Avery Martin: Welcome to Health and Human Science Matters, a podcast by Colorado State University's College of Health and Human Sciences. I'm Avery Martin, co-host and digital media strategist.

Matt Hickey: And I'm Matt Hickey, Associate Dean for Research and Graduate Studies. In our college, we make it our mission to optimize human health and well-being through discovery and innovation. Don't just take our word for it. Each episode we sit down with people who fulfill that mission, our college faculty and staff.

Avery Martin: Today we're sitting down with Dr. Andy Persch, Associate Professor in the Department of Occupational Therapy at Colorado State University and Director of the Transition, Employment and Technology Lab.

Matt Hickey: Andy, welcome.

Andy Persch: Thank you, Matt. Thank you, Avery.

Avery Martin: Of course. Thank you.

Matt Hickey: We're glad to have you join us. We're looking forward to hearing both about what you do on campus and of course the bigger picture of Andy as a human being in addition to a scholar and an academic. And so we're going to start with campus. We're always interested in big questions or big problems that people pursue. So tell us a little bit about the big problems you and your team are pursuing.

Andy Persch: You bet. Thank you. So a big problem is employment of people with disabilities, or rather the unemployment or underemployment of people with disabilities. For context, children with disabilities receive special education and related services. That includes early intervention from birth to three, but then special education until age 21, and that's a substantial benefit to citizens in our country. Yet post-secondary outcomes after school outcomes for students with disabilities remain quite poor. Within the context of special education those outcomes are broadly categorized in terms of education, employment, and independent living. And so those are the outcomes that school districts are responsible for, tracking and reporting on an annual basis.

So outcomes are particularly challenging for those who have intellectual disabilities, autism, orthopedic impairments, or those who have multiple disabilities. In the context of employment, there is a 20 to 30 point gap between children with disabilities and their peers that don't have disabilities. And a specific example of that would be, say the difference between an intellectual disability, in the years immediately following high school, you'd observe something like a 39% employment rate among those with intellectual disabilities. And so it's 30 points higher for someone with a learning disability, for example, dyslexia.

And so the mission of my Transition, Employment, and Technology Lab is to improve those post-secondary employment outcomes for individuals with intellectual and developmental disabilities through the adaptation, development and deployment of assessments and interventions. And as an occupational therapists, the reason why I am interested in employment is because it's a primary area of occupation. It's a thing that occupies much of a human's life and attention. And also, employment is so strongly connected, causally connected, to things like health and socioeconomic status and quality of life. And so if we're able to move the needle unemployment, we have a high confidence that they're going to be follow-along effects.

Matt Hickey: The other dominoes start to fall if we can get at the core, right?

Avery Martin: Right.

Matt Hickey: I don't know this, but I assume that there's probably a sense of full membership of a community when one is employed as well, right?

Andy Persch: That's right. So for people with intellectual disabilities, their participation in the community and independence and their activities of daily living, their socialization, is primarily through education or employment. And when those things are absent, only about 10% of that population has any socialization or community participation, on say a weekly basis.

Matt Hickey: Yeah, my goodness. The impact is enormous, isn't it? Holy cow.

Avery Martin: Absolutely. And speaking of which, tell us an impact story. How have you seen the Transition, Employment and Technology Lab truly make a difference in someone's life?

Andy Persch: Sure. So I worked with my research partner. His name is Dr. Dennis Cleary. And at the time we were both faculty in occupational therapy at Ohio State University. So we worked...

Matt Hickey: The.

Andy Persch: The Ohio State. Yes.

Avery Martin: All caps.

Andy Persch: We worked with partners in special education. Those are the folks that are responsible for birth to age 21, and then partners in vocational rehabilitation. So those are the adult systems that are 22 plus, say, to develop the vocational fit assessment, which is an accurate person-centered measure of work-related adaptive behaviors. And this informs job placement and customized employment decision-making. Beyond working with Dr. Cleary, we partnered with a group called Project Search. This is the gold standard intervention to support transition to employment for youth with developmental disabilities, and simply what they do, in the last year of special education eligibility, so picture like a 19 or 20 year old, students complete a series of three internships in a host business.

And what that host business is or can be is quite diverse. Most of them will be in the healthcare sector or the hospitality sector, but you'll also see project search programs in retail, food service logistics. There are a lot of folks working in places like Walmart shipping and receiving and Amazon these days.

Matt Hickey: That's great.

Andy Persch: So this intensive work-based instruction, a series of three internships, has some pretty great outcomes. And over the years the project search outcomes are consistently 30 to 60 points higher than the national averages.

Avery Martin: Wow.

Andy Persch: Yeah, so very impressive. Now, Project Search needed an assessment, a tool to help them decide which internships should be used for each student and in what order. And so the vocational fit assessment fills this gap. And to make the vocational fit assessment available, we created a website called vocfit.com, and this is the knowledge translation tool that we use to get it in the hands of people. And so VocFit is a custom designed web app, and over seven years, the registered user base has grown to now 13,000 employment support professionals across North America and Europe. So on an individual level, VocFit helps to identify needs and supports the decision-making for job development and placement. And so then these benefits are not only experienced by the young adult with a disability, but their circles of support, parents, caregivers, other family members and friends.

Avery Martin: That is so cool.

Matt Hickey: It is, isn't it? And I think, correct me if I'm wrong on this, so there's a licensing or IP aspect to VocFit. So there's a marriage of occupational therapy scholarship and entrepreneurship, but both pointed in the same direction of casting as wide... Because as researchers, we often don't share this other than in our publications that have an NF 5 or 10 or 15 and big enough to have it be somebody's thesis or dissertation. But often one of the challenges is how do I have my impact scale appropriately? And you are doing that really nicely. So tell us a little bit about that.

Andy Persch: You bet. So there are definitely intellectual property complexities with this. I didn't have much insight into that until I actually started in a faculty position. I think the parallel piece of it is sustainability and commercialization. And so we do hope to commercialize VocFit in a way that helps to sustain it. We didn't create this to get rich, and to this point, we've made VocFit available for free to everyone, and that's possible through the support of the state of Ohio, the state of Colorado, and also now the National Institutes of Health.

Matt Hickey: That's great. It's neat to see it scale like that, isn't it? So I'm always interested in if you can think about... And sometimes it's a moment, an epiphany, other times it comes over a period of time, but when did the, I want to be a researcher light bulb go on in your head? And this is where we begin to invoke mentors and people that have had a significant influence on your pathway.

Andy Persch: So I trained at the bachelor's level in occupational therapy, so graduated in 2005. In 2007, our profession mandated that all future OT graduates would need to be at the master's level. And so I was at the University of Wisconsin, Milwaukee. I was the last cohort that had a choice. And so I completed my bachelor's, but also decided to stay and do a master's right away. Because I didn't want to have to always talk about why should I hire you when all these other folks have master's degrees?

So the requirements to be an occupational therapist were part of my bachelor's, which really meant that my master of science in occupational therapy was a research focused degree. So I first discovered kind of that research interests as an undergraduate at UWM in the third course of my research series, so the semester that I'm graduating. Then went on to do a master's thesis, spending most of my time in the lab and feeling and enjoying that culture. I took my master's thesis, I moved it towards a national presentation. I presented at the American Occupational Therapy Association's annual conference with the support of some mentors. And I also stayed in touch to work on moving it towards publication. And so that was a process that took about two years.

Matt Hickey: So lesson to our audience is publications don't happen overnight, right?

Avery Martin: Right.

Matt Hickey: There's a lot of work that goes into even being ready to write it.

Andy Persch: Yeah, so first submissions, couple of rounds of reviews, and then ultimately we got a rejection after a couple rounds of reviews.

Avery Martin: That's frustrating.

Andy Persch: That was pretty disappointing. So then I learned that that's not the end of the road. It's taking those reviews, making it better, finding the next journal, and then ultimately it was the second journal that accepted it. And so I was working as a school-based occupational therapist in Madison, Wisconsin. I'm on my summer break and I get the email saying, your article's been accepted for publication. Hooray. And also I'm capable of this and this could be a pretty cool way to make a living. And I might be able to contribute differently with this skillset.

Avery Martin: That's great.

Andy Persch: So the full circle piece is that I now teach the third research course in our occupational therapy doctorate.

Matt Hickey: It's just so great, Andy. I love stories like this.

Andy Persch: And so that's quite a perspective. I'm sure that when I was in that spot, my professors didn't expect me to go on to a PhD, much less secure NIH level funding. And so as I look now at the classroom, I really do try to give them all that respect because that pathway, should they choose it, is open to them and it's a pretty cool pathway.

Matt Hickey: It's so neat. And these moments are kind of special. I had the same opportunity here. I had an undergraduate mentor in an exercise physiology class who shoved me into grad school. I mean, almost literally. And I got to teach that class here for 20 years, and I never forgot him. Every time I taught that class, I thought about him. It's pretty cool. That's neat. Thank you for sharing that. Appreciate it.

Avery Martin: That is so great. If you don't mind, I wouldn't mind rewinding to the first moment that you wanted to pursue OT. What made you want to be in the realm of occupational therapy?

Andy Persch: You bet. I went to Marquette University High School in Milwaukee, Wisconsin. It's a Jesuit prep school, Marquette University. And in line with those values in your senior year, everyone takes two weeks off of school and goes to do service. And so I went to do service at Curative Rehabilitation. Really one of the great rehab centers in the country. And I spent my days in a TBI day program, and that program was run by an occupational therapist. Kind of an interesting point, my mother is a physical therapist, and so I grew up around the clinic, but I didn't know occupational therapy until that point, right at age 18. And those two weeks with that therapist and those folks changed the trajectory of my life.

I had college applications. I had applied to all my schools with an interest in law enforcement. By the time the service project came around, it's spring of my senior year, I've done all the applications, I've gotten my acceptances, but those things weren't aligned with OT. And so I had to look at the institutions, what has OT, and it was University of Wisconsin, Milwaukee. And so that led me to staying at home more or less for my OT training. And I haven't looked back.

Matt Hickey: Talk to us about your doctoral training and the transition, our recruitment efforts to get you and keep you here as part of our academic family.

Andy Persch: So kind of the pathway to CSU, I did that master's degree, and that definitely sparked the research interest. I had the opportunity to stay and do a PhD right away on a funded project, and I declined that. I knew I wanted to practice first and develop my own questions through the lens of practice. So I went to practice in the public schools in Madison, Wisconsin, but was looking at PhD programs and mentors the whole time. Ultimately, I embarked on a very deliberate plan to identify and connect with a mentor in pediatric occupational therapy. Ultimately, I connected with Dr. Jane K. Smith at the Ohio State University. She is on the Mount Rushmore of Pediatric Occupational Therapy scholarship. She writes the textbook that we use in the pediatric courses here. And so I went to Ohio State. Her interest was not transitioned to adulthood, and I had a small interest at that point in time. Her background really was much more the younger kids, the NICU, early intervention, the elementary years.

But kids get older, and at the time when I met her, she had been treating and working with kids, and those kids get older. And so she was observing that despite all the serious and good therapy and early intervention that kids were getting in childhood, those post-secondary outcomes remained poor. And so that was the kind of piece or the perspective that opened her up to my working towards this adolescent, young adult, adulthood piece of the pie. A couple other mentors have been important. Dr. Ginny Stoffel at Wisconsin, Milwaukee has definitely supported my interest in professional service and leadership. And then Dr. Brent Braveman, who is the director of rehabilitation services at MD Anderson, mentored me through that deliberate plan towards the PhD.

Matt Hickey: How did you hook up with him, just out of curiosity?

Andy Persch: So here's a couple connections then. In 2010, Ginny was the vice president, and I might get the years a little bit wrong, the vice president of the American Occupational Therapy Association. She had done her PhD in leadership. And so one of the things that she was doing with AOTA was leadership development. And so they funded a program called The Emerging Leaders Development Program. And through that, and based on her recommendation, I was matched with Brent. And then we embark on this one year process of leadership development. And a big piece of that was this pathway towards PhD.

Matt Hickey: Oh, that's great. What an opportunity. Because not many of us get that where it's a wing and a prayer sometimes, right?

Avery Martin: Yeah.

Andy Persch: It was absolutely fantastic. And so now I've been fortunate. I've been on that emerging leaders' development committee that has turned into appointed positions with AOTA and ultimately a nationally elected leadership position with what are called our Special Interest Sections. And so I chaired our Special Interest Sections council for three years, one year as chair elect, and then three years as chair. And that group is meant to provide the venue for practicing occupational therapists to engage with each other around areas of shared interest. And that really was a privilege to work with those professionals.

Matt Hickey: Wow. I'll say, my goodness. So when did you land at CSU?

Andy Persch: I landed at CSU in 2018, and so this is the start of my sixth full year here.

Avery Martin: Flies by.

Matt Hickey: We're lucky to have you. So when you're not serving in leadership positions in the AOTA or teaching or mentoring students or pursuing your scholarship, what does Andy do to have fun off campus? What does life look like outside the boundaries of CSU?

Andy Persch: Well, admittedly, employment is a primary occupation for me as well. So I do put in a lot of work, but outside of work, there things like spending time with my wife, with family, with friends, dogs. Taking those dogs to the many breweries around town, hiking, biking, paddle boarding. In the last year, I've gotten into rafting, river rafting.

Avery Martin: Oh, nice.

Andy Persch: And a key piece is Colorado sunshine. That's quite a contrast in terms of Ohio and Colorado. I love that we have 300 days of sun.

Matt Hickey: It is remarkable, isn't it? We're lucky to live out here, for sure. So I'm interested if you have a favorite moment from whitewater rafting that you might be willing to share with us.

Andy Persch: So this past summer, I did a week long trip with a number of member of our faculty, Dr. Jen Weaver on the Salmon River in Idaho. And so that was difficult to get to with the work obligations. It was a bit of a challenge to let go of work for a week and truly go off the grid. But it was lovely. And what I learned is that I can do both. I can work hard and I can also make time for these other things.

Matt Hickey: That's great.

Avery Martin: That's awesome. I feel like that's a key piece of occupational therapy too, being able to truly balance and coordinate work and life.

Andy Persch: Ideally, it is. We're not always the best at doing it for ourselves. It is a core tenant, but to the extent that we can, it is important. And I've been able to do that balance more and more.

Avery Martin: That's good.

Andy Persch: With each year of experience here in Colorado.

Matt Hickey: It's not entirely unique to the academy, of course, but being successful depends on a willingness to really work hard, right?

Avery Martin: Yeah.

Matt Hickey: We often talk about... And I don't think this is really a cliche in many ways, there's some truth to this. There are stages in academic life, for example, when you're pursuing tenure, where there's a bit of volatility and I'm uncertain. But what I love to see, of course, is folks that secure tenure and continue that trajectory of that willingness to work hard and to pour into other people and pursue your scholarship, et cetera, et cetera. The challenge here is obviously you've just articulated it. I'm on my way to the Salmon River, and you almost have to be deliberate about extracting your mind from thoughts about what's going on at work or what's my next grant I need to ride or whatever it is, and say, let me enjoy Idaho. Let me enjoy the cold water and great friends and whatever that might be. But it does take some effort, doesn't it?

Andy Persch: I can give you an example of that effort. So Dr. Patty Davies and I submitted a Department of Education grant this summer, and I was working on that grant up until the deadline in the truck as we were driving to Idaho. The grant got in. I'm happy to say that it has just gotten funded.

Matt Hickey: Congratulations.

Avery Martin: Congrats.

Andy Persch: Thank you. So that changes perspective too. When I was doing it, I'm like, why did I put this on myself? And in getting it, a piece of it is I can handle it. I probably can handle it better yet, but there really is a nice thing to feel a special piece of value. There are things that we can do that are going to make our communities and hopefully our country and the world better.

Matt Hickey: Well said.

Avery Martin: Love that.

Matt Hickey: Well said.

Avery Martin: Speaking of making the world better, dive in a little bit to VocFit. How is VocFit solving this big problem that we face?

Andy Persch: So for more than a decade now, I've said that positive post-secondary outcomes tend to result from the effort of exceptional individuals rather than exceptional systems of service. And certainly it's important to be grateful for the very good systems that we have in the US, but we can't replicate that human. And so I firmly believe that we need to figure out ways to work these valuable practices and approaches into systems. So VocFit is my attempt to share that exceptional system with the world, that I am sure that it helps to improve employment outcomes for people with intellectual developmental disabilities. And so an example of this is VocFit is now a required component of the Project Search model's fidelity tool. So you must use VocFit if you want to claim that you're being faithful to the Project Search model.

Matt Hickey: That has to be really gratifying.

Andy Persch: It is. When we started with Project Search, they were operating in approximately 200 sites across the US and the reason we got connected with them so closely was Ohio. They're based at Cincinnati Children's Hospital. We were at Ohio State. And so that was close, but not too close for us to be able to work together effectively. So now there are more than 700 project search sites around the world.

Matt Hickey: Oh, my goodness.

Avery Martin: That's incredible.

Andy Persch: All of them are expected to be using VocFit. Each of those sites is staffed by a special ed teacher and also a skills trainer or job coach. And they are working with a group of five to eight, sometimes 12 people with developmental disabilities. And so each and every year there's 3,500 to 5,000 young adults with developmental disabilities going through Project Search. And so the impact then is felt by many, by the young adults with disabilities, by their circles of support. Ultimately, I hope that we can improve their employment trajectory, improve those outcomes, and in doing so, they've found a place of employment that fits them well. And that also then is connecting them to those other outcome areas, community participation, socialization, all important parts of health.

Matt Hickey: Andy, are there common misconceptions about the work that you do? And if so, how do you respond to them?

Andy Persch: I would say that the big picture things that I've had to work through the most is whether or not I'm talking about assessment or intervention. And VocFit is a decision-making tool. And so it is kind of in this gray space. As I've moved it forward and looked for funding, I have to tailor that presentation and be very clear with what this is. I don't just apply to say NIH, so I can't just use a medical model for it. I'm applying to education, to rehab funders, to occupational therapy. So each of one of those is a little bit of a different perspective. They're all a different grant format. And so NIH 12 pages, National Institute on Disability, Independent Living Rehabilitation Research, sometimes 40 or 75 pages. So figuring out how to package those things.

And so in terms of increasing the competitiveness of my work, there was this additional layer of challenge in that my feedback was coming in these different formats and what the different funders were focused on would vary. And so it took really about four years and 25 unfunded proposals before I was at the place where I had enough feedback and I truly knew it, and that I could make the informed decisions about which way to push each one of say the weaknesses in a grant review.

Matt Hickey: Perseverance pays off.

Avery Martin: Absolutely.

Andy Persch: Yep.

Matt Hickey: Tell us a little bit about the day in the life. And we know that there is no such thing, there's no right... Every day's a little bit different, but your team, students you might have in your lab, what does a "average" day look like for Andy and his research collaborators?

Andy Persch: Well, on my first day with my mentor at the Ohio State University, Jane, she said, no day is the same. And I have found that to be true. Now, that doesn't mean that there are things or activities that aren't very much the same. So working on various research activities, it's a lot more administration than I ever anticipated. One of the pieces that maybe is a good example of that, in my PhD training, we had to write essentially an RO1 equivalent grant as kind of a milestone. And so I've written 12 pages and a good 12 pages, but that actual application, when it was all said and done, was 265 pages of budget and the administration forms. And I didn't have insight into that prior to being faculty.

So research activities, administration. I typically don't do data collection myself, although it's important for me to know what it is and what the folks are doing. I've designed those protocols. It is typically much more email or putting out fires or things that feel like fires than I want. And then it's also engaging with students. So it's my teaching prep, it's my actual teaching, the grading, working with the students in my lab.

Avery Martin: That's great. I'm interested in knowing forecasting a decade from now, five to 10 years from now, how do you see the work of you and your collaborators impacting the world moving forward?

Andy Persch: Pay it forward comes to mind. I think that really is the piece that's most important. I've been very fortunate with opportunities that have either presented themselves to me or that I've pursued. And so I want those that I work with to create and share opportunity with others. Try to leave the world in a better place than you found it. Specifically with the VocFit stuff, to continue to advance that scholarship and the reach of it, that it's more well established, it's better known. It's also very important to me that VocFit becomes sustainable outside of my research program or even myself personally. And so along the lines of commercialization and IP, that is a big piece of our future planning. And then another piece that I hope we're getting to in a decade is really translating the assessment data, that decision-making into the evidence-based practices. There are a range, a variety of good evidence-based practices to support transition to employment, maybe like VocFit, they're not all that well known.

They're kind of difficult to access, and there aren't necessarily direct links between an assessment. You do a work-related assessment you do with a person with a disability, and then use these evidence-based practices. They have, say the best effect sizes or the most potential for a positive outcome.

Matt Hickey: That's great, isn't it?

Avery Martin: Yeah.

Matt Hickey: One of the perpetual challenges for us as faculty members is how do we tell a story about the impact of our work? And within the hallowed halls of the academy, we have all kinds of funky stuff. We talk about citations or journal impact factors, or the easiest thing probably is to count dollar bills that come in from funding agency, but that never fully captures one's impact. And here we're talking about an impact on the lives of kids and young adults and for a variety of circumstances to find themselves at the margins. And we want to move those folks into the mainstream to the extent that we can. And I think you're doing fantastic work. We really appreciate it.

Avery Martin: Absolutely.

Andy Persch: Yeah, thank you. One of the challenging decision points for me is do I put my energy towards things like generating citations or do I want users who use this, and in groups of five or 10 or 12 a year? That really is an impact that I care much more about than impact factor, my H index.

Matt Hickey: Indeed. That's the real legacy.

Avery Martin: Very true.

Matt Hickey: We appreciate your time today.

Andy Persch: Yeah, you bet. I appreciate it, Matt and Avery, thanks for having me.

Matt Hickey: Of course.

Avery Martin: A lot of fun. Thank you. And that's the show. Thank you for listening to another episode of Health and Human Science Matters. If you want to learn more about our College of Health and Human Sciences, go to www.chhs.colostate.edu.

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