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Adapting Our Exercise Talk: Key Tips on Counseling Patients on Exercise

Dr. Buse:

From improving physical health to mental health, the benefits of exercise are immeasurable. How can we help communicate these benefits to our patients?

Welcome to *Diabetes Discourse* on ReachMD. I'm Dr. John Buse. And joining us to talk about how to counsel patients about exercise is Dr. Abbie Smith-Ryan. She's a Professor of Exercise Physiology at the University of North Carolina at Chapel Hill.

Abbie, thanks so much for speaking with me today.

Dr. Smith-Ryan:

I'm so happy to be here. It's one of my favorite topics, so thanks for having me.

Dr. Buse:

All right. Well, to start us off, can you tell us about your background and how you got here to be working in exercise physiology?

Dr. Smith-Ryan:

Sure. Briefly, I was a former collegiate athlete and realized there was a lot of differences in approaching exercise to get people to their goals and did my master's and Ph.D. at the University of Oklahoma, and I've been at UNC for 12 years.

Dr. Buse:

Great. Let's get to where I really want to go, which is about diabetes and weight management. What are some of the key benefits to exercise?

Dr. Smith-Ryan:

Well, as you mentioned, the benefits of exercise are really immeasurable, and I think we all know that. But one of the key things as a researcher that I like to tackle is the feasibility approach. Like, we all know we need to exercise, but the questions are how do we exercise? How is it most effective? And how do we incorporate it in our day-to-day?

Dr. Buse:

Great. And with regards to diabetes the evidence, if I'm right, is that the effect is greater on A1c than on weight. Is that correct?

Dr. Smith-Ryan:

Yes, absolutely. I mean, the view when I look at exercise and diabetes specifically, you know, there's differences for type 1 and type 2. But it comes down to activating the muscle. And the muscle is a great organ for disposing glucose, and then indirectly it can support changes in A1c. You're right in identifying that exercise is not really the key way for weight loss, but it does have a powerful impact on understanding and changing the right type of weight and helping with sustainable weight loss and weight maintenance.

Dr. Buse:

And then there's all the benefits on sort of other things.

Dr. Smith-Ryan:

Right.

Dr. Buse:

Depression—

Dr. Smith-Ryan:

I mean, cardiovascular health.

Dr. Buse:

...mood, yeah.

Dr. Smith-Ryan:

Yes. Mm-hmm, absolutely.

Dr. Buse:

Great. And you bridged to it with your answer to the last question. So the key thing is how to help people be able to incorporate exercise into their daily lives. How do you go about doing that?

Dr. Smith-Ryan:

So, one of the challenges as you noted with exercise is that we all know that we should exercise, but it's incorporating it into our day-to-day life. And as an exercise physiologist, you know, we have these recommendations that are hard to meet. And so I've spent a lot of my career trying to identify how do we see the same effects with different approaches that are more feasible, and one of the things that has more awareness now is more high-intensity exercise, so whether it be high-intensity interval training or Tabata or even high-intensity resistance training. And really, it's this premise of people shouldn't and don't need to exercise for hours a day. It's really taking advantage of the short amount of time that we do have by doing more concentrated higher-intensity work, and that can be a range of things, but the physiological premise is that you can exercise higher intensity, and we see the same benefit of our, you know, more traditional exercise in a much shorter period of time.

And why that is valuable? For a couple reasons. One, the physiological response. We see those, you know, medical effects—exercise is medicine—but we also start to see dramatic effects on fatigue and enjoyment. So, one of the hardest parts of exercise is getting started, and then you don't feel very good when you do it, or it's understanding that this high-intensity exercise approach allows us to adapt faster and exercise to feel better, which provides motivation to do it again and again.

Dr. Buse:

Wonderful. You know, in my practice, so many of my patients are older and heavier, and often they have arthritis or other issues. How can we adapt the exercise talk that we provide to them to those kinds of populations?

Dr. Smith-Ryan:

I love this question because the number one response and normally what we are telling people are just, you know, start slow, walk, do low intensity; and honestly, I would—based on the science would tell you the exact opposite. Even in our clinical populations—And we've done this. I have direct experience of providing higher-intensity exercise to cancer patients, to individuals with knee OA, to overweight and obese, and it really is relying on this premise of it's all based on their baseline fitness. And then you hit the nail on the head. It is modifying. And one of the best approaches of a higher-intensity exercise is that it can be adaptable. So, for example, with our knee OA patients, I would recommend a bike where if, you know, even with limited range of motion, they are able to get their heart rate up higher than they would walking, and those adaptations are seen quite quickly, and we've even seen changes in pain. When we think about overweight and obese individuals, again, it goes back to understanding what increases heart rate. Many of them cannot increase heart rate with their walking, and running might not be the place they would start, but think about a rowing ergometer or swimming or elliptical or bike. There are so many approaches. It goes back to the premise find a fun way or a way that, you know, is not the least enjoyable and elevate the heart rate for a period of time.

And I know one of the messages that we wanted to discuss is 'what is a takeaway?' And so, I want to just be very direct, and one of the most studied approaches is to do a one minute hard one minute easy approach to exercise. And what that means and what I tell patients is "Pick an intensity that you couldn't do for longer than a minute or at a minute and 10 you really want to stop. Rest for a minute and do it again." Work up to 5 to 10 bouts, and that simple work out you can see results after, you know, sometimes one or two exercise sessions.

Dr. Buse:

That's really a great pointer. We were recently at a program for the general public, and you spoke very eloquently about the role of exercise and sort of managing some of the issues around menopause in women. Do you want to reprise some of that?

Dr. Smith-Ryan:

Yes. This is one of my favorite populations to study, and we've spent a lot of time in this. It goes back to women are often told to exercise more and eat less, and when we look at the physiology of a woman transitioning to menopause, that's the exact opposite of what we should be telling her. We really want to improve the integrity of the muscle, and it appears that high-intensity interval training

and weight training is the best approach for maintaining muscle, maintaining bone, and maintaining metabolism that changes. And more importantly, you identified this earlier, there's dramatic mental health benefits from exercise, particular the high-intensity approach. We see better effects on our kind of overall health and well-being, reduction in anxiety and depression, which is also very rampant in this population.

Dr. Buse:

For those just tuning in, you're listening to Diabetes Discourse on ReachMD. I'm Dr. John Buse, and today I'm speaking with Dr. Abbie Smith-Ryan about the benefits of exercise.

So, Abbie, if we switch gears here and focus on the patient, what's the line that you use to encourage patients to move from a more sedentary lifestyle to a more active one?

Dr. Smith-Ryan:

Obviously, you all know it's individualized, but I think this concept and the messaging that we give patients of, you know, 'Get your 10,000 steps every day, exercise consistently,' is obviously a very good message, but that's often usually overwhelming to begin with. If you're doing high-intensity exercise appropriately, you should only be able to do it a couple times a week, and we've seen dramatic effects of people feeling better. So, often times I say, 'Can you start to add one focused exercise approach in your week once a week? whether it be on the weekend or not,' and then build up to that. So we have exercise, which is a concentrated. You know, we're choosing to do something. And then we have something more like physical activity, the steps that we get day-to-day, and so I also have them look 'How many steps are you getting right now? Are you moving much? Let's bump that up just a little bit.' Small obtainable goals help them understand and make new habits.

Dr. Buse:

Wonderful. As a quick follow-up on that, any other strategies with regards to how to advance the program from there?

Dr. Smith-Ryan:

Yes, absolutely. So the one benefit is that it is always individualized, and it can always be expanded, whether you, you know, are just starting out or you're an elite individual but generally, you know, starting out once a week and building that up to four or five times a week. One message that I do like to tell patients is that we are what our consistent choices are, so you don't have to exercise every day. There's good literature that suggests try and exercise every other day or make sure that you don't have more than one day in between. And that also doesn't mean that you have to do, you know, high-intensity exercise every day. It's really this habit of movement. And one thing that's hard to quantify is just this overall feeling better. Once people do start to move their bodies, it actually reduces pain for many reasons. But especially in our clinical groups, when we have greater blood flow and actually stretching and moving the joints, there's a lot of benefits that just comes from overall body movement that can resonate in the skeleton and joint pain.

Dr. Buse:

Abbie, before we close, any other key takeaways you have for our audience?

Dr. Smith-Ryan:

I know this is about exercise, but I just want to plant the seed that, you know, nutrition has a big role particularly when we are talking about diabetes and/or weight loss, and my message is that, you know, asking people and reminding people that fueling around exercise actually has a really big impact on weight loss and overall health and well-being and so, I know clinicians have very little time with their patients, but one thing that's really helpful is to remind their patients not to exercise after they haven't eaten for several hours and instead have a serving of protein prior to exercise, whether that be a yogurt or, you know, a small meal, understanding that that will have much better implications during exercise and the benefits after.

Dr. Buse:

With those final thoughts in mind, I'd like to thank my guest, Dr. Abbie Smith-Ryan, for sharing her findings on the benefits of exercise.

Abbie, it was really a pleasure to speak with you today.

Dr. Smith-Ryan:

Thanks so much for having me.

Dr. Buse:

For ReachMD, I'm Dr. John Buse. To access this episode and others from our series, visit ReachMD.com/DiabetesDiscourse where you can be Part of the Knowledge. Thanks for listening.