going to turn it over to Andrea Taliaferro, but remember you can put your questions in chat. And Andrea, I'll track those. It's tough to see that.

At the end we'll leave a few minutes for people to ask questions.

In the meantime, please mute your phone and we'll get started.

>> Andrea Taliaferro: Thank you so much, and thank you for having me today and I appreciate everybody joining as well. Today I wanted to take some time to just discuss with you some of my research, but some research as well looking at psychosocial and environmental determinants of physical activity in populations of individuals with disabilities.

As Leslie shared my background and experience is up there, but really what I wanted to share is that prior to starting my Ph.D. I taught general P. E. for a year in Virginia and then I spent six years teaching adaptive physical education in three different school systems in Virginia. So really my research interests and experience really does stem from my time as an adaptive physical educator and general physical educator in the public schools.

What I wanted to do today was share with you some research in the area of minimizing health disparities through inclusive physical activity, and specifically I'll be talking about three areas in which I researched. The first is teacher self-efficacy toward teaching individuals with disabilities. The second looks at teacher instructor and coach preparation, students with disabilities and athletes with disabilities, and community-based physical activity. And the third one focuses on barriers and facilitators to inclusion in school and community-based physical activities.

All right, let me forward.

So, like I said, during my time teaching, I really became apparent to me that the success of inclusion of students with disabilities in physical education was related to the attitudes of the

teachers. What I was finding was that teachers who had more -- or higher attitude and better attitudes towards inclusion really put more effort toward inclusion of students with disabilities.

So, my interest in this area of teacher self-efficacy really began during that time. And up to the point where I started my Ph.D. there had been quite a few studies looking at physical education, teachers' attitudes towards students with disabilities, but the problem with the studies is they were mainly atheoretical. They looked at attitudes and confidence but not really from a theoretical standpoint.

So, I decided that I wanted to investigate this concept but from the framework of self-efficacy theory. I'm sure many of you are familiar with self-efficacy theory, just a quick overview for those who aren't. Self-efficacy theory, basically is this study looking at a person's beliefs in their capabilities to successfully perform a task. And self-efficacy is situation and context specific. According to Bandura, there are four sources of self-efficacy, and through these sources we gain information about our self-efficacy in a specific context. So the first is mastery experiences. These are individual experiences and prior experiences performing a task. And these are the most influential set of self-efficacy experiences that there are.

The second is vicarious experiences. Vicarious experiences are when you observe somebody performing a similar task or somebody with similar experience or skills performing a task, and then you make judgment of your abilities in relation to their success or their -- or how unsuccessful they were.

In terms of social persuasion, this is feedback you gain from other individuals about your abilities. And then physiological states are how you feel physiologically when performing a task. If you're nervous, happy or excited, for example.

What I really liked about self-efficacy theory in particular looking at inclusion of students with disabilities is that the theory states that those with higher self-efficacy are more likely to persist when they're faced with challenges and more likely to also overcome challenges.

So I was interested in studying this, but unfortunately at that time there was no instrument to actually investigate teacher self-efficacy. So for my dissertation I undertook the validation of an instrument to look at inclusion of students with autism. And the purpose of the study was to determine the reliability and validity of that developed instrument. It included five sub-scales. The first looked at self-efficacy beliefs towards inclusion of students with autism. And the second sub-scale looked at the different sources of self-efficacy. So, how successful were individuals' prior mastery experiences, including students with autism, what have they seen other people do and how successful were other people they observed, what had people told them about their abilities, for example and so on.

The third sub-scale looked at teacher behaviors, how frequently or often they had performed these behaviors when including students with disabilities, things like modifying equipment or modifying their communication.

And then also perceived challenges. So how successful were they or how much of a challenge did they find different things? Self-efficacy would say the self-efficacy perceived fewer challenges and actually are more likely to have done the behavior.

And then a scale looking at demographic factors.

And thankfully, that all came out valid and reliable, because I was able to use it in future research and it's been used by quite a few individuals now in quite a few different countries, the resulting instrument. For example, one study that I did here at WVU, we were looking at the self-efficacy beliefs of pre-service physical educators towards inclusion, and really looking at if a combination of coursework in adaptive physical education and hands-on practicum would influence their self-efficacy levels.

So, in this study we were looking at, again, if their participation in adapted course could improve self-efficacy beliefs of students with disabilities over time. We investigated beliefs in relation to four disability types, autism, intellectual disabilities, physical disabilities and visual impairments.

We used repeated measures design using convenience sampling of intact groups. And we surveyed the preservice physical education teacher education students between two courses. So course 1 is a pre-major adapted PE survey course, all students and senior level APE course. The students in course 2 have previously completed course 1. And both of these students participate in an on-campus practicum as part of their course, which Leslie referred to before as the Friday program tore Friday clinic in which we bring students with disabilities on to campus. Each semester we bring about 80-90 students with disabilities on to campus and the students in these two courses work with the students in both the gym and the pool.

We use two different instruments to collect the data. And we surveyed students in the first week of class about mid-way through the semester and about halfway through the practicum, and in Week 15 of class.

And results found that students' self-efficacy beliefs significantly improved across time for all four of the disability types. So from the beginning of the semester to the end of the semester, we saw significant improvements in student self-efficacy toward including students with autism, intellectual disabilities, physical disabilities and visual impairments. The only significant difference between courses were autism in time one. Interestingly in looking at data from time one, students in the pre-major course had significantly higher self-efficacy beliefs toward including students with autism than those in course 2. And that's an interesting finding. You would think students with more experience should have higher self-efficacy beliefs, but actually this can somewhat be explained or in agreement with self-efficacy theory. Self-efficacy theory states if you don't have experience at a task, you're likely to originally overestimate your abilities in those areas. And it's possible that students in the pre-major course, many of whom have never worked with students with disabilities or even taught any students before that may have overestimated their abilities at the beginning of the semester, and then eventually perhaps their self-efficacy beliefs became more realistic as they gained that mastery experience throughout the semester.

So continuing in teacher education, similar to that research, there is much recent research that shows -- if I can get this to go forward -- there we go. Sorry about that.

Much research shows that hands-on experiences and practicum and adapted P. E. are essential course components within undergraduate teacher education programs. However, the prom in looking at all the research out there is that there are no two practicum experiences that are alike.

So while we see that it is often the case a lot of programs have on-campus practicum, some programs have off-campus practicum, programs like ours, our students work with 10-15 students with different disabilities but other practicum programs it's not unusual to see them paired up one-to-one.

So basically what we see in looking at research on adapted practicum, they're offering students with exposure rather than fostering the development of teaching or coping skills, that attitudes can widely vary based on the quantity and quality of the practicum experience, and there really is to date no consensus on the scope of practicum, the structure, design or purpose of APE practicum within undergraduate PETE programs.

So to dive into this topic a little more in teacher preparation, I undertook a study with a colleague here where we looked at Delphi investigation to determine essential characteristics of effective undergraduate physical education -- sorry, adapted physical education practicum.

Our participants in here -- let's see if I can make it bigger. It's not going to let me. I' talk through it.

Participants included 24 identified experts in the field of APE.

In round 1 experts were asked to respond to a prompt, open ended prompt and the prompt asked them to identify one essential characteristic of an -- sorry, one essential characteristic of an effective PE practicum. We originally received 70 recommendations from Round 1 of characteristics of effective adaptive PE practicum. Round 2 and 3 the same participants rated each of the items in importance and feasibility on 7-point scales.

After Round 3 we ran the data and there were 47 items after Round 3 that were rated above a 5.0, which you can see on the chart in the middle.

Sorry, never mind, go back.

In the middle, a scatter plot with importance on one side and feasibility on the other. At this point we decided that any item under 5 we weren't going to move forward in the study, and 5.0 on importance scale represented moderately important. And on the feasibility scale it represented probably feasible.

So we really wanted items both important and feasible to implement in undergraduate adapted PE practicum.

We ran a thematic analysis on the resulting 47 items rated above 5.0 on both scales and came up with a few themes. The first one being context. The second was teaching and learning activities. The third theme was outcomes and soft skills and the fourth theme was evaluation of instructor performance.
And with these remaining 47 items, our intention was to create an inventory that could be used to evaluate adapted PE practicum with undergraduate PE programs.

I'll take you through a few items here on the resulting inventory. Basically our idea with this inventory is not necessarily to look at if it's "yes" or "no," does the program have this in place or not, but to what degree do they have this component in place.

So the first theme again is context, and under context we have items looking at program organization. So does the program provide opportunities for college students to learn through trial and error in a safe, supportive environment, recommended minimum of 30 hours of contact with individuals with disabilities. And multiple practicum experience provided over the course of the undergraduate program, not just a single experience.

Program setting is a sub-theme items such as does the practicum program provide direct interaction with and observation of practicing APE teachers, does it provide experience in inclusive general physical education environments. Is there direct interaction with and teaching learners with disabilities, and opportunities for observation of teachers, implementing lessons, modifying activities and engaging with participants.

The third sub-theme under context is learner characteristics. And these really look at opportunities to work with learners of a variety of disabilities and a variety of ages.

The second theme teaching and learning activities had a few sub-themes as well. The first was assessment. So does the practicum provide opportunities for students to experience conducting assessments that are appropriate for physical activity and education? Do they develop IEPs based on their assessment data? And do they assess and analyze the results?

For example, under sub-theme of planning, experience with planning, basically, writing lesson plans, designing and implementing lesson plans meant to address individual and unique needs, and developing and implementing developmentally appropriate programming that is sequential.

Under skill centered instruction, some items include observing and teaching a diverse selection of physical activities and sports, and performing a task analysis with respect to loco-motor and manipulative skills. Does the practicum provide pre-service teachers with opportunities to provide developmentally appropriate feedback, the use of effective teaching practices and experience managing and motivating learner behaviors.

Part 3, the third theme is outcomes or soft skills. These really kind of look at opportunities for professional development and reflection and communication, as well as collaboration with other service providers.

And then the last one, evaluation of instructor performance looks at if students within the practicum are receiving -- and teachers within the practicum, are receiving constructive feedback and supervision during their teaching in the practicum.

And I thought with this in our next plan, for this instrument, is actually to go and start assessing and having others assess their university practicum, so that we can get a good idea what is going on across the U.S. when it comes to adapted PE practicum undergraduate physical education teacher education programs.

So, area 2, the next area -- I'm sorry, area 3, actually, really looks at barriers and facilitators to the community-based adapted physical activity.

So, I want to talk a little about a study they did a few years ago here in West Virginia. It actually was funded -- thank you -- through the CED. One of my students wrote up a graduate student grant to receive money to conduct this research. And the purpose of this study was to identify barriers, facilitators and needs influencing physical activity participation of adults with intellectual disabilities within the framework of a social ecological model.

During the study we took a qualitative approach. We collected data using surveys and guided focus groups with both individuals, adults with intellectual disabilities and their primary caregivers. Participants included six adults with intellectual disability, ages 23-38, and primary caregiver, mothers, six females, ages 40-70 and drew from two different metropolitan areas in the state of West Virginia.

Some of the results when we looked at barriers, we found three categories. We found a lot of organizational barriers, individual constraints and external influences. For example, under organizational barriers, a lot of organizations in the area, the biggest issue really was resources. Funding, a lot came down to funding. Some opportunities existed because of funding participants were restricted that they could only participate in one or two programs a year due to funding.

Information dissemination was actually found to be another big barrier. It was challenging for individuals with individuals and parents to find information. Even when the information existed, the channels to distribute that information really were challenging. So a lot of the parents and the adults with intellectual disabilities discussed that when they were school age and in school, they received a lot of that information on physical activity programs in the community home from school. They received flyers. They received announcements from the school. But since they no longer were in school, they no longer had that channel or that avenue for information dissemination to learn about programs. There were some policies that were restrictive. For example, many of the adults with intellectual disabilities stated that when they were younger they had participated in many different physical activities but as they got older, a lot of

organizations had age limits or age restrictions on activities, so they kind of aged out of those activities and there was no replacement activity as they got older. And then ease of access, especially in our area and in our state, sometimes it was quite a distance to get to the existing physical activity programs and transportation was an issue as well.

Under individual constraints, motivation and skill of participants of individuals with intellectual disabilities was a big barrier. Many were motivated to try and participate but because of the thing like reliance on others for transportation or others, including parents, to help find and identify physical activities and wellness programs for them, that became a barrier. And time and work constraints actually was a very big barrier as well. All of the adults with intellectual disabilities in our studies worked, so many said they would like to participate in additional activities but they had to check on their work schedule or figure it out around their workday, which became a constraint.

In terms of external influences, caregiver consideration really came into play. A lot of the caregivers really noted that they really promoted physical activity for their children, for the adults with intellectual disabilities, but because of constraints of the caregiver they were kind of limited sometimes in options, including time constraints. Many caregivers worked, so they could only transport their children to activity programs outside of the workday. Many of them had other children and other responsibilities, so they had to make decisions on how to get each of their children to physical activity programs.

Sometimes health of the caregiver became a barrier. For example, there was one mother who participated who said she and her child, an adult with an intellectual disability, used to enjoy swimming and they went swimming a lot, every weak, but she developed a shoulder injury and she could no longer go swimming, so because of that, her child also no longer went swimming either.

Safety limitations were a concern, and some were extremely true safety limitations, medical considerations that needed to come into play, but interestingly some safety limitations were perceived safety limitations. For example, there was one adult with an intellectual disability who was Siding in one room -- sitting in one room talking about her and the caregiver in the next room and she was saying how much she encouraged physical activity for her child, every day she was encouraging her to use the treadmill and they signed up for a bunch of physical activity opportunities and she wanted her to do more physical activity, but the meanwhile the child was communicating, the adult with intellectual disability, was communicating her mother told her not to do physical activity and not to run and jump because she didn't want her to get hurt. So the message sent to the child was different than the message that the parent perceived that she was communicating to her child.

And then imposed choice of activity. Many caregivers said, well, my child probably doesn't really enjoy this activity but because I do it, I make him or her do it as we, so some parents said you know, the only time I get to work out is if I bring my child with me to the gym, so because of that they have to go to the gym with me and work out and use the treadmill as well even though they don't like it very much, because that's what I wanted to do.

In looking at facilitators, and there were quite a few of them, the parents and the caregivers were really champions for their children, for the adults with intellectual disabilities. They fought to make sure that they were included in physical activity. They really fought to find available options for their children.

And other facilitators were camaraderie. The participants with intellectual disabilities loved being around each other. They had gone to school with each other and participated in a lot of programs together and they found the camaraderie through participating in physical activity and wellness programs. And through some needs and ideals that were expressed. For future physical activity program considerations. So the first was family program involvement. That programs really needed to consider how to involve families and not just participants with disabilities in their programs. For example, one parent expressed, when I take my child to a physical activity program they get their physical activity but I don't, because I'm sitting on the side watching. So sometimes they had to make a choice between their physical activity or their child's. Some suggestions were programs consider how to involve families whether at the same time or in separate activity. Some improved programmatic structure, particularly in terms of communication and organization, and in programmatic support. Many adults with intellectual disabilities expressed they needed additional support to participate in some of the programs, in particularly inclusive programs, whether that was additional prompting or physical support or assistance changing in the locker room, for example, that the provided support would really be useful to improve their opportunities for physical activity.

In comparing the results back to the social ecological model, what we found were the barriers and facilitators to physical activity that we identified applied to transcended and interacted across all levels of the social ecological model. But in agreement with a lot of prior research, the barriers and facilitators that most impacted physical activity for adults with intellectual disabilities were found to be at the organizational level.

So, it's not going to let me zoom in. I'm not sure why. I apologize. But at the organizational level, while the other barriers existed, there were ways to overcome those barriers, and adults with intellectual disabilities and parents had expressed ways to overcome those barriers but the organizational level barriers were really the ones restricting participation in physical activity. For example, things like limited resources and restricted participation rules and policies, problems with dissemination of information, and age appropriateness of some programs.

So some individuals said, you know, my child really liked participating in the soccer program but as she became older, you know, they brought in clowns and balloons every week and it wasn't age appropriate for somebody in her 30s, so we stopped that practice.

So a lot of reasons individuals with disabilities were stopping participation in a lot of the programs were barriers at the organizational level.

Further investigating barriers and facilitators, there are a few other barriers that exist that are found in the research related to community-based physical activity programs. The first one is lack of knowledge and training of instructors. So when we think about community-based physical activity programs, sometimes these programs, like Little League and soccer, gymnastic programs, many times they're run by individuals who don't have a background necessarily in teaching or coaching. Many times they're run by volunteers here in the Morgantown area we have a lot of programs run by coaches and instructors that are college students, and they may not have the knowledge and training on how to work with individuals with disabilities.

Many times because of that lack of knowledge and training, there is fear or concern of liability of the program leader, the parent and the child. The parent isn't sure the instructor or coach knows how to work with their child with a disability safely and successfully, they probably are more likely to reconsider signing their child up for that sport or activity. And of course lack of appropriate programs further compound the issue.

So I worked with colleagues here, and the purpose of this research that we did was to identify and systematically address the barriers to physical activity for individuals with disabilities in ways that target their sources of self-efficacy. In the model that we proposed was called -- entitled the "Empowerment Model." It is a tiered continuum of training support and programming. And the aim here is to move individuals from a direct level of training support and programming down to an indirect and eventually to an independent level, if possible.

There are three continuums. So in the training continuum, direct level of support would mean direct training of staff and instructors within physical activity programs. We term these strategies success modules, but training modules to train individuals on how to include participants with disabilities. Indirect level of training would look like an individual who is trained, who we have turned a mentor or helping hand, and that person would attend the program and help to provide some feedback to the instructors or the staff members to help improve inclusion of participants with disabilities.

And on the independent level, we would hope that eventually staff and instructors would be able to move down to more reflective teaching in which they're able to become aware of training needs and seek out training in those areas.

On the support continuum, direct level of support would provide support to the child or participant within a physical activity program, indirect level would provide support to an instructor of the program, and then independent level hopefully we'd be able to move the child down to independent level of participation and move the instructor down to kind of a consult basis where they can seek out the resources and help when needed.

On a programming standpoint, the continuum ranges from specialized programming, programming geared for individuals with disabilities, down to reverse inclusion programs where we had a program that was basically geared toward individuals with disabilities but we bring in individuals without disabilities to participate in programs as well, to an independent level in

which individuals with disabilities are included in the typically existing community-based programming..

Now, the key with this continuum is that the levels of training, support and programming can be mixed and matched across the continuum.

For example, you can have an instance where staff of a particular program, like gymnastic program, might receive direct training on how to include students with disabilities, and then a paid mentor or support person goes to that gymnastics class and provides support to the child, and that's run within an inclusive community-based gymnastics program. Or you might see support where a trained individual goes to co-teach or support the instructor within an adaptive aquatics program, a specialized program for people with disabilities in which an individual who is trained goes and provide feedback to the instructors.

So, we've done quite a bit of work on this module and we have a few projects running off of it. One project we put the model to work in was a grant I funded for three years by the National Inclusion Project.

And this grant was a partnership between our Lifetime Activities Programs here at WVU and, of course, the National Inclusion Project. Our Lifetime Activities Programs are community-based physical activity programs that are operated by WVU's College of Physical Activity and Sports Sciences. These are open to anybody in the community. Per year, about an average of 125 different classes, dance to Taekwondo to swimming, and average of 2,000 participants. Prior to the National Inclusion Project, the participation of individuals with disabilities in these programs had been limit. The director was aware of two participants across the programs who had identified disabilities.

So, in thinking about why we didn't have a larger percentage of individuals with disabilities participating in these existing programs, we sat down and kind of did a bit of a needs assessment and came up with these particular issues. The first was limited inclusive community-based physical activity opportunities, lack of awareness in information dissemination. A lack of support necessary for participation. And a lack of staff training.

So we decided to implement the Empowerment Model within the Lifetime Activities Programs with the support of the National Inclusion Project. The programs that we decided to target were the most well-attended children's programs. Swimming lessons, basic gymnastics, and the national youth sport program, summer sport camp.

The project goals were that all LAP, Lifetime Activities Programs, staff and instructors in those three targeted programs would be trained on working with individuals with disabilities. We would also train and hire mentors, and these are individuals with some sort of background in adapted physical activity, and they would be hired to provide support to participants with disabilities and instructors within the programs. Often what this ended up looking like was a trained individual would attend the gymnastics program or swimming program with a participant with a disability to provide them and other participants extra support when necessary and sometimes it looked more like the mentor being kind of a second teacher within

the group to give a kind of a higher teacher-to-student ratio. And the last goal is improve promotional materials to highlight inclusive aspect of the Lifetime Activities Programs.

So 2015 was our first year. And during this year we found that we were able to include the percentage of participants with disabilities in our programs from less than 1% prior to the partnership to about 7.7% in the summer program and about 12.9% of participants in the fall programs. During 2015, in the summer and fall, we had 12 unique participants with disabilities who filled 24 registration slots and we were able to train 100% of the staff within those three targeted programs.

In 2016 we were able to increase participation. We went from 12 unique participants to 23 and they filled 36 registration slots. Many signed up for more than one activity.

We had between 5.6 to 25% of the participants in gymnastics, had a disability. 11.8 to 16.7% in swimming and 8.6% of participants in NYSP summer camp had a disability in the second year. This year we had ongoing mentor support, but we also were able to have increased awareness, marketing and communication strategies, including social media.

In 2017, we, again, increased participation, although we didn't have quite as many. We went 23 to 22. They filled 46 registration slots. Parents were becoming aware that instructors were trained and knew how to include students with disabilities within the programs. So we found that we had about 11.7 to 21% gymnastics, 10 to 13% in swimming and 10% of participants in NYSP summer camp had disabilities in 2017.

At the end of each program we would solicit parent feedback and a written survey. And this is -- these are some examples here of parent feedback.

Things that kind of warm your heart a little bit, like the second one. My son always wanted to take a gymnastics class but never could due to his disabilities. Now due to the inclusion project he can do it and feel included.

Other feedback dealt with increasing children's confidence and making them feel proud about themselves for being included among kids without disabilities.

And more feedback. Parents really came to appreciate the support. They really came to establish with the parents and the participants, relationships with the mentors and instructors. Many instructors and mentors have continued to work year after year and really develop relationships with participants and parents. But parents -- this feedback was also given by parents of children without disabilities who really noted it meant a lot to have an integrated program that promotes awareness and acceptance.

And this was actually my favorite one. I hated this question, but we were required to ask this question by our funding agency. Did you know prior to enrolling that children with disabilities were included in Lifetime Activities Programs?

And we got a response from one parent on the survey that said, no, I've not seen any kids with disabilities swimming at the same time with the other kids.

In this particular class, this person's child was enrolled in, there are six kids with disabilities participating in the inclusive swimming classes during that time.

So to me, the fact that a parent of a child without a disability doesn't notice that there's any kids with disabilities participating means that the support -- that inclusion is being done well. There's enough support and training of the staff so that everybody is participating and challenged at their own level within the program.

Next project that we're continuing to implement, the Empowerment Model within, is a grant that I was fortunate to recently have funded with colleagues at James Madison University and Bridgewater University, both in Virginia. And this was funded by the Virginia Board for People with Disabilities, and again it aims to implement the Empowerment Model. Our grants has three kind of goals and three strands. The first strand is training. So providing basically constructing and providing online training modules for staff and instructors within community-based programs in the Shenandoah Valley.

The second strand of support, the grant aims to provide direct and indirect support including equipment to our partner organizations within the Shenandoah Valley of Virginia. And then the third strand is the programming strand. And in order to fill in the gaps and run a continuum of programming from self-contained all the way to inclusive programs, we have formed the Shenandoah Valley Inclusive Wellness Coalition, and the coalition is a group of 70 members right now, comprising organizations within the Shenandoah Valley, mainly fitness, recreation and wellness organizations, as well as individuals with disabilities and family members of individuals with disabilities, also teachers, instructors and therapist, and their goal is to enhance inclusive community-based program opportunities in the Shenandoah Valley.

So currently we're just wrapping up here with one of the grants. We have most of the training modules done. We're about to pilot the training modules here and getting partner organizations on board for direct programming going into year two. We're again going to evaluate here the effectiveness of the Empowerment Model.

And then lastly, this is kind of a different project I've undertaken here in the past about three years, but this project was aimed to kind of counter one of the issues that we often see in inclusion with physical activity and sport, which is resources and equipment.

A lot of times we see barriers like funding, financial considerations, including the increased cost of specialized equipment and assistive technology, and many times individuals are unaware of the available assistive technology resources, especially within a physical activity setting.

So, one solution that I have explored is a university school partnership. School university partnership is defined as collaborative venture across preschool through 12 in

college/university communities as vehicles for the discovery and sharing of knowledge that shapes educator leadership and best practice.

So this school university partnership is actually between here at WVU and high school robotics team from a town in New Jersey. Their name is the Pascack Pioneers, a robotics team from the high school I graduated from in New Jersey. This came about a few years ago when I was visiting where I grew up, visiting my parents and there was an article in the local paper talking about the Pascack Pioneers, first robotics team and they just won this international -- or national tournament for robotics. And included was their little video online that I went to watch and they had created for the competition this robot that shot basketballs. And the first thought that went through my mind is, that's really cool, I need that in our Friday adaptive PE program. I called up the school and vice principal and had a nice conversation. He knows what I do, but I explained I ran a practicum program for about 80 kids with disabilities and saw what the robotics team put together and thought it would be cool if we could work together to get some sort of assistive technology for use in our adaptive practicum. I worked with the robotics team about three years. These kids are amazing, amazing they know what to do. Ta were able to develop a robot. A robot that kicks a soccer ball. They developed different prototypes and pilot tested different prototypes and last October they delivered a robot for use in our Friday program. The current robot has push button activation switch but over the summer they created more switches to activate the robot and they're working on an i-gee system as well.

I'm going to share a video of the project. Hopefully the sound comes through. Hopefully it loads. Or not...

Hmm...

Let's try that again.

Okay. It doesn't seem to want to work today. I apologize. The video is going to take you through the different steps. If you're interested in watching the video it's the video they put together for promotional opportunities. I'm happy to send that link to you for the video.

So this relationship is continuing. They're looking to build more switches. They're also looking to develop more robots, but what is most exciting to me is they're looking to build this robot into a kit that can be made available to other programs and other universities across the U.S. as well as schools and other physical activity programs so they can put this together at low cost.

The cool thing about it as well is there are many first robotics team across the U.S. There's one Morgantown they didn't know about it. They are actually on board and service the robot for us. So it's possible for ideas like this to be shared and implemented across the U.S. and this robotics team, the Pascack Pioneers are into developing ideas and sharing resources so that other teams can replicate this robot for use in their communities.

And that's all I had for today. So I'm happy to answer any questions and open it up to questions.

Any questions?

>> Andrea, how you feel about recruiting and getting the word out about opportunities?

>> Andrea Taliaferro: Could you repeat that one more time? I got disconnected a bit.

>> How do you go about recruiting and getting the word out about opportunities?

>> Andrea Taliaferro: Particularly with the Lifetime Activities Programs?
>> Yeah.

>> Andrea Taliaferro: We've done a lot through social media on the college website. I do send stuff home with participants in our Friday program, so information does go home through the school. The programs that we focused on are mainly for school age participants. We do need to expand it, I think, to adult activities, because there are a bunch of those as well. But we found that the school has been a useful avenue for that, as well as social media, and honestly the surprisingly -- maybe the thing we found that was most useful, really was word of mouth. Kind of year one it took us a bit to get -- I hate to say it, but to get parents to trust us as use their kids as guinea pigs in year one. We didn't have as many participants as we initially thought we would and we actually had one particular participant enroll and after that the floodgates opened, a lot of people were interested. What wound up, this particular parent posted information about our program on her website and on a website for parents of children with autism. One parent said, oh, when so and so signs her kid up, the rest of us sign ours up for things.

Word spread into the community and kind of the parent groups, but I will say that I think information dissemination is still a barrier and still an issue. Both participants with and without disabilities actually within our programs.

>> Lesley Cottrell: Andrea, you hear me?

>> Andrea Taliaferro: Yes.

>> Lesley Cottrell: [echoing]

What would you recommend in terms of family types of resources to encourage [echoing]

>> Andrea Taliaferro: It's a good question. Hopefully I can answer your question. If not, please redirect me. I think some things that are particularly needed in terms of health and

wellness and to get in touch with families and get them involved are programs that do include parents and family members without disabilities as well as their family member with a disability.

You know, one study that we had done, a lot of parents expressed, as I mentioned, that they didn't get their physical activity because they spent all of their time running their children around and taking their child to physical activity and wellness programs, and then the parents wind up sitting and watching, and sometimes they appreciated the break, they wish there had been an opportunity for them to participate as well, either alongside their child or maybe like in a parent group where they could do some yoga or other fitness activities. We also found in the Lifetime Activities Programs that a lot of the families that enroll kids with disabilities also enroll children without disabilities, and they have mentioned that these are the only programs in which their children can participate alongside each other in the programs.

So I would say that strategies really have to focus on activities that are available to participants with disabilities as well as their family members. Which also helps with the marketing, because then you have two potential markets that you're trying to advertise to for the activities. Does that answer your question a little bit?

>> Lesley Cottrell: It does. Thank you.

>> Andrea Taliaferro: Of course.

>> Lesley Cottrell: I'm trying not to... there's an echo. So can you read the chat?

Okay. I think it's there.

>> Andrea Taliaferro: I see the chat, but that's all I see. I didn't actually see anything.

>> Lesley Cottrell: It hasn't popped up.

>> Andrea Taliaferro: Oh, it hasn't popped up yet.

>> Lesley Cottrell: Sorry about this. I was just going to say a state developed plan for physical education, are your efforts included in that?

>> Andrea Taliaferro: Our state also is the first to have a statewide physical activity plan that does include quite a bit of information on including individuals with disabilities. In terms of physical education plan, I have not necessarily been heavily involved in that, unfortunately, and I think our state is maybe a little behind when it comes to adapted physical education

within the schools in terms of training. I don't think we're unusual in terms of states, but there are currently 14 states that have a separate teacher certification for adapted physical education, meaning that you have to have a statewide certification and adapted PE not just in physical education to teach adaptive PE. West Virginia is not a state with that. And unfortunately a lot of teacher training programs only have very limited -- have a very limited coursework and preparation in adaptive PE.

So I don't know that it's heavily reflected in the state physical education plan and curriculum. Hopefully we can get more of an emphasis in it, but I think awareness is one of the things that does need to be improved.

I am personally only aware -- and I could be totally off on this, but I am only aware of two adapted PE specialists within the state of West Virginia. So I think that perhaps our lack of focus on it is potentially reflective as a lack of focus on the plan as well.

>> Lesley Cottrell: Wow. Okay. Any other questions?

All right. Well, Andrea, this has been helpful. I know if there's a way we can help... [echoing]... let us know, we would be really interested.

>> Andrea Taliaferro: Thank you so much. Same on this end, in's anything I can help with, don't hesitate to reach out.

>> Lesley Cottrell: Definitely. Thank you so much.

>> Andrea Taliaferro: It's been a great day. Thank you so much.

>> Lesley Cottrell: You too.

>> Andrea Taliaferro: Thank you.