

## Episode 34

01:00:00:01 - 01:00:26:25

Erin Hagar

Welcome to Moving the Needle. Casual conversations about ways big and small to impact student learning. Brought to you by the Faculty Center for Teaching and Learning at the University of Maryland, Baltimore. I'm Erin Hager. Let's move the needle. Hi, everyone. Welcome back to Moving the needle. Maybe it's just me, but I don't think there's any puzzle more fun to solve than curriculum.

01:00:26:28 - 01:00:55:19

Erin Hagar

Getting a group of people with their different backgrounds and abilities across the same finish line, grounding them in what's currently known while recognizing that knowledge is going to change and preparing these students for fields that might not even exist yet. I mean, come on. It's incredible when you think about it. And of all the curricular puzzles out there, the one we're going to talk about today is a 5000 piece, double sided single color kind of puzzle, just so complex and interesting.

01:00:55:22 - 01:01:17:22

Erin Hagar

It's the first in the nation medical, cannabis Science and therapeutics degree out of the School of Pharmacy and its curriculum design was led by our guest today. Dr. Leah Sara is the CO program director for the nation's first graduate studies and Medical cannabis Program at the School of Pharmacy. Dr. Sara graduated with her PharmD from the University of Maryland School of Pharmacy in 2010.

01:01:17:25 - 01:01:44:18

Erin Hagar

She is a board certified pharmacotherapy specialist who is often invited to speak on her areas of focus pain management, palliative medicine and cannabis therapeutics. She received a leader and health care award in the category of medical cannabis from the Baltimore Business Journal in 2020. Leah Also, and this comes into play in our conversation today, earned a master's in instructional systems development at the University of Maryland, Baltimore County.

01:01:44:20 - 01:01:46:14

Erin Hagar

Leah, welcome to Moving the Needle.

01:01:46:16 - 01:01:49:02

Leah Sera

Thank you for inviting me. I'm excited to be here.

01:01:49:09 - 01:02:02:12

Erin Hagar

Well, I can't wait to dive into this conversation. Why don't we start way back at the beginning and you orient us a little bit into how the medical cannabis Science and Therapeutics degree came to be. What drove its development?

01:02:02:15 - 01:02:39:20

Leah Sera

The program initially was conceived by our previous dean, Dr. Natalie Arrington, and it came into being because in Maryland, the medical cannabis program was really taking off. It was rapidly evolving and at the same time there have been a number of articles, published surveys of health care professionals is indicating that this topic, medical cannabis, wasn't taught in health

professionals curricula, but that clinicians wanted to know more about it because patients are asking them about it.

01;02;39;20 - 01;03;09;19

Leah Sera

And so that was really the impetus for us to start thinking about this program. I became involved because as I, I wanted to I asked my department chair to, you know, to put in a good word for me with the dean that maybe I could teach a class in the program. And then after speaking to the dean about some of my ideas, I was luckily given the opportunity to lead the development and implementation of the program as program director.

01;03;09;21 - 01;03;21;13

Erin Hagar

Wow. It's really interesting that it could really be considered a patient driven program that the patients were asking the health providers. And the health providers said, we need this.

01;03;21;16 - 01;03;41;17

Leah Sera

Absolutely. And that's reflective, I think, of medical cannabis as a whole and how it's evolved in this country. And it certainly has it evolved because of the medical field as we traditionally think of how how medicine evolves. It's really been very much a patient driven or a people driven.

01;03;41;24 - 01;03;57;09

Erin Hagar

Yeah. So interesting. So when you thought about kind of the landscape that you were given, when when this program was being conceptualized, what what kinds of puzzle pieces were you trying to fit together as you thought about this curriculum?

01;03;57;12 - 01;04;23;02

Leah Sera

Starting from the very beginning. You know, I have a background in instructional design, so it was, you know, a very good opportunity for me to kind of put my education into practice. It really was about what's the what's the gap? You know, what should we teach, what's missing? And this, you know, was a little bit more challenging for us because there was a template for us for this program.

01;04;23;07 - 01;04;47;25

Leah Sera

There was no other program like this that we could say, well, what is it another university doing or what's another program doing? So we had to really start from the beginning and think about, you know, things like who is our who's our target audience, what is our teaching philosophy, What's what's our why? Why are we doing this? What is our teaching teaching methodology?

01;04;47;27 - 01;05;17;10

Leah Sera

How are we going to implement this? What are our kind of external constraints? You know, what are the administrative constraints that we have? What are the curricular constraints that we have because of the, you know, our topic is not a traditional topic and a lot of nontraditional things about teaching cannabis. So really was starting from, you know, literally the ground up and figuring out all of those things.

01;05;17;12 - 01;05;26;08

Erin Hagar

Yeah, that's a that's a lot to put together. Maybe we can break some of those out. Piece by piece. So who did you see as your target learners?

01;05;26;11 - 01;06;11;28

Leah Sera

So it really evolved. And I would say that this was one of the things that we decided on very early and really drove, I think, the development and continues to drive the evolution of our program. And that even though this program kind of came into being based on, you know, what we thought the needs of clinicians or health care professionals might be, we quickly realized after, you know, talking to some, you know, some other stakeholders and trying to get just some thoughts and opinions from people in the field that the education really was needed in a much broader audience and just health care professionals because, you know, this field isn't just made up of health

01;06;11;28 - 01;06;45;15

Leah Sera

care professionals. It's made up of people with a lot of different academic and professional backgrounds, and none of them have this training in their, you know, college curricula either. So we decided pretty early on in the development to make this accessible to as broad an audience as possible. And that had, as you could probably imagine, major implications for how we teach some very challenging concepts in in the medical field.

01;06;45;17 - 01;06;50;05

Erin Hagar

Yeah. So how did you how did you approach that? We approached it.

01;06;50;08 - 01;07;18;04

Leah Sera

You know, from a two pronged standpoint. We needed to, you know, make challenging scientific concepts accessible to people who may not have a science background. You know, if we were going to accept people into the program who hadn't taken, you know, chemistry course since high school and teach them medicinal chemistry and pharmacology, we had to teach those concepts from the ground up.

01;07;18;04 - 01;07;47;18

Leah Sera

And similarly, if we were going to take non clinicians and teach them how to evaluate the medical literature, we had to include the basic building blocks in our curriculum and not make any assumptions about what people came into the program with because we didn't require any specific prerequisite courses or courses of study. Someone could, you know, can be accepted into the program if as long as they have a bachelor's degree in any field.

01;07;47;18 - 01;08;10;10

Leah Sera

So, you know, if they have a bachelor's degree from 1992 and Russian literature, then they can still be accepted into this program, you know, assuming they're otherwise, you know, good candidates. So we had to figure out how to teach that. And luckily, we have very you know, our science faculty are incredibly talented in that department at making that very accessible.

01;08;10;13 - 01;08;46;11

Leah Sera

The other side of this is we also want clinicians and health care professionals. You know, in our in our program. And so we needed to make sure that the content was also challenging so that they wouldn't be bored. And so we did that by, you know, creating different levels of assignments,

providing different opportunities for more experienced students or those who wanted, you know, maybe more of a challenge to dig deeper into the topic.

01;08;46;14 - 01;09;12;14

Leah Sera

And and although our approach has, you know, evolved, you know, a little bit in some of the some of the details of the coursework, I think overall it's been very successful. And what we found is that the students really benefit from that diversity in in the classroom because they are working with students who may have had very different professional, all academic or life experiences from them.

01;09;12;14 - 01;09;17;26

Leah Sera

And that just makes the learning experience much richer for everybody involved.

01;09;18;03 - 01;09;48;07

Erin Hagar

One of these puzzle pieces sounds like a very diverse group of learners with a wide variety of background and background knowledge coming into the program, but also the topic itself is very new, and the the levels of evidence around the field of medical cannabis have obviously been restricted. Can you can you talk a little bit about sort of where the state of the the medical cannabis literature was as this program was getting off the ground and how that impacted its design?

01;09;48;10 - 01;10;17;21

Leah Sera

We knew that because the medical evidence that surrounds cannabis is, you know, it continues to evolve rapidly, you know, and there there there is a fair amount of clinical evidence. There's also been a lot of, you know, preclinical studies that have been done on cannabis and related topics. And also, you know, there has been a lot of clinical evidence and not necessarily here in the United States, but outside the United States.

01;10;17;24 - 01;10;46;04

Leah Sera

And one of the things that, you know, I think was that drove the timing of developing this program was the publication of a systematic review by the National Academies of Science, Engineering and Medicine in 2017. That was an extremely comprehensive, systematic review and and ultimately concluded that there was evidence for the medical use of cannabis in several medical conditions.

01;10;46;06 - 01;11;15;26

Leah Sera

But we can't just teach our students what we already know. We have to prepare them to be able to interpret the evidence as it comes along. And that's why teaching them the process of evidence based medicine became a really critical concepts, you know, underpinning a lot of what we do in the program, teaching them, you know, how to appraise different types of articles in the medical literature.

01;11;15;26 - 01;12;06;16

Leah Sera

Those are, you know, how to and how to identify reliable resources online, how to communicate what you know, to different audiences, to to legislators, to health care professionals and to patients. And those are skills that, you know, will transcend, You know, what the state of the evidence is. Now, when you're in the program now and allow you to, you know, continue to learn and and explore the evidence as it evolves, which it will continue to do because this field is maybe more than some

other fields, you know, as I said, really rapidly evolving in terms of what we know about cannabis and medicine.

01;12;06;19 - 01;12;36;28

Erin Hagar

Yeah, I think that's such an important lesson for anybody. Thinking about curriculum to take away is what are the skills that are going to be evergreen no matter the the changes or the evolutions in the content itself and the evidence for what you're teaching. How can you prepare your students to to evaluate information and to assess it, to find it, to communicate it well beyond, you know, the lifespan of whatever specific content might be in your coursework?

01;12;37;00 - 01;12;59;24

Leah Sera

Absolutely. I love that term. Evergreen. I think that's is just it gives the students, you know, something beyond, you know, something to carry with them beyond what they have learned. And it allows this degree to kind of keep on giving even as their own professional career. You know, takes them in, you know, one place or another.

01;12;59;26 - 01;13;22;12

Erin Hagar

So we've got the diversity of learners. We've got the ever changing landscape of the evidence itself. And and you just mentioned briefly this idea of speaking with legislators, right? We've got this legislative context around there. How did how did that impact the design of the curriculum, the legal landscape, the legislative part of this?

01;13;22;14 - 01;13;49;28

Leah Sera

Well, it it impacted the curriculum in a number of ways and continues to impact the curriculum. This is a topic which especially considering we're a public university and we receive, you know, federal funding and our students are eligible for federal financial aid that we need to be careful about how we present the topics and how we teach about what is still a Schedule one substance.

01;13;49;28 - 01;14;15;04

Leah Sera

It's a it's a federally illegal substance. You know, for however long it remains. We shall see. But at the moment, that's still the case. And so we don't do any hands on. We don't have any cannabis in the program there, no hands on experiences. We don't have some topics in our curriculum like how to run a cannabis business.

01;14;15;06 - 01;14;45;17

Leah Sera

And so it has impacted our ability to teach some topics. But you know, it's given us also an opportunity to focus on what is important in our wheelhouse as a school of pharmacy and that is the patient as as you said, you know, this is a patient driven idea and patients remain at the center of of everything that we teach in the program.

01;14;45;20 - 01;15;09;21

Leah Sera

So things like, you know, obviously the clinical topics, you can kind of draw a direct line to patient care and impacting patients, but also the science, you know, understanding the science, understanding the different policies and how they are made and how you might influence the development of policy in the future. Those are all things that come back to improving the lives of patients.

01;15;09;24 - 01;15;16;14

Leah Sera

And so those are the things that we've focused on cultivating, so to speak, in our curriculum.

01;15;16;17 - 01;15;19;22

Erin Hagar

Yeah, So there's an advocacy component, it sounds like as well.

01;15;19;25 - 01;15;54;23

Leah Sera

Absolutely. We we started off in the original curriculum. We had an elective and still have an elective that focuses on, you know, federal and state laws and policies. But a couple of years ago, we added a new elective on medical cannabis advocacy was developed by Debbie Cheer Guy who's who was at the time the executive director of Americans for Safe Access, which is, you know, one of the biggest, if not the biggest patient advocacy nonprofit related to medical cannabis in the United States.

01;15;54;25 - 01;16;09;27

Leah Sera

And that, you know, takes just knowing about the laws and policies one step further to teach students how to translate that knowledge into, you know, you know, action at the, you know, federal, state, local level.

01;16;09;29 - 01;16;16;29

Erin Hagar

Another one of those evergreen skills that no matter how the landscape changes, there will always be a need for advocacy in one form or another.

01;16;17;00 - 01;16;18;04

Leah Sera

Absolutely.

01;16;18;06 - 01;16;25;12

Erin Hagar

Yeah. That's so great. What were some of the surprises that you dealt with as you were designing this curriculum?

01;16;25;14 - 01;16;56;06

Leah Sera

For me, I think that the biggest surprise really occurred kind of during the first couple of years of of implementing the program, and that was the importance of kind of the co-curricular aspects of program development, things like creating the culture of the program, things like setting, you know, expectations and professionalism and how to engage students with faculty and engage them with each other.

01;16;56;08 - 01;17;42;07

Leah Sera

The importance of activities that bind students together like, you know, like student organizations and things like that. You know, the curriculum itself, of course, is central to our program. But those co-curricular things, I think, are what give, you know, a program, its sort of staying power and helps it evolve and helps it improve over time. And so that was then and has been an incredible learning experience for me and and helps, I think, us as faculty and program directors really feel like we're in

partnership with, you know, with our students because, you know, just a couple short years I'll go from students to being colleagues and, you know, one of the things that I think

01;17;42;07 - 01;18;03;00

Leah Sera

exemplifies that more than anything else is that we've been happy to bring back alumni to help teach in our program and to create this kind of network of students and alumni that are all working toward this common goal of, you know, helping patients through learning about medical cannabis.

01;18;03;02 - 01;18;24;05

Erin Hagar

That idea of co-curricular is so interesting, and I don't think we mentioned earlier that that this is an online program. And so that idea of student student connections with each other, student connections with the faculty takes on a different dimension when they are working primarily asynchronously. So how did you what did you implement to create that culture?

01;18;24;08 - 01;18;53;03

Leah Sera

Some of those things were were built a little bit into the curriculum for the beginning of it have evolved things like our symposium where even though we are an online primarily online program, we do require that students come to campus once a semester for, you know, for a symposium that includes workshops and seminars and opportunities to network with each other, with the faculty, with professionals in the field, with alumni.

01;18;53;05 - 01;19;29;24

Leah Sera

And so that's that's evolved and in different ways. As you know, our different cohorts kind of tell us what they want out of that activity, but also smaller things like adding office hours, you know, live online office hours, you know, into our courses so that it's not everything's not asynchronous. They're they're optional, they're recorded. But it's an opportunity for students who want to engage with the faculty to to do so where it's not just an email where you can see someone, you know, on a computer screen, at least.

01;19;29;26 - 01;19;57;09

Leah Sera

And so that's been, I think, a big thing that we've gotten very good feedback from from the students about our student organization has been a huge one and that's been very successful. And they work with alumni. They have networking events on their own. They have they invite professionals to give, you know, workshops and seminars to the students. They have study study hours.

01;19;57;09 - 01;20;12;01

Leah Sera

So those things have been really big in helping to, you know, as I said, build the kind of the culture of our of our program and what it means to be a student in, you know, our medical cannabis Science and Therapeutics program.

01;20;12;03 - 01;20;28;28

Erin Hagar

How are you evaluating and adapting the program going forward? What kind of inputs are you getting? How are you putting that all together in the stew and and making, you know, changes in and modifications as things go forward?

01;20;29;01 - 01;21;01;16

Leah Sera

Since we launched the program in 2019, there have been a number of changes to the curriculum. Some of them are you know, more administrative, like we broke up a three credit longitudinal course into three one credit courses. But most of the changes that we've made to the curriculum have been about personalizing the student experience, you know, I guess individualizing the student academic experience in the student curriculum and responding to what the students say they want to learn.

01;21;01;16 - 01;21;36;21

Leah Sera

And for us, that has meant adding, you know, different elective opportunities to to the program. Things like like the advocacy course that I mentioned, things like an integrative health and wellness elective where we've added medical psychedelics elective that's going to run for the first time in just a couple of weeks this spring. So it's been great for us to take feedback from the students and incorporate it in into the curriculum.

01;21;36;21 - 01;21;58;03

Leah Sera

And because, you know, the students are the ones who are telling us, you know, here's what I here's what I want to learn, here's what's going to be helpful to me as I navigate, you know, my way through this industry after graduation. Here's what I want to know. And so that's been how we evolved the program over the last few years.

01;21;58;06 - 01;22;16;19

Erin Hagar

Yeah, it's almost taking that patient centered approach and kind of bringing it full circle. The patients kind of drove the development of this by asking for it, and then you're continuing that that loop by taking the input of the students who are hearing presumably from patients and colleagues about what's going to propel them forward.

01;22;16;22 - 01;22;17;25

Leah Sera

Absolutely.

01;22;17;28 - 01;22;36;10

Erin Hagar

So, Leah, if you were going to talk to someone in academia, program director, program chair who is thinking about pioneering a new program that was really on the cutting edge the way yours was back in 2019, what what advice would you give them?

01;22;36;12 - 01;23;06;17

Leah Sera

Yeah, first, I think it's, you know, the most important thing is to have the support of your administration. And we were really lucky because as many potential roadblocks as there could have been for a program like ours, you know, we really had very consistent support, not only from our, you know, school of pharmacy administration, of course, but also from the university, you know, and Maryland High and Higher Education Commission.

01;23;06;17 - 01;23;31;03

Leah Sera

And so that's important. And the way that you do that, I think, is that you, as you know, the the potential program director or leader of the program need to kind of do your homework in your

research, find out, you know, what is the need for the program, who is the target audience, what else is out there in terms of potential competition and how are you different?

01;23;31;05 - 01;23;50;15

Leah Sera

And then once you have an idea of all of that and maybe a general idea for your curricular structure, get people excited about it, you know, be passionate. Understand your why once you get people excited about it, then, you know, hopefully all of the the pieces will start to fall into place.

01;23;50;18 - 01;23;54;10

Erin Hagar

Yeah. Well, what is exciting to you going forward?

01;23;54;12 - 01;24;19;11

Leah Sera

Some small things and some potential larger things, you know, as an instructional designer by training the the iterative, iterative changes that you make to a curriculum are, are very satisfying to me. Things like, you know, taking that student feedback and adding a new elective or making changes to improve specific courses within the existing curriculum. Those are all things that I enjoy.

01;24;19;11 - 01;24;50;07

Leah Sera

But from a, you know, a more, you know, kind of a larger, you know, more 30,000 foot view. I think that it's seems likely now that there are some changes coming to this field and the way that cannabis is regulated that may, you know, open up some more doors for us in terms of topics that we're able to teach in our curriculum, things that we're able to do, perhaps adding things like externship or internship experiences.

01;24;50;09 - 01;24;57;11

Leah Sera

So the future is bright. I'm really excited about what we're going to be doing in the next you know, 3 to 5 years.

01;24;57;13 - 01;25;17;29

Erin Hagar

Well, I'm excited for you. I can't thank you enough for taking the time to be here with us today. This is a fascinating curriculum on so many different levels. And it's, you know, to kind of see it being built literally from the ground up has just been an exciting part of of my work here at U and B, So thank you for taking the time to share it with all of us.

01;25;18;01 - 01;25;33;05

Leah Sera

Well, thank you for inviting me. And Aaron, thank you for all your help, because, you know, because you were there from the beginning, you know that I couldn't have done it without you. So I'm forever grateful to you for all of your help getting this program up and running. Back in 2019.

01;25;33;08 - 01;25;47;23

Erin Hagar

Thank you for joining us today. On moving the needle, visit us at U. Maryland. That edu slash f seitel. To hear additional episodes, leave us feedback or suggest future topics, we'd love to hear from.