Matt Brandenburg:
You're listening to everyday evidence presented by the American Occupational Therapy Association helping the occupational therapy practitioner apply evidence to practice. Here's your host, Matt Brandenburg. Today we are joined by Emily Kringle. Emily, thank you so much for sharing your time and being on the show with us today. Of course, I'm happy to be here. Yes, I've been looking forward to our conversation. I know you are an assistant professor at the University of Minnesota where you direct the Disability and Wellness Laboratory. And today we're gonna be discussing your work on developing the able and now duoABLE or is it pronounced doable project. We say duoABLE in my lab. DuoABLE. That might be a tongue twister for us today but our listeners can follow along with how well our pronunciation is. But these are both behavioral activation-based interventions that aim to reduce post-stroke sedentary behavior through engagement in meaningful daily activities. How did you first become interested in studying behavioral activation-based interventions like ABLE and duoABLE?

Emily Kringle

I guess I didn't necessarily become interested in behavioral activation-based interventions first. So back when I was practicing I worked in inpatient rehabilitation here in the Twin Cities for about five years after I graduated from OT school. And while I was practicing I got really interested in to what degree my patients were returning to their fully active and socially engaged lifestyles after they returned home from inpatient rehab after having a stroke. And so, that was really the kind of driving force behind understanding how my patients were getting back to those active lifestyles. And I started looking into some of the literature and really struggled to find data that helped me understand that and further interventions that might help me as a clinician to support that transition and that return to those active lifestyles. So, I first became interested in this area from my clinical experience and then went on to pursue research training at the University of Pittsburgh where I was first introduced to behavioral activation-based interventions.

And I know we're gonna be talking a little bit later about kind of what exactly that means and where it started. But it was during my time at the University of Pittsburgh that I really got interested in understanding sedentary behavior after stroke and looking at how we could use behavioral activation-based interventions to help our patients or our clients reduce their sedentary behavior. I love that, I love that. And I think that really speaks to the type of clinician you are and that you were inspired to pursue further education to better help the people that you work with. Which is no small task to undertake. It's been quite the journey. And forgive me, Emily, I'm talking about ABLE and duoABLE and we haven't talked about what it stands for. Can you kind of introduce us to what does ABLE stand for? Yeah. So ABLE is... You thought duoABLE was a tongue twister but ABLE might be a little bit more of a tongue twister. So ABLE stands for Activating Behavior for Lasting Engagement. And it is it's the acronym for that long phrase that really refers to the intervention that I designed while I was a graduate student at Pitt in collaboration with my dissertation committee.

So that was Elizabeth Skidmore, and Grace Campbell, Michael McCue, and Lauren Terhorst all at the University of Pittsburgh. As we were designing this intervention we thought, oh, we need a name for it and we came up with ABLE. Some of the kind of next steps are another version of this approach that we're or that we're testing right now. In a research study applied the duoABLE kind of version of this approach which refers to working with two participants at a time a person with stroke and their caregiver. So duoABLE is the dyadic version of ABLE and ABLE is the individual version of this approach.

Matt Brandenburg

I love that. And thank you for describing the difference for us. Now, I feel confident that me and the listeners can follow along. So this is an intervention that you developed while studying at Pitt and now you're researching it further at University of Minnesota. How would you describe sedentary behavior? What are kind of common results of sedentary behavior and why is this something that needs to be explored and researched further?

Emily Kringle

Sedentary behavior has a very specific definition in the research literature. There was a consensus statement published in 2017 by a consortium of researchers that study physical activity and sedentary behavior. And historically, it's been sort of conceptualized or measured as absence of physical activity but that's not the case. So, this consensus statement that was published in 2017 defines sedentary behavior as waking time when we are in a seated or reclined position and engaged in activities that require a very low level of energy expenditure. So, the metabolic equivalent less than 1.5 times our resting metabolic rate. So when I think about sedentary behavior and kind of pairing that with common occupations or activities that we do during the day I think about how much time I spend in my car driving to work, or sitting at my desk writing, or on emails, or on calls like this one. Or at the end of the day when I get home and I sit down to relax and read a good book or watch a show all of those types of activities would be considered sedentary time.

In 2018, the physical activity guidelines for Americans were updated and this was one of the first times that sedentary behavior was included that had a specific recommendation in these guidelines. And the recommendation doesn't give us a specific number to aim for. It doesn't say spend less than so many hours a day sitting or sedentary but it does say that we should try to minimize our sitting time or our sedentary time. And then in 2020, the World Health Organization updated their physical activity guidelines. And their recommendation suggests the importance of replacing sedentary time with physical activity of any intensity. So this could include light-intensity activities, it could include moderate-intensity activities, or it could include vigorous-intensity activities. And so, when we start to think about that in relation to the activities that we work with as occupational therapists, that really covers everything we do, right? That if we're replacing sedentary time with activities of any intensity most anything that our clients or patients want to work on would be included in that.

Why is it important? So sedentary behavior and the reason it's been added to these public health recommendations is that extensive periods of sedentary behavior have been associated with poor cardiovascular outcomes like hypertension poor cardiometabolic outcomes like glucose levels or insulin resistance. There's a connection between sedentary behavior and mental health. More sedentary behavior more depression more anxiety. And then specifically within kind of the stroke population, there's a connection between extended amounts of sitting time and physical functioning. If we sit more we're moving less and that can negatively affect mobility, strength, balance, coordination all those sorts of functions. Absolutely. Thank you for providing insight into that distinction of really what sedentary behavior is. I think sometimes it kind of has this reputation of just being like a couch potato and not doing anything. But the truth is like you mentioned people can be sedentary while very engaged cognitively in something.

Like driving, for example, takes a lot of awareness and attention and focus but like you mentioned it's still sedentary. Emily, how would you describe occupational therapy's role in working with people to reduce sedentary behavior? All of these public health guidelines that are recommending that we minimize or reduce sedentary behavior are suggesting that we can replace sedentary behavior or sedentary time with activity of any intensity. So, when I think about some of the goals that our clients or our patients might be working toward, I think about where those sort of align along the physical activity spectrum. And so, I think about a participant patient that wants to be able to walk their dog or wants to be able to go to a grandchild's sporting event or music events that wants to be able to shop for their own groceries or do their own cooking. Those are all activities that require at some point within the activity upright or standing time. And so, making sure as occupational therapists that we're addressing the helping our patients return to these activities.

But then also thinking about extending this into now that you can do these activities what does that look like in your daily routine and what are your habits around that? Since it's not guaranteed that once someone can do an activity that they will carry it out in a routine way in their day-to-day life. And as occupational therapists, I think that we are uniquely skilled to really to address those habits and those routines and those roles in day-to-day lives. So being aware of that kind of 24-hour activity. Those 24-hour activity patterns can really help us to define our role in this area I think.

Matt Brandenburg

Absolutely, absolutely. Those habits and routines is the crux of occupational therapy and lasting intervention and behavior change. I'm really inspired and curious by this the model that you followed of how you made observations in your practice that you believed warranted further investigation and then equipped yourself to research it and develop a whole new intervention and continue to research it.How would you recommend someone follow that same kind of model like what should a practitioner prepare before reaching out to researchers? How do they know if they should partner with researchers or what they need to do next in order to kind of investigate those observations they've made in practice?

Emily Kringle

Yeah, I love this question because it brings me back to a recommendation or an instruction that one of my faculty members made to me when I was an OT student. I had a couple of faculty members that were pretty sure that I would go on to do research and I wasn't convinced. And one of my faculty members suggested that I start by just writing down my clinical questions. So while I was practicing, I kept a notebook of questions that I had that I knew that I needed to ask to improve the care that I was providing. And it was when I started struggling to find answers to some of those questions is when I started kind of looking around to say, OK, what's my next step? I don't necessarily think that everyone's next step needs to be to learn how to do research.

Like you said partnering with researchers can be really rewarding and really important. I think that having those clinical questions reading researchers work, right? So staying up to date with research in AJOT and OTJR and rehab journals more broadly as well to find linkages with researchers and research teams that resonate with some of the questions that you have. It's possible that they've started answering those questions and that the literature or the research is in the very early stage. So, really trying to understand kind of the stage of the literature that you're looking for and that you're reading in. And then talking with researchers, I think that attending conferences and poster sessions and having opportunities to interact kind of around those presentations can be really valuable and important and lead to some conversations that can help you kind of determine what the next step might be for you.

Matt Brandenburg

 Yeah. And I love that. I think clinicians and researchers both play such an important and vital role within the profession of occupational therapy. But sometimes there's kind of a divide and it's not a purposeful divide but I think it's more the result of just not nourishing connections between the two groups. And really, like you mentioned going to a conference or researching online a topic or a clinical question can do wonders in helping people to make connections and kind of build bridges between research and clinical practice. Which hopefully will lead to better outcomes and more feasibility studies and novel interventions that can better help people engage in their meaningful occupations like your ABLE and duoABLE interventions.

Emily Kringle

Yeah. As clinical practitioners, there are sometimes ways to be involved in research studies without being the principal investigator. That in my experience so the studies that I'm running right now I have two occupational therapists who provide the ABLE intervention as part of my research team. Yeah. And my research coordinator is also an occupational therapist. The two therapists that provide the treatment in the research studies also work full-time in clinical settings outside of working for me on the study.

And so, they have really rich insights as we are kind of progressing through the research study that really, really do enrich the work that we do and start to bring together a little bit closer that research and practice setting.

Matt Brandenburg

I love that. And I love that something that's deliberate and purposeful within your research lab. It's a wonderful example. Let's dive into these interventions. We've mentioned ABLE already. We'll start with that. What is the activating behavior for lasting engagement intervention? And if you could go ahead and introduce us to kind of that first pilot feasibility study of ABLE.

Emily Kringle

When we talk about behavioral interventions we talk about the active ingredients and then we talk about the structure of the intervention. So in the ABLE intervention, we have four active ingredients. Those are activity scheduling which is where we are working with our participants to schedule a specific time for when they're going to do a specific activity. We have activity monitoring which is where we ask them to kind of keep track of their of one full day and note the times that they were sitting, the times that they were engaged in activities that they weren't sitting, kind of what they were doing while they were sitting those sorts of things.

We have self-assessment. Self-Assessment is really that how did your scheduled activity go? And we have collaborative problem-solving which is where the therapist and the client or the participant work together to make a plan for the activities that they want to do. I always, when I'm training therapists and often when I'm working with the participants, I'll say, I wanna put you in the driver's seat because you're the expert in your own life and you're the expert in your day-to-day routines. And I am here to support you and ask some probing questions to help kind of solidify your plan and make sure together that we're both comfortable with the safety of your plan. But you're in the driver's seat. You're in charge here. We do all four of those we deliver all four of those active ingredients through this global strategy. We call it the ICAN plan. And the ICAN plan walks the participants through each of those steps. ABLE is delivered over 12 intervention sessions. Each session lasts 30 minutes or so.

At the beginning of the study the first two sessions we spend time talking about what is sedentary behavior, getting to know what are the types of activities that you like to do, what are the things that you're doing less of since your stroke, and what are the things that you want to return to that that are most important to you. After we've done that, we share some of their activity monitoring data. We have them wear a small activity monitor for a week before they start the intervention and we share their data with them so that they can look together with us across the days and across the week to find out when they're most active and their least active times of the day are. And then we use the global strategy the ICAN plan in an iterative manner throughout the remaining sessions to deliver those active ingredients. So, during each session, they will I, you're going to want to they're going to identify a time during the day when they spend sitting or when they want to add more activity into their day.

C, they choose an activity. A, we call add or adapt. And this is kind of that collaborative problem-solving section where we really tangibly walk through like what step one, two, three, four. How are you going to do this activity? And within that we spend a lot of time talking about safety and collaborating on making sure that it's a plan that they're comfortable with. Work together to identify if there are any adaptations that need to be made based on their function since their stroke and if there are any resources that they need. Each session typically ends there with a plan to carry or with a instructions to carry out their plan between sessions and to do an activity monitoring log for one day between sessions. And then when we come back at the beginning of the next session then we do the N, which is notice. And we ask participants to notice what went well to notice if there are any updates and also to notice how they felt during their plan and in the hours or the day kind of around their plan.

So, we spend some time talking about how their body felt emotionally how they felt. In many cases, we hear comments that I felt more energized or I felt really successful or maybe I felt a little bit more tired, and then the next day I felt a little bit less tired more energy. So, we want to really connect the value of moving more with how they're feeling and what the outcomes of that are as well. Did I answer the question? Yes, you absolutely did. I love hearing you talk about how this intervention is designed. And it sounds very logical. It sounds like it hits on all aspects of behavior change and helps people really learn about the why, the what, and the how to change behavior and incorporate new habits and routines into their lifestyle.

Matt Brandenburg

First, I wanna congratulate you 'cause on the feasibility study it was found that ABLE can be delivered safely, consistently, and maybe associated with reduction in sedentary behavior over time. And I want to ask, why are those findings really significant?

When we first start testing behavioral interventions I think that we often think oh, is it efficacious? Is it going to work for my patients better than what I currently have? And in order to ask those questions, we have to back way up and answer some really important questions to make sure that we've really well defined and refined our intervention protocols. So that way when we get to the randomized controlled trial and are asking those efficacy questions that we have a really good understanding of what exactly it is within our intervention that is potentially causing change that we're seeing. And so, in order to do that, I follow a model called the orbit model for behavioral intervention development. And so, these questions around finding that ABLE was delivered safely and consistently we're really part of what I would consider phases 1A and 1B which is defining and refining. We needed to show that ABLE was going to be safe that we weren't causing our participants harm by asking them to engage in this intervention.

And we also needed to show that we could deliver the same four active ingredients that I described a little bit ago here. We needed to show that we could consistently deliver those and that we could train other therapists to deliver those. So that way when we scale up to ask some of those questions where we need to involve more people in the study that we are able to train them so that all the participants in the study receive the same type of intervention. And then when we think longer term training future therapists to do this approach, we need to be able to train therapists in a way that they're able to deliver ABLE in a way that they'll see similar results. So that was really important for us to do some of that early-stage work. And then along with that, it was important to ask this kind of proof of concept study. Is it even possible that ABLE could be associated with reduction and sedentary behavior over time? Now, this pilot study was a single-arm study. So everybody in the study received ABLE.

That means that we can't say ABLE caused anything. We can only say that we measured sedentary behavior before they started and after they started the ABLE intervention. They received the ABLE intervention during that time period and some people saw reduction in their sitting time. We can't necessarily attribute it directly to the ABLE intervention but it was plausible and it sort of gave us the green light to be able to move forward with this approach. And we have moved forward. We are currently getting ready in the DWELL lab here at Minnesota to start recruitment for a randomized controlled trial testing the ABLE intervention against a control intervention. To answer some of that those questions about whether ABLE causes this change in a way that is more than what people would experience if they did not receive ABLE.

Matt Brandenburg

Yeah, I love that. And congratulations on beginning to prepare for that randomized controlled trial. The active ingredients and the ICAN plan aspect of ABLE sound so beneficial in promoting behavior change.

What recommendations would you give to listeners to kind of help them begin to explore and apply behavioral activation-based interventions to hopefully achieve better health outcomes for the patients, caregivers, and families that they work with?

Emily Kringle

Yeah. So, I would suggest starting by reading in the literature. I didn't develop behavioral activation itself. That began in the 1960s and 70s by Lewinsohn and colleagues. And there are some really nice reviews that are published that describe the elements of behavioral activation. Behavioral activation was initially designed to treat depression and is a well-established intervention approach that's used by psychiatrists to treat depression. And so, I don't know, Matt, if there's a place that you're able to post literature or links to recommended readings. I can send you some of those reviews. I think that's probably the best place to start at this point with learning more about behavioral activation.

Matt Brandenburg

That's wonderful. And yes, please just send them to me.

I'll make them available in the episode description.

Emily Kringle

Yeah, that sounds great. I'll send you a couple articles. And then also there are a couple of clinical manuals specifically for treating depression with this approach.

Matt Brandenburg

I love that. Thank you so much. And yeah, well, encourage listeners to check out some of that behavioral activation research and some of these reviews and studies. Could you also share a case study or clinical experience of your own of how applying the ABLE program led to beneficial physical activity and sedentary behavior outcomes?

Emily Kringle

 There are many examples. Like I mentioned, we've had quite a few participants engage in this approach. And there's one that really stands out to me someone who had had their stroke around eight months before enrolling in our study and had finished all of their therapies and was back to work. Work was spending a lot of time sitting at a desk. And they had provided also a chair at the register where the person was doing some work with. Yeah, at the register in their place of employment as well.

So, really spending a lot of time sitting and working kind of a different schedule than your kind of more traditional nine to five type of job. When my therapist first started working with this participant they did some brainstorming and the participant expressed a really strong interest in learning a little bit more about yoga. And I think what differs in this approach from maybe our traditional approach to helping people get into a new type of activity is that rather than saying, well, yeah, let's go check out like why don't you try a class or here are some yoga poses to do our first question is, well, how do you wanna learn more about this? And with this particular participant, they decided to do a little bit of reading. So they found a book or a magazine and that was the plan for the week or for the that session. And later in the week when they came back to it the participant was ready to try some of those activities at home. And so, they tried some yoga poses at home. They decided that they wanted to maybe use YouTube and look up some videos to get a better handle on it.

And so, this continued for a few sessions, and the participant kept advancing their goals related to yoga and eventually decided that they were ready to go do yoga in a public place in a class. And so, one of their plans became checking out yoga studios. And by the time we reached the end of their time with us in the study, they had signed up for and were regularly attending yoga class in the community. And that felt like a really big success to us because it suggested that when we backed out and we're no longer meeting with this participant as part of the study, that they had a social community that was supporting them in their physical activity and that they would be more likely to continue with that because they had found those resources in their community that would help them to be more active.

Matt Brandenburg

That is such an awesome example and an application. I love that first question that you open up with. How do you want to learn more about this? And that's amazing that an open question like that it might be a little intimidating or even fearful for a practitioner to ask a client and be so open and willing to be flexible with interventions and how they kind of guide a client to change behaviors.

Emily Kringle

But like you said in this example it led to them finding a whole community to continue progressing and achieving their health goals. That's such a wonderful example. That open question is a couple of things, right? It's that collaborative problem-solving. It really does challenge therapists because we do like to give suggestions, right? But what it does is it puts the client in the driver's seat. And when it's their idea and the way that they work best and the way that they learn best I think that that's when we start to see these creative and really community-oriented approaches to meeting their goals. Absolutely. That's so true. People don't always respond wonderfully to being told what to do but they love feeling empowered and encouraged to make their own decisions and make lasting changes.

Matt Brandenburg

So, I agree that's so beneficial. And I love the idea of having the patient in the driver's seat but we may need to think of a different turn because like you mentioned earlier driving is a sedentary behavior.

So maybe we wanna say that the patient is putting themselves on the treadmill or something like that. Yeah. The bicycle. There you go. They're taking the handlebars. I love that. This is such a wonderful study. And you were also awarded a research grant from the American Occupational Therapy Foundation for the duoABLE program. Could you introduce us to this study?

Emily Kringle

 You already mentioned it's more of working with patients and caregivers. So duoABLE really emerged from some of the anecdotal experiences that we had when we were delivering ABLE for the first time. I was one of the therapists providing the treatment sessions in ABLE. And I started to notice these common comments from patients as we or from participants as we progressed through the sessions. They would say, "Oh, I made sure I did my plan because you were gonna come visit me, Emily and I wanted to be able to tell you that I did it." Which on the one hand is really flattering, right? On the other hand, I'm not gonna come to your house three times a week for the rest of your life.

And we started thinking a lot about the importance of social support because that's what they were saying is having someone to be accountable to helped me stay on track to do my activities and to be more active. So, we went to the literature we started reading about social interdependence and theories of communal coping after a health event. So that's not... That's recognizing that a major medical event doesn't just affect an individual it affects the other people in their lives. And there's a potentially transformative power to working together towards shared goals. We also know that caregivers are at risk for some of the same cardiovascular outcomes and mental health outcomes that can also be addressed through physical activity or addressed in part through physical activity. And so, as we started to think about who else could both benefit from and support each other within this behavioral activation framework that led us down the path of could we deliver ABLE or a version of ABLE to people with stroke and their caregivers together.

And so, the duoABLE study is a feasibility study. It's a single-arm study meaning everybody who signs up for the study receives the intervention. They complete assessments pre-intervention and post-intervention. And we're asking some of those same early-stage development questions. We're asking about safety. We're asking about if people with stroke and their caregivers like this approach. And we're also looking at some of those proof of concept questions. Can this potentially be associated with change in sedentary behavior or activity engagement from pre to post-intervention? And one of our biggest questions I'll say in this study too is can we recruit dyads? We know that caregivers are very busy people and we know that people with stroke who are working hard to get back to their work and their hobbies and the things that they enjoy doing are also very busy people. And so, recruiting these dyads to this study together is definitely a different ball game than recruiting individual participants to a research study.

Matt Brandenburg

Absolutely. I think any time you're increasing the number of people who are receiving an intervention you're adding chances for random error. But like you mentioned, you're also increasing independence through accountability and through community really that's shared between a participant and their caregiver. What additional intervention strategies are implemented within the program and what do you really hope to explore and investigate further if there's anything additional with duoABLE?

Emily Kringle

Yeah. The main thing is that we've added an active ingredient around building social interdependence. And so, when our participants... So, both the person with stroke and the caregiver meet with the therapist together at the same time, and within the ICAN planning process sometimes they create individual plans. So we recently had to talk about yoga again we recently had a dyad where the caregiver used to go to yoga on a pretty regular basis and hadn't been since they returned home after the stroke. This caregiver created an individual plan to go to yoga but within those individual plans, we always ask the participants to indicate their partner's role.

And it goes in both directions, right? The person with stroke can absolutely support the caregiver in meeting their goals. Often that is something like they're gonna remind me to go or maybe I don't want a reminder to go but when I get home I want you to compliment me that I went and I took care of myself today. So it's really making that like other person's role explicit. We've also had partner roles that have the person with the stroke has been like, well, I could pump up the tire in your bike and if you wanted to go for a bike ride. Like there are tangible things that our participants with stroke can do to support the caregivers and their goals as well. And this goes both ways. So in the individual plans, both partners indicate the role for their partner within that plan and then sometimes they create a partner plan. So sometimes they create a plan that is around an activity that they want to do together. And for one of our couples, this became going on a daily walk. It's winter here in Minnesota so the first part of that was finding places that we can walk inside in the winter.

And then so that was kind of similar to the previous plan. Was, well, how do you wanna go learn about that? How do you wanna find places? And they arrived at a community center just up the road from their house that has a walking track. And by the end of the study, they were walking together two to three times a week even though it's cold and snowy and icy outside.

Matt Brandenburg

Yeah. That's wonderful. Another wonderful example of promoting behavior change and doing so with a true partnership. I love that emphasis of how it's not just the caregiver's duty to support the participant but it's a two-way street. And the participant can also promote and encourage habits and lifestyle changes and positivity for the caregiver. Yeah. We've got a lot of driving-related analogies going on here today. Driver's seat. Yeah, we truly do. Emily, I'm gonna ask you how can a practitioner effectively implement behavior change interventions when working with patients who are sedentary, and the bonus points if you can answer that question with another driving metaphor.

Emily Kringle

I don't know if I can get to the driving metaphor. So I think that the first thing that we need to do is understand how they're spending their full day. In the physical activity literature, we spend a lot of time talking about the 24-hour activity 24-hour physical activity behaviors. So that includes sleep and then all different types of activity. And without assessing we don't know how our participants or our patients are spending their time. And we have a lot of tools at our disposal to help us understand that. It could be as simple as asking our patients or our clients to write down just take a couple of notes on one typical day what it is that they do each hour and if they think if they feel like it's active or inactive. A lot of our clients have activity trackers built right into their phones or wearable like Fitbit, or Garmin, or Apple watch types of devices that they wear. So starting off by partnering with our clients to really understand what their full-day activity patterns are.

And then from there, working with our clients or our patients to identify times during the day when they want to be more active and when they have opportunities to be more active I think is important. Yeah, I think those are wonderful recommendations. And really, no lasting change can happen if we don't first learn someone's activity patterns. And I think that first step like you mentioned is so key in assessing and asking about it and approaching it really in the correct way. Yeah, yeah. And I think that it would be really easy to make assumptions. And I think we need to really guard against making those assumptions. What additional recommendations would you give to practitioners to really learn how to use engagement in meaningful daily activities to reduce sedentary behavior? So there's literature that suggests that activities that people enjoy are more likely to be carried out more consistently particularly as it relates to physical activity. And I think as occupational therapists that's probably not surprising to any of us.

And I think that we have validated tools pretty easily at our disposal that we can use to help brainstorm together with our participants in our studies. In my lab, we use the activity card sort to give us some structure to brainstorming. And that's often when our participants say, oh, I didn't realize that I haven't been doing that activity as much since my stroke. Or we went through that activity card sorting thing and we talked about pickleball. That's been a common one in some of my studies here. I've never done pickleball but I'm kind of interested in it. And maybe I can use this as an opportunity to learn more about it. So I think that finding ways to brainstorm with participants that are patients or clients that help to give them ideas rather than just saying, well, what do you want to do can really help kind of expand the possibilities if that sort of makes sense?

Matt Brandenburg

Absolutely. Yeah. I think that ongoing discussion and brainstorming really can get the wheels turning and these (INAUDIBLE).

And Emily, what additional resources would you recommend to our listeners who want to learn more about the topics we've discussed today?

Emily Kringle

 Yeah, I think like we talked about I'll share a couple of articles related to behavioral activation that can be included in the description. I also will share some articles around sedentary behavior. That consensus paper that I talked about that talks about what is sedentary behavior. Anything specifically related to the ABLE or duoABLE programs if practitioners wanna learn about those interventions where could they go? Yeah, there are a couple of articles that have been published on the ABLE intervention. One is in AJOT and the other one is in the journal topics in Stroke Rehab. So I'll share those with you. The duoABLE intervention is still being tested and so there aren't any publications yet about that. I would keep an eye out probably we're probably a year or so out from publishing anything related to that. So those are the two articles the original ABLE articles that I would recommend.

Matt Brandenburg

Wonderful. And we'll make sure those are available to listeners. And we've now arrived to the golden nugget segment, Emily. Our favorite question on the show if you could share one piece of knowledge or recommendation to practitioners what would you say?

Emily Kringle

 I would ask us all to remember that we have a really important role to play in promoting health through physically active lifestyles. I think that the physical activity guidelines like I mentioned earlier do point to minimizing sedentary time. And when we put it that way I think it's easy for us to say, "Oh, but we do occupation." But the thing is, we need occupation to minimize sedentary time. And I think that we have an opportunity to play a really important role with that. And I think along with that as practitioners I think we need to be really thoughtful around thinking about how we address those 24-hour routines and habits and roles. And remember that restoring someone's ability to do an activity doesn't automatically translate into the doing of the activity in daily life.

And so, working with our clients to set goals around whether it's how often they're going to do an activity or a specific time of day when they're going to do something that they enjoy can be really powerful.

Matt Brandenburg

 Absolutely. That is so well said, Emily. I wanna thank you again so much for sharing your expertise and your knowledge with us today. This is truly been valuable and a very informative conversation.

Emily Kringle

That's my pleasure. Thank you so much for having me.

Yeah, absolutely. Thanks for listening to Everyday Evidence. Tune in next time for more evidence-based practice, insights, and applications.