# Health and Human Science Matters Season 2, Episode 9: Reagan Miller

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

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 wellbeing 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. And today you're lucky enough to have Reagan Miller with us. Reagan, welcome.

Reagan Miller: Thank you so much for having me.

Matt Hickey: We're delighted to have you here. And of course, Reagan comes is one of the first, inaugural if you will, cohort of the College of Health and Human Sciences Deans Fellows. Right?

Reagan Miller: Yep.

Matt Hickey: And that fellowship year, of course has come and gone for you. We've got our second cohort that's part of that growing team right now. But of course, we're delighted to share with our listening public that you're funded on a National Institutes of Health pre-doc fellowship now, so-

Reagan Miller: That's right.

Matt Hickey: And we make that observation, because the aspiration of that program was to do exactly what you did. So I just want to, not for the last time, publicly congratulate you, and thank you for being an exemplar in that program. It's really neat.

Reagan Miller: Yeah, absolutely. And I mean it was very exciting and an honor to be a Dean's fellow and then to continue to pursue that work. So thank you so much for that introduction course.

Matt Hickey: Well, we're glad to have you as part of the team here and that's for sure.

Avery Martin: Yes, indeed.

Matt Hickey: So our goal here is to talk both about you as a person and about what do you do as a scholar. And we'll sort of blend that conversation over the next half an hour or so. But I'm going to start with the big question about big problems. So can you tell us what big problem your research addresses and what impact you hope it might make?

Reagan Miller: Yeah, absolutely. So to start with a big picture, I think a lot of us are really familiar with mindfulness. I feel like we live kind of in the mindfulness boom right now. And you might kind of see everywhere you see, okay, mindfulness can help you sleep better. It can help you feel less anxious or less depressed. And there is a ton of research that does show that, especially for adults. Research for teenagers is a little bit less, but still pretty robust there. But we know a little less about exactly how mindfulness helps you. And so that's kind of what my research focuses on. Exactly the mechanisms behind how mindfulness might help you feel less depressed, less anxious, things like that.

Matt Hickey: So the impact really strikes me as kind of a mental health one in some ways. Right?

Reagan Miller: Yeah, absolutely. I focus on mental health, also some health behaviors like sleep, physical activity, things like that. But yeah, just really understanding some of those mechanisms behind how all of those things come together.

Matt Hickey: Awesome. And this is so illustrative because when we think about our college, we often, particularly for folks that don't know us that well think, "How did those units end up together those, right?" But there's an integrated view of human health, which you really just nicely articulated, that doesn't put the mental health in sort of a silo by itself. And we don't talk about behavioral health or metabolic health or how mental health can really impact family units and communities. So there's a broader perspective that I think you've articulated nicely.

Reagan Miller: Yeah, yeah, absolutely. And I think that is a focus of the college and also my department.

Matt Hickey: It is, isn't?

Avery Martin: Absolutely.

Matt Hickey: Yes. It fits nicely within this broad vision of the college. So tell us a little bit about you. How did you get to this point? Tell us about your sort of family. Where did I grow up? Who was it or them that might have launched me on this career as a budding academician?

Reagan Miller: Yeah, so I am from Arlington, Virginia, kind of born and raised there, right outside Washington, DC. And what's funny is kind of thinking back into who am I, and maybe how did I happen upon this path, I didn't really realize it at the time, and actually not a story I don't think I've ever told before, but when I was really young, I really enjoyed writing pretty informal research reports and practicing therapy informally with my sisters.

Matt Hickey: Really?

Avery Martin: Wow.

Reagan Miller: I always wanted a dog. That was just like, woke up in the morning, that's all I thought about was I just really wanted a dog. But every year for my birthday, my mom would give me an encyclopedia of dogs, so like a dog book, but never a dog. And so I would use those encyclopedias to write reports for my family. And so, "Okay, we're at the stage in our life, so I think that a Cocker Spaniel would be really good for these specific reasons," and pull from the encyclopedias. And so it's funny because my mom still has some of those. But also in order to earn money to be able to pay for the dog, I knew that dogs had to go to the vet and eat, so I started an informal therapy practice where my sister would pay me like 25 cents a secret. I could hold her secrets. That didn't last too long. But yeah.

Matt Hickey: How fascinating. So now you have to tell me, was this just innate interest? Was there someone somewhere that you saw that you said, "I want to do that."? Where did that come from?

Reagan Miller: I honestly think in school, you do the book reports. And so I was like, "Okay, this is a goal that I want." And my mom is pretty logical and academic in a sense. And so I was like, "Okay, if I can't convince her just talking to her, maybe this report, detailing everything that people say dogs are like, might convince her to get me a dog."

Avery Martin: You were doing cited reports far before college.

Reagan Miller: Definitely not APA format, but-

Avery Martin: You had it down though.

Reagan Miller: Yeah.

Avery Martin: That's awesome.

Matt Hickey: So talk about this transition into undergrad and grad school and again, these of touching stones along the way that might have been influential for you.

Reagan Miller: Yeah, absolutely. So I more formally started to do research as an undergraduate at Virginia Tech. And so I started off my junior year in the social development lab. I was studying, majoring in psychology and minoring in statistics. And just really became interested in emotion and how parents talk to their kids about emotions. And then, so that was kind of my first touch at research and I loved it. The ability to be able to basically ask any question that you want and collect data on it and run some analyses was just, it was so much fun. I felt like I had won the lottery every time I ran SPSS, so that was really fun.

 And then after college I was a research coordinator in the emergency room at Children's Hospital down in Denver. And so that kind of gave me some exposure to trauma more in the physical sense. So broken bones, things like that. But I also began to witness how a lot of teens, especially with mental health emergencies, would come in and they could benefit from some skills to help them in the moment, take some deep breaths, calm down, regulate their emotions. And so I did also have a personal interest in mindfulness, which is kind of what I study right now, but that also kind of set me on this path and applied to CSU. They actually had the best research fit and so that's why I decided to come here.

Matt Hickey: Now we jumped from Blacksburg to Denver. So I'm just curious about how did that happen. Of all the places in the world one might end up, how did you? Was it because I wanted to be in Denver? Or was it-

Reagan Miller: I had never visited, but usually when I make decisions it just feels right. And I like the mountains, I like the outdoors. And so I applied a bunch of places and it really came down to either Richmond, Virginia or Denver. And Richmond's cool, but I think Denver's a little cooler.

Matt Hickey: [inaudible 00:08:17]

Avery Martin: Nice.

Reagan Miller: Yeah.

Matt Hickey: And then you clearly did some homework, because CSU got on your radar screen because you had an interest in pursuing graduate studies. And so you probably spent some time on Google or elsewhere, trying to figure out where do I want to go to grad school. And so tell us a little bit about how CSU sort of got on your radar screen.

Reagan Miller: Yeah, absolutely. So I am really interested in working with mostly teenagers. And honestly not many universities study mindfulness within the context of adolescence or with teenagers. And so when I first came here looking to work with Doug Coatsworth and Rachel Lucas-Thompson within my department, those people really attracted me to the program. And so CSU is kind of right at the top of the list, because they were pretty much the only people [inaudible 00:09:08] looking at that did the research I wanted to do.

Matt Hickey: Now I'm curious, was there sort of a moment as an undergrad where the thought of grad school began to emerge? Or really was it as a professional? Was it a little bit of the two? I'm interested in how you ended up sitting here in that sense of, I know I want to go get a PhD.

Reagan Miller: Yeah, so as an undergrad I thought that I'd do more of the clinical psychology route, and had been told by many professors, you can't just graduate as an undergrad with a psychology degree and start seeing clients. So I knew in some sense I had to go to graduate school. But what I really liked about the CSU program was not only the research side, but I could also still pursue some of that clinical side, because my master's is in marriage and family therapy. So it kind of was the best of both worlds.

Matt Hickey: And so the MFT program again, probably solidified, "Yeah, I really do want to sort of do this thing. I want to stick around." Right?

Reagan Miller: Yeah, yeah, absolutely. And coming for a visit here, everyone kind of felt like a family and very supportive of each other. And that's an environment that I knew that I wanted to do graduate school with it.

Matt Hickey: So if I were to ask you to reflect on mentors, people who have left their fingerprints on you intellectually, developmentally, et cetera, I was wondering if you can share a little bit.

Reagan Miller: So I definitely have to give some credit to Dr. Julie Dunsmore, who at the time was at Virginia Tech. And she ran the social development lab. And she first came to me and said, "I know that you're in this lab, but do you want to do an independent project within the lab?" And so that was my first opportunity to really do something of my own. So she was a tremendous impact on me and I don't know if I'd be doing research to the same extent if it wasn't, without her. But also getting to work with my mentors here, Rachel Lucas-Thompson and Lauren Shoemaker. I just, I can't even begin to describe to you how wonderful they are as mentors and just really try and sculpt their students in a really productive, and I feel like I can't get away from talking about attachment styles, but in a really secure functioning way.

 Rachel recently won an award for mentoring and in reading her statement as to how she's a mentor, it was crazy because that's one of the things that she put first was that she operates on a secure attachment with all of her mentees. And so it just, if I had thought about graduate school and getting to work with mentors in the way that I am now, it's better than I had imagined.

Matt Hickey: And I'm struck again that you got here without the networked opportunities of I know so and so and you go call them. There's really a level of independence here that I think is cool actually. And we tend to rely, and thank goodness for it, on those sort of networks. But I think he managed to land in a remarkably productive and intentional mentoring environment. So when you think about ... So I'm after these big problems that we sort opened with. Tell us a little bit about what you're doing now in pursuit of those big problems. What kind of scholarly activity are you up to your eyeballs in at the moment?

Reagan Miller: Yeah, so right now I'm focusing on the project funded by NIH, which is also my dissertation project and also is funded by an AES Grant here at CSU. But essentially it's looking at how we can implement mindfulness interventions with some youth who are at risk for either mental health vulnerabilities, academic vulnerabilities, behavioral. And so there's a mentoring program on campus called Campus Connections where they bring in youth from the community, they're matched with a college student mentor.

Matt Hickey: It's a fantastic program. [inaudible 00:13:01]

Reagan Miller: It's an amazing program. And really talking with the kids, it impacts their lives in these really profound ways. And so we are introducing or have introduced a mindfulness component within a randomized control trial to see, "Okay, this mentoring program does amazing things for these kids, can mindfulness help on top of that?" And so that's kind of the overarching project. And my piece within that is I actually get to send teens text messages that monitors how mindful they are, and how they can regulate their emotions in daily life, to see if some of those mindfulness interventions have a real world effect.

Matt Hickey: So you're leveraging technology that teens are plugged into literally and sort of metaphorically in some ways, to attempt to move the needle. We find ourselves amidst this pandemic and the toll from a mental health standpoint, I think we don't fully appreciate yet. Right?

Reagan Miller: Mm-hmm.

Matt Hickey: But there's a timeliness to what you're doing. And I'm curious if you and your mentors have had deliberate discussions about how do we take what we are already doing and sort of move it forward when it seems to me the need is even greater. And it in no way diminishes the pre-pandemic problems. But my goodness, the national statistics on suicide, on opiate addiction are unbelievably grim.

Reagan Miller: Yeah, absolutely. And you're absolutely right. Before the pandemic, there was a significant, especially mental health problem, especially with teenagers. And during COVID, I mean, we did see, especially from not only a research aspect, but I operate clinically and we were seeing that as well. And so interestingly enough, before COVID hit, we had actually started to do some of these mindfulness interventions within the mentoring program. And so we actually got to look at, how does mindfulness help kids with their stress about COVID-19 specifically? And how does it impact them during that first wave of COVID with mental health? And we saw from some of our results that the mentoring program as a whole protected a lot of these really vulnerable kids from experiencing even greater mental health problems. But then on top of that, the mindfulness intervention helped specifically with reducing post traumatic stress disorder symptoms and really helped improve how they regulate their emotions, which is a big piece behind mental health.

Matt Hickey: Have you thought at all about ways in which you can scale up your reach?

Reagan Miller: Yeah, so I think right now what we're focusing on is really making the theoretical model behind how those mindfulness interventions work. We really want to prove that, okay, these are the ways that it works in people's lives with the intention of scaling out beyond the mentoring program. And seeing, okay, who do these interventions specifically work for and what modalities can we deliver them? Does online work as well as in person? Those other questions that can be larger sometimes.

Matt Hickey: Let me ask you to put on your clinician's hat for a moment, and I'll be a little bit of a devil's advocate here in some ways. If you have some compelling evidence that it in fact moves the needle from a mental health standpoint, particularly in these youth populations, as a clinician, why would I care how it works as long as I know that it does work?

Reagan Miller: Absolutely. So when you look at all of these things, you want to be able to say from a scientific point, this is how we got from point A to point B. Because what happens if it actually is happening by random? What if people are just developing better relationships in their mentoring intervention, compared to what the control group would be? I mean, that would show no efficacy for the mindfulness intervention. And so you really want to say, okay, we're giving this intervention with these expected targets. For one instance, we're expecting in a mindfulness intervention, your mindfulness will improve. And how you regulate your emotions, there's a lot of heart of the mindfulness intervention that focus on that. And so we want to say we're actually trying to target these things and they actually have the impacts and the outcomes we're looking for. And it's not just some random thing that happens within a mindfulness intervention or within a specific group.

Matt Hickey: So our confidence about the public health needle being moved is better rooted in theory than in some potentially spurious early observations if we don't know they're actually attributable to the intervention itself.

Reagan Miller: Absolutely. And so exactly, we want to take those theoretical assumptions and say, okay, we actually can see that within human beings and generalize that to a bigger population.

Matt Hickey: There's this trick I think that all of us encounter at different periods of our research lives, if I can use that kind of language, where we're so excited about what we're doing and we in fact see some early evidence that it seems to be efficacious, and efficacious for an enormously significant problem.

Reagan Miller: Mm-hmm, yeah.

Matt Hickey: How do you be patient as a scholar under those circumstances?

Reagan Miller: Yeah, I think that's a good question. And honestly, I think knowing how research and science works, it is not something that typically happens overnight, especially when you're working with human beings and mental health and health behaviors and things like that. And so I think to have that desire to want to make such an important and positive impact is amazing. And I would encourage people to continue to be excited about this work, but also know things are going to grow and change over time, because that's how science works and that's how we kind of know how we can make slight improvements or changes, or so we know that we're not harming people as well in the process.

Matt Hickey: Indeed, such an important point. Right?

Reagan Miller: Yeah.

Matt Hickey: And it's the interest and the desire sort of kindle that flame to also keep us going when sometimes we don't get the results we had sort of hoped for. Right?

Reagan Miller: Yep.

Matt Hickey: I mean, so if we're honest, we peel back the curtain into life in the lab, if we're honest, it's not always a bit of roses. It's a lot of hard work. There are frustrations on occasion, I suspect. There certainly have been for me. Right?

Reagan Miller: Just a few, yeah.

Matt Hickey: But having the passion that I really believe in what I'm doing, I think there are opportunities to help people. To help people, so central, again to our college's mission. Again, that balancing act of I need to be patient and await the kind of data that can inform public policy. But my interest keeps me going when it's not always smooth sailing. Right?

Reagan Miller: Absolutely. Yeah, I think that can definitely help.

Matt Hickey: So talk to us about a day in the life. So I'm a doc student. I've got these two fantastic mentors, of course that you've already talked about, Lauren and Rachel. And so what does it look like when one enters that world of data collection and research? Give us some examples.

Reagan Miller: Absolutely. So I would say my day starts pretty early. A lot of these kids that we're texting, I say texting, but really an app is sending them a message. I actually go in or someone from my team goes in and we text them to say, "Hey, you're doing a really great job. You've answered X amount of questions. Keep up the good work." Or we try and see if there are any issues with the app that they may be having. So that's kind of usually how my day starts out, just checking in with some of the participants, followed by meeting with the team.

 I have a couple of other graduate students who are helping on this project as well. And just regular communication is so important with other members. I usually have a class or I help to TA a class in the afternoons. And then the evenings are spent either running research visits where we do some surveys with the kids and get them set up with the app for their phone, or running the mindfulness intervention, or calling families to schedule those visits. And a couple hours in there, throwing in some readings for my dissertation. But that's kind of what my days look like.

Matt Hickey: And you catch a little sleep and eat when you can.

Reagan Miller: [inaudible 00:21:21] details, yes.

Matt Hickey: Yeah, that's illustrative I think of what goes on. So when you talk about this team, are you sort the senior non PhD holding member of the team?

Reagan Miller: Yeah, I would say I'm the project coordinator for the study. I think that I have a really interesting and cool opportunity to be able to direct and work with graduate students who maybe are a couple of years younger than me in the program and say, "Okay, here's what needs to happen today. What problems have come up?" Troubleshooting, and then being the liaison between them and the PIs on the study, Rachel and Lauren. And so that has given me a really interesting opportunity to learn a lot about management in a very safe environment, and having productive conversations or tough conversations, oftentimes scaffolded by the PIs. It's not something that I was expecting to partake in, but it has I would say, the largest area of growth for me over the past semester.

Matt Hickey: Do you see yourself as a mentor?

Reagan Miller: I think so. I think I see myself as a junior junior mentor.

Matt Hickey: Sure, sure.

Reagan Miller: But I really love talking about research with graduate students and with undergraduate students and saying, "What are your interests?" And it might be that they're interested in research or they're interested in policy. "And how can we take your interests and what you're really good at and grow that and make it feel like you are growing professionally and personally?"

Matt Hickey: And those hard conversations, tell me more about that.

Reagan Miller: I think when working with people, people can sometimes experience challenges. Or let's say especially during COVID, we're communicating remotely or half the meetings are remote and half are in person. And so I think that creates its own challenges. Maybe you missed an email by accident or something came up with a participant that was really hard. The one thing that I think has been helpful is thinking about having those conversations sitting next to someone, rather than sitting across the table from them and saying, "Okay, here are all the things that went wrong, and here's what you did in that." Sitting next to someone and looking at it together, I think has been the key to any of those tough conversations.

Matt Hickey: And so it's conversational instead of confrontational.

Reagan Miller: Yes.

Matt Hickey: Right?

Reagan Miller: Absolutely.

Matt Hickey: I mean, that's a really productive way to think about it. I love it.

Reagan Miller: I feel like I have to use that tagline.

Matt Hickey: Go for it, you have my permission. So this is one of these off target questions that just popped into my head. So you've got a group that's committed to studying mental health and youth populations. Have you ever had moments when you've been here where you wondered, are we losing sight of our own? Are we so focused on others that we're not attending to ourselves? From a mental health standpoint? And I ask this pointedly. Again, the last couple years have pushed many people into uncharted territory.

Reagan Miller: I definitely think it's created an opportunity for us to think more about our mental health, especially the mental health of our team. I am involved within both Rachel and Lauren's labs. And pretty regularly we would meet and not even talk about the research that we're doing right now. We would say, "How are you doing? And what support do you need?" Or one-on-one with the mentor. And so I do think that there were a lot of unique challenges, but I also think it gave us an opportunity to say, okay, we're seeing this within the populations we work with. I'm experiencing it. You're experiencing it. How can we kind of support each other? And so I don't think that within our labs that I'm working within, I haven't seen that as much. But as a whole, I do think it can get lost if you are not paying attention to it.

Matt Hickey: I think we're all susceptible to tunnel vision on occasion, aren't we?

Reagan Miller: Yes.

Avery Martin: Yes.

Matt Hickey: So I want to put on your imagination hat and ask you to flash five years into the future. What are you doing and what impact do you hope your scholarly activity is having upon the world?

Avery Martin: Yeah. Well, in terms of what I'm doing, I hope that I'm continuing to do this research, continuing to work with mindfulness and adolescents. Maybe running my own lab at that point, or getting to that point would be really exciting for me, mostly in an academic sense. But in terms of the research that I'm doing, I hope that it really has the practical significance in people's lives. And they really do feel like they can handle stressors in their life in a better way, where they feel like they can take some breaths or they can remain regulated through really difficult circumstances. And scientifically, I really hope to strengthen those theoretical models so that we can begin to scale up in some of those ways that we had just talked about.

Matt Hickey: That's neat. So I'm going to ask you a couple questions about the broader environment. We move out of the labs of Rachel and Lauren and out of HDFS, and [inaudible 00:26:41] this perspective of the College of Health and Human Sciences. And so I'm interested in some reflections on what you like the best about being a PhD student in the College of Health and Human Sciences. What really appeals to you?

Reagan Miller: Yeah. I just think the mission of the College of Health and Human Sciences, and honestly, even the mission of CSU, of being connected to the community and improving the lives of the community and individuals within that, I think is one of my favorite parts. And I might be jumping ahead a little bit, but being a part of a land-grant university is something that I absolutely love. And I just think that you kind of see it in the work that people are doing, and how CSU is connected to the community, and through extension is just, it's amazing to be able to have that impact, but also that lens when you're doing any type of work.

Matt Hickey: That outward looking focus is kind of neat, isn't it?

Reagan Miller: Yeah.

Matt Hickey: Well, thanks for giving us some of your time today. We really appreciate it.

Reagan Miller: Yeah. Thank you so much for having me and talking with me.

Matt Hickey: Always good fun.

Reagan Miller: I love it.

Matt Hickey: Another great interview is in the books. Thank you for listening to this episode of Health and Human Science Matters.

Avery Martin: Be sure to check out the rest of season two, as well as season one. If you want to learn more about the college, go to www.chhs.colostate.edu.