

INDIE MAJOR PODCAST

10/30/24 Alexsia Newman

Individualized Major: Developmental Neuroscience

Ken:

This is Indie Major, a show devoted to the wide-ranging stories and visions of individualized majors at the University of Connecticut. I'm your host, Ken Cormier.

Ken:

I'm here with Alexsia Newman. Hi Alexsia.

Alexsia:

Hi. How are you?

Ken:

I'm good. Thanks for coming in. You are an individualized major here at UConn. What's the name of your major, and can you tell us what it's all about?

Alexsia:

Yes, so I'm majoring in developmental neuroscience. That's HDFFS, P&B and Psych. HDFFS is human development in family sciences, and P&B is physiology and neurobiology. So I'm kind of getting my development with HDFFS, more of like the body and physical well-

being with P&B. And then my psychology kind of covers mental health rather than physical health.

Ken:

Okay, so you do spend a bunch of time studying the brain itself, the actual apparatus of the brain and how that works.

Alexsia:

Yes, so I'm taking a class, biology of the brain next semester. So I haven't taken it yet, but that will get me a little bit more into the pathway of the brain, but I have already taken my anatomy and physiology sequence. So that kind of helps me get more of the physical body done. We did a section on the brain for that. But we got to do more of the physical health for that one and talked about different illnesses that ran through the body and the different parts of the body that were affected.

Ken:

Now, neuroscience, we have several individualized majors studying neuroscience here. And the ones that we have are approaching it from slightly different angles, right? And yours is developmental neuroscience. So what is the developmental part of things?

Alexsia:

So the developmental part is kind of as you grow, what's changing? So, I'm very interested in going into pediatrics. I'm also pre-medical. So I wanted to figure out what is happening in your brain, in your body, as you're growing, as you're changing. So you're going to be a kid and you're going to the hospital. You're going through all of this with your body, but you're also not seeing your friends. You're not

experiencing the rest of the world. So I want to know how their mental health was being impacted, and if that substantial enough to carry out into your adulthood. A lot of my developmental psychology and HDFS courses are helping me dive deeper into that. It kind of shows what you bring with you as a child, into your adolescence, into young adulthood all the way through your life. And sometimes if you have a mental illness that will change the pathways in your brain, which ultimately, if your brain pathways are changing, that's kind of going to carry out with you throughout your development. Now, this is interesting.

Ken:

So your major consists of science courses, obviously, physiology and neurobiology. Now, psychology, a from what I understand, is a department that has some very science heavy courses, but it's also got some more social science approaches to psychology, right? And then HDFS, Human Development and Family Sciences, is more of a social sciences kind of a department, right? So you have sort of a balance in your major between, you know, you're in the lab doing science, on the one hand, but then on the other hand, you're studying more like, social systems or ways in which people interact. Alexsia:

Yeah, exactly. So I'm kind of doing my science, like you said, fully P and B. That's all my science courses. And the social sciences, all of my HDFS, and that kind of talks about the development and everything that's going on. But psychology kind of brings the two together. I remember this one occurrence in one of my classes. I was taking PNB and psych at the same time, and we were talking about our receptors in our brain during PNB. And we were talking about which parts of the brain were affected by having anxiety and depression. It's really cool to put the two together because if you

were having a certain receptor that wasn't working, that's kind of what was influencing the mental illness and seeing both sides of it between the science and the social science, it kind of puts the two together. Psychology kind of gave you that middle ground in between HDFS and PNB.

Ken:

Now, have you wanted to be a doctor for a long time? Is this something you thought about as a kid?

Alexsia:

I've always wanted to do something. This is very cliché, but to help people. When I was really little, I wanted to be a vet, and then my mom's a teacher. I thought about being a teacher. I always wanted to work with other people or obviously animals. But so ever since middle school, I've wanted to be a doctor in the medical fields in some way. I went back and forth between a PA and APRN. Honestly, I still am trying to figure out which pathway is going to be the best for me, but I have always wanted to go somewhere to help. Definitely medical. Ever since middle school, I've wanted to do something medical. Right now, I'm an EMT, and I'm also a PCA at Children's Hospital. So I kind of got my foot in the door there, and I love the hospital, and I don't think I'd go anywhere else.

Ken:

Wow. So you're an EMT. Is that something that's separate from what you're doing at UConn? Is that just a job that you have?

Alexsia:

Yeah, that's a job that I have. I did take the course here, though. So I took my EMT course here to get certified, and I work over the summers, and on my free weekends, I'll go do that. But I really like you get to see like, everything that's going on in the real world, mental health, physical health, and honestly, you can see the connections between the two. But because of my interest in development in pediatrics, I wanted to get into the children's hospital and get some hands-on experience there, too.

Ken:

Okay so what's that, like, the PCA. What is PCA Care? Patient care assistant. Okay. And what kind of step work do you do there? So, I'm afloat PCA, which means that I kind of go to different floors. So I've been in the neonatal ICU, the pediatric ICU, and then three of the med surge floors. And you get to see so many different things. We're doing vitals on patients, helping nurses with changes and doing all of the basic care, just trying to make sure that they have daily living skills. But we're also there in order to kind of interact with the kids and make sure that they're getting like, connection, since they're not at home, they're not with their friends, and they're not in school. So you get to really be around them. And it's really inspiring to my major as well.

Ken:

I bet. So you're doing all your coursework. When are you graduating?
Alexsia:

Um, May of 2026. Okay.

Ken:

So you're I'm a junior right now. All right. So you're doing all this course work and you're working summers, and do you do the PCA stuff during the regular school year as well?

Alexsia:

Yeah, I'm a 12-hour employee, so I work once a week.

Ken:

Wow. So it's a pretty intense schedule, I'm sure. You're heading for, you know, it's a pretty intense career to get into medicine. So what do you do to relax? What do you do outside of all these interests in medicine?

Alexsia:

I am part of a few clubs on campus. So I definitely kind of use that during my free time. Obviously, I'm filling it with something else, but it's something that I enjoy. I'm part of APO, which is Alpha Phi Omega. We do service for the community. So that's a big part of my time that I use. But other than that, I kind of just hang out with friends and family, and I like to relax in my bed over the weekends when I'm not working.

Ken:

Probably a good idea. Very good. So you said your mom was a teacher. Alright, so that was one example you had. Did you have doctors in your life growing up, or people you knew who were doctors, or was it more just like an idea?

Alexsia:

It was more of an idea. My Mima, my grandmother, she was a nurse. She was a rehab nurse. But I didn't have any, like, doctors or PAs in my family, you know.

Ken:

So now, if you're junior, does this mean you're already starting to look at medical schools and what that is all about, or is this something you can still, you know, just focus on your coursework and think about that later.

Alexsia:

So, I decided that I'm going to take a gap year. So I don't have to apply to med school until the end of my senior year. So that'll put me a a year after my studies, and I decided since I'm doing a double major actually in Spanish. So I decided I need to focus a little bit more on my course work, and I can use that extra year to save up and work my job and see what I want to do.

Ken:

Okay, so that's right. I forgot to mention that. You're a double major in Spanish, as well. Now, do you see connections between what you're doing and what you're thinking about as a pre med student and this major in Spanish?

Alexsia:

Oh, my gosh. Yes. So I use Spanish pretty much at my job. Whenever I'm there, I work in Waterbury as an EMT, and there's a lot so many Spanish speaking people and obviously, you can get by if you don't know it. But even at my level, I'm only an intermediate, and I'm using it on the job, and I'm talking to people and making sure

that they're okay. Just being able to say, like, what's hurting? Can you point to it? Can you breathe here? Like, can I put this on your finger? It's just so much helpful having that Spanish background. And I think that going into the hospital setting, emergency room, the ICU, you're going to want to be able to talk to the families and the kids, especially if they're not able to speak your language. Obviously, interpreter is available, but I think it's important to have at least a little bit of that knowledge with you.

Ken:

Yeah. I mean, language is such a big part of close personal and personal connection, that I can imagine that's enormously helpful, just in connecting with patients and assuring people and letting people know what's going on. So you must be doing research as part of your major as well?

Alexsia:

Yes. I'm in a research lab. I'm in the band lab by Jonas Miller, a professor here at UConn. And we're kind of looking at how childhood adversity is affecting mental health and the psychopathology, and we're looking at the different things that are going on in the brain with the fNIRS, and the electrodes and everything like that.

Ken:

Wow. So what does that work look like when you're in the lab? What are you actually doing?

Alexsia:

So far, this is my first semester doing it. So I haven't been able to work with participants yet. They haven't been able to come in the lab. But we've been doing a lot of prep work. I've been they're kind of showing me and the other new RAs around and seeing what we're going to be doing with our patients and how to build a survey and how to set up the electrodes and everything like that. So once patients come in, we'll be able to see, like their brain waves and the sweat that they're developing on their palms while we're having them do different activities and trying to kind of measure their stress levels and everything like that. So I think it'll be cool to see, and it's also a longitudinal study. So it's over time. So you get to see how they're changing and growing. So I think that'll be really cool.

Ken:

Yeah, that is fascinating. And now, is that going to feed into some kind of individualized majors do some kind of capstone project or a thesis project? Is this research that you're doing, maybe going to feed into some kind of final project, do you think?

Alexsia:

Yes, I hope so. So that's kind of what got me interested in it. I want to eventually look at how the childhood adversity specifically being in the hospital because that's something that completely changes your life, it's obviously different than other types of childhood adversity. But I think since I'm going pre med, that's the one specific I want to look at. But how that is affecting mental health patterns and how being physically ill is affecting your mental health in the future, and if that stays with you for a long time or if it goes away and what different types of interventions they'll I kind of like how this is like all childhood adversity, and I get to see what they're doing in

their lab. Maybe I can use that towards my final project, my Capstone, senior year.

Ken:

When you think about yourself, project into the future and your actual career as a physician, where do you picture yourself being or what do you picture that looking like?

Alexsia:

Well, I definitely want to be in a pediatric hospital if I haven't said that already. But I have really enjoyed the ICU. I know that that's typically one of the more sad places to be, but I think that having a background in mental health and knowing that the illness that brought them in is not the only thing that they need to be treated there. I think it's important to have that background if you're going to be in that situation. Any kid who's in the hospital will need somebody to take care of their mental health and physical health and kind of keep track of everything that they're going through. But I think I want to be in the ICU, maybe. We'll see what happens, but I think that it'll be important to, like, know what to look for and know that things are always changing with them.

Ken:

Yeah, well, it sounds like you had a really specific vision within this idea of becoming a doctor. And it sounds like maybe this program helped you craft that major that really is getting you into that material that you wanted to study.

Alexsia:

Yes, I agree. I originally came in as bio, and that was evolutionary biology and physiology and neurobiology and also microbio. And I just I didn't see how all of that was going to be helping me specifically attain my goal. In the future. I knew I had to take all my pre-med classes and get myself there, but I also knew that a lot of med schools didn't really focus on the psychology and the development and was more of, like, a very small section of it. But I thought that if I was going to be working with kids and working with like, such a vulnerable population, I think it would be important to know the psychology and know what to look for and just, like, be a little bit more involved. Since my family, I knew some people going through mental health crisis and saw how it was affecting them, and that's always weighed on me. So I think I wanted to keep that in mind for my future.

Ken:

Well, I'm glad you found us, and that you were able to combine all these classes into this really interesting major. This has been fascinating. Thank you so much for coming in.

Alexsia:

Thanks for having me.

Ken:

Thanks for listening to Indie Major. If you'd like more information about individualized and interdisciplinary studies at the University of Connecticut, please visit our website at iisp.uconn.edu. That's iisp.uconn.edu. We'd also like to thank UConn Enrichment Programs and WHUS UConn Radio for their support of this show.

