

## Transcript

### Short Takes on Suicide Prevention Podcast

#### Episode 134: PTSD and Exercise

Host: Dr. Edgar Villarreal

Guests: U.S. Army Veteran, Adam Holt and Dr. Daniel Reis

[00:00:00] **Announcer:** You're listening to Short Takes on Suicide Prevention, where experts talk to each other about how research is shaping suicide prevention. This podcast is brought to you by the VA Rocky Mountain MIRECC, and now onto today's conversation.

[00:00:25] **Edgar Villarreal:** Welcome to today's episode. I'm your host, Dr. Edgar Villarreal. I'm the Director of Education and Training with the Rocky Mountain MIRECC. June is PTSD Awareness Month. Today we have the pleasure of speaking with two individuals who are dedicated to supporting Veterans recovery from PTSD, Posttraumatic Stress Disorder, both through the lens of research and lived experience.

In this episode, we're going to chat about fitness and mental health and how exercise can lead to a better quality of life. It's my pleasure to welcome our two guests Veteran, Adam Holt, the Executive Director of Outsiders Anonymous and Daniel Reis. Postdoctoral Fellow and Researcher with the Rocky Mountain MIRECC. Adam, Daniel welcome.

Will you introduce yourself? And let's start with Adam.

[00:01:13] **Adam Holt:** Thank you Edgar. What an honor to be here. I am Adam Holt. I am a Veteran, served in the United States Army for eight years. I deployed to Afghanistan. When I got back from Afghanistan, I had dealt with PTSD and addiction. And now I run an organization called Outsiders Anonymous. It is the, while there are a lot of Great organizations in Texas, it is the only free, 100% free, gym in the state of Texas for Veterans, with PTSD and individuals in recovery from substance use.

[00:01:47] **Edgar Villarreal:** Well, thanks, Adam, definitely looking forward to hearing more about the organization that you lead and the story and how you support Veteran recovery. Daniel, do you want to introduce yourself to the audience?

[00:01:58] **Daniel Reis:** Hi. Thanks Edgar. My name is Daniel Reis. I'm one of the Psychology Postdoctoral Fellows working at the Rocky Mountain MIRECC along with Edgar. And my research has really focused on the role of lifestyle and mental health. And so looking at the ways that we live, you know, kind of how we are living in line with our environment or not living in line with our environment and how that affects, you know, our wellbeing and, and kind of our ability to cope day to day.

And so. Looking at areas like things like light exposure and activity and how, you know, in particular interventions based around these concepts could be used to

support Veterans and others who are struggling with mental health problems or just general other issues like that.

[00:02:39] **Edgar Villarreal:** Well, I mean, really excited to talk to you both. It sounds like you'll really bring a lot to the discussion as we try to explore more about how fitness and mental health support each other. So, thank you both for being here. I wanted to just jump right in and get started with a question to you, Daniel.

Your article recently published, made the cover of the Federal Practitioner on Exercise to Reduce PTSD Symptoms in Veterans. So, first of all, congratulations on that, really appreciate your work. You know, we often hear that exercise has preventative and therapeutic effects in the civilian population. Can you tell us why this line of research is important?

[00:03:24] **Daniel Reis:** Well, thanks for that Edgar and really excited to have been able to do this study and I'm glad that it's found a home. And one of the major reasons that we were interested in doing this review in order to understand, you know, how exercise might be helpful for PTSD in Veterans is, you know, there are existing treatments that can work really well for PTSD.

You know, Veterans, for instance, the VA therapies like Cognitive Processing Therapy or Prolonged Exposure, they can work and they work really well. But the thing is they don't work for everyone for various reasons. And we can see that even in the studies that are evaluating how these treatments are actually playing out in healthcare.

You can see things like high dropout rates, which, you know, it can be a sign that the treatment isn't well aligned for that individual. It's not something that's working for them. And these dropout rates can be high, you know, they can be upwards of 50% or so. And so I think what this really highlights is that, you know, this one size approach, or this one size fits all approach or mentality to mental health treatment, isn't something that's going to be successful in the long term. And looking for alternative treatments, things that can really meet people with, you know, what's going to work for them and where they're at is really important.

And in particular, we're seeing a lot of interest in these complementary and alternative treatments, you know, of which exercise is one and really seeing that exercise, you know, it's well-known that exercise can have. Host of benefits for physical health. And increasingly we're seeing that research emerge that mental health, you know, we're all part, it's part of the same system and we can, we can really get effects here.

And so thinking about exercise as a really leading, complimentary approach that, you know, is something that involves a lot of different things that can work for a lot of different people and can have a lot of effects just for the body as kind of a wholeness and wellness concept in general.

So really interested in understanding, you know, where's the literature at with this? What's the evidence base so that we can, we can see what needs to be done and where we have enough support to take this moving forward.

[00:05:18] **Edgar Villarreal:** That's really interesting, Daniel and I really like what you highlighted that one size does not fit all. Right? That we really want to meet people where they're at and be able to develop options that allow us to meet the different needs of individuals that might be supporting their recovery in different ways.

So, you know, really, sounds like there's already a lot of work being done here. And, and I really appreciate you kind of bringing in that perspective. Now, when we talk about preventative and therapeutic effects, can you tell us a little bit more about what that means? What's the difference between both of them?

[00:06:00] **Daniel Reis:** When we're talking about prevention we're really thinking of, you know, something, starting something before any kind of problem emerges as a way of getting ahead of it. It's like preventative maintenance for a car or a vehicle, you know, by putting, by implementing these processes ahead of time can just kind of keep the system healthy and keep the person healthy.

Whereas, we're talking about more treatment interventions, it's more coming in once that problem, a problem has been identified and comes up for instance, you know, thinking about prevention, using exercise as a way to reduce the risk for developing Posttraumatic Stress Disorder, PTSD after a traumatic exposure? And also using exercise as a treatment.

So once the PTSD has emerged, using it to help deal with the symptom burden and restore the person to the kind of healthy life that they're looking to live.

[00:06:45] **Edgar Villarreal:** Great. Thank you for sharing that. And you know, one of the things that you mentioned in the article as you're looking at the benefits of exercise, is that you were really interested in seeing if these benefits extended to the Veteran population, especially because there's more unique experiences and what we call comorbidities.

Can you tell us a little bit about what that means and what makes studying the effects of exercise on the Veteran population more challenging?

[00:07:16] **Daniel Reis:** I think in general, you know, we come up with these research findings, we're using samples of participants who were willing to share their time for research and oftentimes conclusions can get really generalized. And one thing that we can see increasingly in research is that, you know, that's not necessarily the case.

And so it's important to really, you know, look at the populations that we're seeking to help, you know, in particular Veterans. And Veterans, like you were mentioning, can

have really unique trauma exposures that civilians aren't being exposed to. For instance, combat is one of the main that comes to mind.

And as you said, you know, oftentimes Veterans through, through the kind of things that, that they may be exposed to and kind of those experiences can have a lot of either physical or mental health comorbidities when we say comorbidities, we mean just the presence of other diseases or illnesses or disorders, and, you know, that can kind of just make from a treatment perspective, from even a prevention perspective, just different considerations.

And so really thinking about, if we're thinking about health, that's kind of this whole function, really thinking about helping the person, from a broader perspective, we need to consider more than just narrowing down on one specific disorder, like PTSD. Another reason I'm excited about exercise is, it's something that has really broad effects on the body and the mind. And so it can make it such a natural fit for addressing, multiple, for multiple comorbidities at the same time, physical and mental health.

[00:08:43] **Edgar Villarreal:** And can you tell us, you know, what types of exercise were reviewed across the studies? Now full disclosure, my extent of exercising is just walking a lot, and I can imagine that different people have different approaches of how they stay active. So can you tell us a little bit more about what types of exercises were reviewed?

[00:09:02] **Daniel Reis:** Absolutely. And, you know, just to preface it really, when we're talking about exercise, you know, the great thing is it can mean so many different things. And so walking can certainly be a great form of exercise, you know, really thinking about the physical activity. However it works for you to get that can be what's most important. In terms of, you know, specific studies that we were able to find that we're specifically looking at some kind of physical activity based intervention and the, and that's the definition we use for looking for these studies was broadly, you know, any kind of physical based intervention that was kind of designed to kind of provide a therapeutic effect. And we did see a kind of a range of it. You know, there are two different study types that we were looking at in this review.

There were the single arm studies as we call them, which were really just the, there was only a single treatment group. There wasn't a comparison group. Most of those tended to use yoga interventions. And then there were these, what we call the randomized control trials, where it was specifically, there were two.

There was an exercise intervention and comparison control intervention, participants were randomized to one or the other. And we saw more variability in terms of the exercise. There are only three studies that we were able to find for this review. And each one kind of took a different approach to exercise.

The largest, went with yoga, also kind of a holistic yoga approach. Another one went with an integrated exercise. So kind of combining different modalities of exercise,

things like aerobic or weightlifting. And then the third study did the same thing is to specifically, combine strength, training, and aerobic exercise for their intervention.

[00:10:33] **Edgar Villarreal:** And what did you notice in terms of, you talked about the effect sizes, how are these findings similar or different than what is being seen in civilian samples? Because you all were specifically looking at studies that focused on Veterans.

[00:10:50] **Daniel Reis:** In terms of kind of the magnitude of the effect or thinking about, you know, what degree of symptom reduction did we see, really did see that this effect was in line with what we're seeing with regards to exercise in civilians and combined, kind of studies or meta reviews as well. And so really just right up there in terms of offering this moderate benefit, now that being said, you know, a moderate benefit, you know, it's not as large as we would like to see, would love to see much larger and stronger effects.

But again, you know, I think we're looking at an average effect here and certainly going into more individualized treatment, you know, exercise is going to work great for some people, probably not going to work great for others. And we're seeing that in these overall effect sizes, but what is great, so I've noticed here is that we're seeing effect sizes in line with what we're noticing for other treatment approaches. So certainly supports exercise just as well as you might see, you know, other approaches including therapy or medications. Now that being said, some of those kind of gold standard treatments I mentioned earlier, like Prolonged Exposure, Cognitive Processing Therapy for people who it does work with, it tends to have larger effects.

[00:11:56] **Edgar Villarreal:** And were there any similarities that you all noticed in terms of how often people exercise versus how long that could help further explain the findings?

[00:12:08] **Daniel Reis:** In general, I think most at a minimum we were looking at about an hour, once a week in terms of the more active parts of the intervention. Interestingly, most of the interventions also had to kind of do it at home component also. So, you know, providing more of a led activity, once or twice, or a few times a week.

And then also offering materials to support the person, doing the exercise at home. In general, like I said, about an hour once a week, some certainly did increase it to multiple times a week. And generally again, we're seeing fairly similar, I'd say effect sizes across those meaning that we do see the things with different durations, tend to work.

Now that being said, these interventions did go on for at least a few months. And so some evidence there that you do want to get into that routine and have some of that longer term exercise to see the effects.

[00:12:59] **Edgar Villarreal:** No, That's really interesting Daniel and hang in here with us for just a bit, because I'm going to transition now over to Adam who's going to be able to provide to us a little bit more information from the perspective of someone who offers these options and has an organization that's dedicated to really offering these opportunities for people that are trying to support recovery in this way.

Just out of full disclosure, before I turn over to you Adam, I wanted to let the audience know how we came to be here, how we know each other. Adam and I actually went to undergrad together, back in what, 2001, 2003, right? Yeah. It's been so long. I don't want to talk about dates, but you know, it just so happens that, you know, since we were undergrads, we were both a part of the Texan A&M Corp of Cadets which is an Army ROTC program. And we just took both different routes. Adam went on to go into active duty service. And he's going to talk to us a little bit about his experience, while I moved on to join the field of mental health. And it just so happens that our paths are converging again, and we're both supporting mental health in different ways.

So Adam really great pleasure to have you here and to reconnect with you in this way. So thanks again for being here with us.

[00:14:29] **Adam Holt:** Oh well, Edgar it's my honor, what Edgar or what Dr. Villarreal didn't mention is that part of my story involves some pretty dark paths and suicide attempts. And there was a point where everything was black and I had nothing. And the only person that would answer the phone was Edgar. And I am here today because of him.

So it is a little deeper relationship than just going to school together. So thank you Edgar.

[00:14:59] **Edgar Villarreal:** Absolutely. Now, thank you for sharing that and, you know, I'll always appreciate the moments that we've had together and just happy that I've been able to support you and that we've been able to maintain our friendship for as long as we have. You know, since you brought up the topic of, you know, what your journey has looked like, I wanted to see if you could share with us, what does lived experience in recovery mean to you?

[00:15:30] **Adam Holt:** Well, I think, especially for me, recovery just means a removal from a hopeless state of mind and body. And for me, that looks very complicated, because although I struggled with addiction and substance use prior to my time in the military, the deployment to Afghanistan really exacerbated a lot of those issues.

So I deployed to Afghanistan in 2010 through 2011. And while I was over there, some things happened and I came back and it was very hard processing some of those things. And I managed to begin the route of processing those through substance use, through alcoholism. My marriage fell apart within a few years, I was homeless.

I'd been in multiple psychiatric facilities, attempted suicide. I was on the cusp of being a statistic, like so many Veterans. But, or and, I have since, through a big part, through physical fitness found recovery and I no longer am at risk for a lot of those statistics. Now I consider myself a statistic on the other side.

[00:16:51] **Edgar Villarreal:** Thanks for sharing that, Adam. And, you know, you mentioned there at the end, the role that exercise has played. Now when you look back at your journey, you know, when did you begin to notice that you wanted to use exercise as a way to support your recovery. Was that something that was intentional or did you just kind of fall into that as a resource for support?

[00:17:21] **Adam Holt:** It's a great question Edgar. And I think it's a little bit of both. So when my recovery, both from substance use and from PTS symptoms started to take root, I was still homeless, but I found my way into a halfway house. And then from there I was housed in a small apartment in North Austin and literally twenty feet from my apartment door was one of the oldest, dirtiest, nastiest gyms in the entire city. And I went and I talked to them. I told them my situation and they gave me a free membership. And at the time my sponsor and also my therapist at the VA, they both told me I need to just run from relapse.

And I was just so desperate for anything to work that I actually took them seriously. So I'd go run on the Greenbelt when I had a craving, even if it was two in the morning. And then eventually I started going to the gym and I would go lift weights, or if they were closed, because a lot of times these symptoms come in the dark of night, they had a tire out back and I bought a sledgehammer and I would just go and I would beat on that tire.

And I would flip that tire. And over time I noticed that not only were my symptoms going away, but I was actually able to sort of experience a lot of emotions that I wasn't able to experience earlier in my recovery journey, prior to incorporating exercise.

[00:18:49] **Edgar Villarreal:** So it does sound like it's a little bit of both. It sounds like you were given that opportunity and then you ran with it. Literally.

[00:18:56] **Adam Holt:** I did. Literally.

[00:18:58] **Edgar Villarreal:** It sounds like it just opened a door. It really kind of allowed you to release. And you know Adam, I've always known you to be a very active person. I can remember back in undergrad, not to take our audience through memory lane, but you ran, you know, triathlons, you were a triathlete and I've always known you to be a runner.

So I know exercise has always played a big role in your life. So could you speak to the role that exercise and physical fitness typically plays in a Veteran's life prior to separating from military service?

[00:19:34] **Adam Holt:** Yeah, I think for most Veterans, true for me of course, physical activity in the army or in the military is generally a requirement or a chore. It's something that we have to do, something that we're required to do and that we all suffer through. And so it's easy to burn out from that type of physical activity.

When you get out of the military, people want to stop running. They want to grow their beards and hair out and just rebel against these things that they were forced to do. So, I think that in the military, it's very, very structured.

[00:20:12] **Edgar Villarreal:** Yeah. And it sounds like it's kinda more like a means to an end that it's a part of your job. And it becomes a part of what's expected of you and in the military were you already getting messages that exercise and physical fitness was meant to support mental health, or did that come after you maybe separated from the military?

[00:20:34] **Adam Holt:** So I got out of the military in 2012. And I don't know if my entire eight years in, I heard the words, mental and health in the same sentence. And so I, I don't know if there was as much of a focus on that. Things might be different now, but at the time I don't believe there was.

[00:20:55] **Edgar Villarreal:** And what role do you think exercise now plays for either yourself or other Veterans after the military?

[00:21:03] **Adam Holt:** Well, I think you said it very well as, how exercise was a means to an end. And essentially it still is. But it's an end of my choosing. And so I have these symptoms associated with PTSD. I have these experiences associated with addiction and all these struggles I've been through. And the goal, the end goal that I want is to not have to live with those impacting my life as much.

And so when I look at it in that way, using physical fitness as a means to that end allows me to sort of capture a lot of the things that we experienced in the military, that were ingrained deep inside my bones in the military and utilize them now as a benefit to my life.

[00:21:53] **Edgar Villarreal:** Yeah. And, I mean, to take it a little bit beyond that, cause it's not a, I think, a benefit to [only] your own life and I really, you know, resonate with that idea that it's a, an ends of your own choosing, right. That you're using it to support something that is as important and meaningful to you, but you're, you're doing that to help other people.

So tell us about Outsiders Anonymous.

[00:22:17] **Adam Holt:** Outsiders Anonymous originally started as a culmination of a few years of research at UT just looking at the biological effects of physical activity in the brain during early recovery. And although it's very difficult to demonstrate because of a lot of confounding effects as Dr. Reis mentioned, associated with

physical activity, the biological effects on the neuro-transmitters and a lot of dopamine receptor sites in early recovery are just astounded.

And so we established Outsiders Anonymous because we were armed with this information, that it's a key to allow people in recovery from PTSD, allow people in recovery from substance use to take control of their lives, to experience emotions in order to act as a complementary approach to traditional therapies.

And so we started Outsiders Anonymous just in a park. It was just me with some kettlebells and a good attitude, most days, and people started coming. COVID happened and yet we sort of persevered through that. And just about two weeks ago, we opened the first 100% free fitness center in the state of Texas. And we're trying to create an active, sober community here in our county, just south of Austin.

And so, Outsiders Anonymous was born out of this, like, deep understanding of what fitness can do for people who are really struggling with trauma and with substance use disorder.

[00:23:53] **Edgar Villarreal:** Really impressive and really exciting. Congratulations on being able to do that. I mean, what an amazing resource for the community and for Veterans in your community. Now, you had mentioned that a part of what started Outsiders Anonymous is kind of this need to be able to support alternative treatment.

Dr. Reis noted that in the article that Veterans are demonstrating more interest in complementary and alternative treatments for PTSD. What makes this appeal to you and other Veterans? Why are alternative treatments important?

[00:24:29] **Adam Holt:** Well, yeah, so I think that with fitness specifically, there are a lot of really intrinsic benefits that might not be associated with other forms of treatment. With physical activity, you get the instant gratification, not only of completing something that you thought was unattainable, but you also get the instant gratification that comes with the neurochemicals that your body produces during physical activity.

So it's almost an immediate reward system where you workout and then you feel good. And another thing is that people can do it wherever they are. They can do it by themselves or in groups. And there's a wide range of physical activity modalities that people can engage in so that it really meets people where they are.

If you're interested in heavy strength training, you can do that. If you're interested in just walking, we see benefits from just walking. And so it really is able to be flexible to the needs of any Veteran, anywhere that they are.

[00:25:25] **Edgar Villarreal:** Now that's really helpful to hear. And I know, I remember you mentioning that, you know, it's an immediate instant effect that sometimes people feel. When did you first start noticing the benefits of physical fitness in your own recovery?

[00:25:40] **Adam Holt:** So I had been back from Afghanistan for three or four years, using off and on trying to go to the VA to seek treatment. But the way I explain everything, it's like I was seeing the world in gray scale. And like, nothing was exciting for me. Food didn't taste good. Movies weren't funny. It was just like life had this dull sheen to it.

And then when I started working out again, when I started being active, it was almost as though life started having color back to it. And it's really hard to explain if you haven't experienced it. But like I found myself laughing more and I also, I found myself crying more. I found myself able to just experience emotions where I had almost turned those off for so many years. And so it, it really acted to allow me to experience life so that I could then show up and work through it.

[00:26:44] **Edgar Villarreal:** Sounds not only powerful, but just, you know, transformative, I mean, talk about it, really opening doors and showing you a new perspective. And so you talked a little bit about how it's impacted you. Could you share with us what impact have you seen on the Veterans that Outsiders Anonymous serves?

[00:27:07] **Adam Holt:** Well, a lot of Veterans that come to us are very alone and very lost. I certainly know that I was. And so aside from all the benefits of physical activity that we've mentioned, what we try and provide is a community, which is just another layer of something that physical activity can provide. If you go on a three mile ruck with someone, or if you are doing a brutal 30 minute workout with someone, if you are doing a partner workout or just engaging in physical activity with someone there with you automatically you're suffering together, which breaks down these bonds, which creates a little fraction of what you experienced in the military.

And so people are coming to us just lost because they don't have that brother or sisterhood that they had in the military. And then we give them the ability to experience a little bit of that suffering so that they can be a part of a community. And so not only is the physical activity an aspect of it, it's sort of just a foot in the door to all the other underlying psychological benefits.

[00:28:17] **Edgar Villarreal:** Yeah, it sounds like really not only giving people the tools or the resources, but the connection, right? The shared experience of, you know, experiencing some of that heartache or some of that like you said, that suffering that you may have experienced in the military. How do you hope to grow and support this effort in the community?

[00:28:39] **Adam Holt:** I think that's pretty early for that question, Edgar. We are very excited to be where we are. Things have moved pretty fast and being just having been open for two weeks, we are very honored and blessed. Of course we would love to grow and be able to have a facility where we can host Veteran events and do things like that.

But I'll be honest, unlike a lot of organizations, we're pretty happy with where we are right now. And we're very grateful to just be able to serve the community in the areas that we are.

[00:29:19] **Edgar Villarreal:** It sounds like you're busy in a good way. There's a lot of good things to come. You know, hopefully you're really kind of trailblazing there and setting a model for others, not only in recovery, but also how we get to support Veterans.

So as we close, I have one question for both of you. Are there any closing thoughts for Veterans that might be listening to us today that are questioning how to support their recovery? And, Adam, I'll start with you.

[00:29:53] **Adam Holt:** Yeah, you bet. So, I know on this podcast I've been sort of lighthearted and happy. But as I'm sure many people that are listening to this, many individuals, I've experienced a darkness that is deeper than any black you can imagine. And there are people out there that know. I have attempted suicide and just wanted it all to end.

And I do not know if I would be the man I am today, with kids and a wife and a business. I don't think I would even be alive today if it wasn't for the benefits that physical activity has had in my life. And so I'm a very huge proponent of it. And it doesn't have to be some brutal hour and a half crossfit workout.

Just going for a walk will change someone's life. And so if someone is listening and if they feel all alone right now, just the aspect of going out for a walk and maybe saying hello to someone will change your life. And so, I really encourage people to incorporate physical activity into their recovery program as a complementary approach. It saved my life and I'm sure it can save yours.

[00:31:15] **Edgar Villarreal:** Thanks, Adam. Really important message there of, you know, of hope and staying engaged and staying connected. And then finally, Daniel, any closing thoughts on your end?

[00:31:27] **Daniel Reis:** I think really just to second, what Adam is saying. And, you know, from this research perspective, it really is that there are more options than I think typically get portrayed in terms of treatment approaches. Things like that can help boost mental health, things that can target PTSD. You know, we're seeing that with exercise, you know, it is something that can work great for people.

And just seeing that, you know, there's a lot of different treatment modalities. And finding what works for you may take a little bit of time, but really there are a lot of options out there that can be explored, even if we don't give that the attention, the number of options, the attention that we should sometimes.

[00:32:07] **Edgar Villarreal:** Absolutely. There's definitely many more options than what people may realize. So I appreciate you putting that plug in for those options

Daniel. Well, you know, that takes us to the end of our episode today. Again, I want to take the opportunity to thank both of you, Adam and Daniel, for the important work that you're doing and bringing awareness to mental health, bringing awareness to suicide and Posttraumatic Stress Disorder and being able to support Veteran recovery in different ways.

So thank you both for being here today with us.

[00:32:43] **Adam Holt:** Thanks for having me Edgar it was such an honor to work with you.

[00:32:48] **Daniel Reis:** Yeah, thanks so much for having me as well.

[00:32:49] **Edgar Villarreal:** And thank you to our audience for tuning in today. Thank you so much for joining us.

[00:33:00] **Announcer:** That's it for this episode, you can find more Short Takes on your favorite podcasting app. And if you like what you hear, subscribe to the show and give us a review. Until next time you can follow us on Twitter at RMIRECC. We'll see you then. Take care.

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