

S1 00:00 [music] Welcome to the Sports Medicine podcast, brought to you by the Sydney & J.L. Huffines Institute for Sports Medicine and Human Performance, and the Department of Health and Kinesiology at Texas A&M University. At the Huffines Institute, we're always working to facilitate, apply, and bring you the most up-to-date coverage of the wide world that is sports medicine and human performance, all in a language you can understand and share with your friends. And now here's our host, the director of the Huffines Institute, Dr. Tim Lightfoot.

S2 00:33 Hi, this is Tim Lightfoot, host of the podcast that you're about to listen to. We're so excited for the new year for 2018. We hope that it's off to a great start for all of you. Here at the Huffines Institute, it's off to a great start for us. We've launched our new website so check that out at huffinesinstitute.org. Our apps for both Android and Apple platforms have been significantly upgraded. Pull them down, check them out. We've got here starting in a couple weeks, the video presentations from the Hilliard Discussion Seven that happened just this past November, starting. So make sure you check out all these things. And with that, we'll lead on with our podcast of the day. Well hello, and welcome to the weekly edition of the Huffines Institute for Sports Medicine and Human Performance podcast. I'm your host, Tim Lightfoot, and I'm so glad that you took the time to download us and that you're listening today as we bring you another interesting person in the world of sports medicine and human performance. And today is no exception to the rule. We have with us Dr. Stella Volpe from Drexel University. Welcome to the podcast, Stella.

S3 01:37 Thank you, Tim. It's really great to be here. An honor to be asked.

S2 01:40 Well, it's great to have you on. And we've asked Dr. Volpe on today as part of our, "Stories behind the Studies" series where we ask scientists who have published extensively to tell us about their most memorable study and the things that went on behind it. But first, before we get to that story, we want to tell you a little bit about Dr. Volpe. Many of you may remember, or you may not remember, that Dr. Volpe was one our speakers in the Huffines Discussion Two way back in 2012. She was actually on our number 84 podcast which was put out on August 24, of 2012 as a matter-of-fact. As I mentioned at the top, Dr. Volpe is currently the professor and chair of the Department of Nutrition Sciences at Drexel University. She got her Bachelors in Exercise Science from the University of Pittsburgh. She got her Master of Science in Exercise Physiology and Cardiac Rehabilitation from Virginia Tech. And she got her PhD in Human Nutrition also from Virginia Tech. She has a multitude of research interests. She has a multitude of awards. And as I said, the highlight of her career so far has been the fact that she was one of our Huffines Discussion speakers way back in 2012. And so again, we're so glad to have you on the podcast Stella. And so Stella, we're just going to start the conversation with a real simple question that we start all these conversations with. And that is, what is your most memorable study? If I ask you of all the studies you've done, which one pops into your mind as the one that was most fun, most interesting to do?

S3 03:10 So Tim, before you asked me to do this, I was thinking about this. So many of them have been fun, and I think you would attest to that with your own research. But that one that comes up to my mind was one that we did at a university where we changed the portion sizes in different cafeterias to prevent freshman weight gain. And what comes to mind that was pretty funny about that, was when my project manager and I had to meet with the food service managers and his team, and ensure that what we wanted to do we could do. Because the idea was changing portion sizes in the

university dining halls so that students weren't aware of it, but that it would help to prevent freshman weight gain. That was sort of the premise of the study.

- S2 03:54 So before you go further with this. So you actually went into the university dining services and you convinced them to change the portion sizes?
- S3 04:02 We did. We did. And that in itself was not an easy task. So finding a university first of all who would want to do it because-- going back just a little bit. A little bit of preface to this is I was moving from one university to the other, so the university at which I was previously was all into doing this but then when you move to another university you're not well-known there. So you don't have that-- you're building, right? Your relationships.
- S2 04:30 Right. Who are you and what are you asking us to do?
- S3 04:33 Exactly, exactly. So that in itself was difficult. And we also had to find a university large enough where we could-- they had more than one dining hall, right? That they had one where we could use as a control and one that we could use as the intervention. So the control dining commons, just for the audience, was the one where we made no changes, where they received the normal portion sizes. And the intervention one was the one where we changed portion sizes. Everything was cut back by about maybe 10 or 20%. And so in this meeting, prior to everything starting, once this university agreed to allow us to do this, meeting with the food service director actually and his managers, and other folks, he just looked at me and said to me, "So, Stella. If I hear one complaint, you're done." And I thought, oh, my gosh. I felt like I was in the principal's office and I got kind of scared [laughter] because as you well know, I mean, this an NIH funded study. You don't want to mess it up as a researcher. You don't want to mess any study up. I don't mean it like that. Any study is important to us, but when it's a federally funded one it even like-- oh, my gosh, there's even a greater pressure on you. And I looked at him and I said, "You know, sir. It won't happen," but of course then when we're leaving I look at my project manager and I say to her, "Now, this can't happen." We're both looking at each other getting so nervous despite the fact that I guess to those of you out there who have done research-- who do a lot of research, who are getting into research, it doesn't matter how often you've conducted a study. There's sort of always something like that that you're like, oh, my gosh. Yeah, we can't mess this up. But again as you know Tim, there's never a perfect study. Especially because my work is always humans it makes it even that much more difficult because people are out in the field. We can't control what they're doing. Not to say that your work is any easier because I know you do a lot of stuff with animals. It's just that it's hard when you can't control people-- other things they do aside from what you're doing in your study. So I guess that was one thing that always sticks in my head. I don't know if it's funny or not but for me, it is funny looking back, but it was also sort of scary at the same time.
- S2 06:46 Well, the last thing you would expect as a scientific barrier is the food service manager in a cafeteria.
- S3 06:52 Exactly. And he was the director so he was in charge of it all. But here's what his thought was, right? This is bottom line for him. If his clients, i.e. the students, were unhappy and they're paying for this because they're university students, he has to serve the students. So I got it. I got it where he was coming from but at the same time, you're absolutely right. I was thinking oh, my gosh, right? But that's his job. He has to protect what he does and keep the integrity of what he does and keep his clients happy. So when you stop to think about it, it was like, well, yeah, I get it but boy oh boy at the time when he said it, I literally just sort of sank in my seat and I said

to him confidently, "It won't, you won't," and he didn't. The end of the story is, he did not. We got to complete the entire study there. They were all wonderful to work with. And we were so grateful for all of their help. With him, with the food service managers, with so many people who were involved because we needed them all. They were so great to us. Always so great to us.

S2 07:50 So obviously, the premise of the study was that the portion sizes the students were eating was contributing to obesity and other types of negative outcome. Am I correct with that premise?

S3 08:01 Correct. Correct.

S2 08:02 So how did you change the portion sizes?

S3 08:06 So that was the next step in it because after we got the okay and then we worked with the food service managers who directly, right, were those who supervised the food service employers. The ones who made the food served the food. We then had to sort of ask them, "Can you," for example, "cut your pizza, instead of eight," I'm making this up, but "eight slices, make it 16?" So we had to ask them to sort of change the way they cut sheet cakes. To change from 88 slices to 96 slices. So whenever slight change, and all the ways-- when they served sandwiches, give two ounces as opposed to three. So all those things may not have seemed like a lot, but we made enough changes that we did see, not a significant reduction in body mass index over time, but we saw that the intervention group went down a little and stayed pretty steady whereas the control group went up. And so the pattern was-- and this was a year-and-a-half study, so we followed from basically freshman year into the first semester of their sophomore year. Some of them were transfer students but, in general, that's who we followed. And we were happy to see that keeping other things-- the confounders that could happen, right? Exercise, all these other things-- that our intervention what we call sort of a quiet intervention, if you will. Environmental but quiet because the students were not aware of it. We saw a change. And as an aside, we did get approval, that the students signed informed consent but their thought was we're just following and measuring their body mass index, and their fitness levels, and their dietary intake over time.

S2 09:46 Did you tell them at the end that they had been eating smaller portion sizes?

S3 09:50 We never did. We wanted to but the difficult part of it is even though those students would have graduated if we did another intervention there, we didn't want to sort of harm it. We didn't want to affect it for maybe future studies where, even though, again, they would have been gone, who knows if others would have passed it down and people could have said, "Oh yeah, this happened," in the past. But another cute story, if I may.

S2 10:17 Sure. Oh yeah.

S3 10:18 Okay. And that is only because this was really sweet that the one food service manager who was in the-- she was the manager of the controlled dining common, right? She was so sweet. She said to me, "Well, Stella, you know what? We could make our portions bigger if you wanted us to, and you make them smaller," and I looked at her and I said, "Boy, that is so enticing but that would be really unethical, but I thank you for caring that much." That was just to me, she was just trying to be helpful. And, again, two sort of things that I remember so clearly, and I can picture them so well saying what they said, but that was a very sweet thing for me that she wanted to be so helpful. Because again, as you know many people know that I always tell my

graduate students, studies are never as important to the people involved - our participants, anybody who might be involved sort of outwardly - as they are to us. So the fact that she was so excited about it, being a participant in it, it made me smile. Just to be clear, I did not have her do that.

S2 11:24 Well, [laughter] it sounds like that they got on board with that, and they became interested in your findings.

S3 11:29 They really did and they were really wonderful about it. As a matter of fact, again, this wasn't at the university where I was at the time. It was at a different university. So they were gracious in giving us space to do our measurements because we had to take our measurements in certain places. They were very gracious in everything that they did for us and even in-- because we needed to have data on when students went to the dining commons to ensure that, if indeed they were in the intervention dining common, that they went there at least 80% of the time, right? We needed to make sure that they didn't go to the control one more of the time, or they'd be more the control participant. They gave us all the swipe card information and canceled out-- only gave us information on the participants in our study. So I couldn't thank them enough. We could not have done it enough because it's a very, very large university. So we were very grateful.

S2 12:19 So what kind of impact did this study have? Do you know?

S3 12:23 Well, that's a great question because-- so we want to do follow-up. And I've applied for some of those grants, and have not been funded for them because what my goal honestly is, is to do this for four years. That was basically a three-year study, but our intervention was a year and a half. I would really like to follow students for four years because they move off campus. And so what we felt in our short time there, we felt that we did make the dining common employees, the food service employees, aware of food service. The one thing that we did not do that I would do in another study is to evaluate the impact on cost for them because that's another incentive for them. And waste, we didn't measure waste because our sole focus was really, on the student, and their BMI, and preventing freshman weight gain. We don't have strong, strong data on this, but we did ask students, we did ask students if they noticed changes in the portion sizes. And they did not. Without sort of revealing that that's what was happening we just said, "Did you notice any changes in the dining commons with portion sizes?" We kind of asked it in a very general way. But yet, it seems like from their dietary records that some of them did change a bit on what they consumed on the outside of the dining commons, but not really significantly. So nothing long-term unfortunately because we haven't received more funding to continue, but my goal would be to continue. And secondly is my team and I purposely recruited people with a BMI of a healthy range and we also purposely did not recruit varsity athletes. But I would like very much to include the next time, ranges of BMI to see how BMI might impact whether a student gains weight, loses weight, or remains weight stable.

S2 14:22 Very interesting. Do you know of other types of these kind of field-based studies that have been done like this? This seems to be a pretty unique study?

S3 14:31 Well, thank you, Tim. There have been different studies like this. Some have followed students over time and not really conducted an intervention. Others have made changes to dining hall, but not always to portion sizes just more to food choices. And there have been many conducted in employee situations in the cafeterias of workplaces. So a lot of them have been done there because sometimes those cafeterias are smaller, and they're a little bit easier to control. These are pretty tough because they are catering to thousands of students a day, three meals a day. And a lot

of them are-- I don't know about Texas A&M, but a lot of them are open all day because of students' schedules.

S2 15:15 Right. Yeah. So this is really a free-ranging kind of experimental group here?

S3 15:19 It really is. It really is. And lots of tweaks we could've done and I'd like to do them next time we do this. Again, I just need to apply again for funding which I have and just need to tweak it again based on reviewers comments.

S2 15:34 But these are the type of studies that I would hope our listeners would understand are massive studies in that you have to have the coordination of a lot of different people to make these things come off.

S3 15:44 You really do. And as you said earlier it sounded like we had buy-in, and we did. And that was a big thing. We had to have buy-in from, in particular, the food service director, the managers, and the food service employees because without them it couldn't have happened. Oh, I'm sorry. Go ahead.

S2 16:00 No. No. I didn't say anything.

S3 16:02 Oh, I'm sorry. So we also had what we called process evaluation measures. We would go around each week to ensure that the portions were again remaining where they should be. We did another study in the schools but in the control cafeterias or dining commons. So that was something that was very important because if we saw something kind of changing we had to discuss it with the food service director. Because the food service employees - another side to the study - were also blinded to the study and why they were doing it because we didn't want any of them to have an influence on students. Because many of them get to know the students and might say, "This is smaller than usual. I'm going to give you two." So we wanted to make sure that--

S2 16:43 Oh.

S3 16:43 Yeah. We had to make sure that it was blinded on both sides so that people did not influence one another.

S2 16:49 And that's really tough to keep everybody in the dark like that.

S3 16:52 It is because you don't want to be deceitful, right? And then that's so far from my nature, but yet we had to do that because we needed to keep the integrity of the study strong.

S2 17:02 Well, that was a fascinating study Dr. Volpe, and I'm so glad that you took the time to share it with us today.

S3 17:10 Well, thank you, Dr. Lightfoot. And it's always a pleasure to speak with you, and an honor to be on this program, honestly. I really appreciate it.

S2 17:16 Well, you're more than welcome. And I'll tell our listeners that we have a copy of that study that Dr. Volpe was referencing on the website associated with this webcast. So you can certainly go on there and pull down that article and read it, and see what the final results were. She told us about that a little bit, but you can see the scientific paper as it's written. And you know now, some of the story behind the study. And so we hope that that will help continue to illuminate what goes on behind the scenes in science to make these actual things happen because they can be quite complicated at times. Right, Stella?

- S3 17:51 They really can, Tim. Yes. Thank you. Because you know that well as being a researcher yourself.
- S2 17:57 Yep. Well, again thank you for being with us today, Stella. And I want to thank all of you that have taken the time to download and listen to us today. We hope that you will tune in next week. Actually, for the launch next week will be the launch of our HD Seven video series from our Hilliard Discussion Seven series this year. We've got another great slate of speakers that we'll be showing their video clips starting next week. So tune back in for that next week. And until then we hope that you all stay active and healthy.
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