CASAT Podcast Network

Welcome to season five of CASAT Conversations, a holistic look at mental health.

Join us for a series of thought provoking conversations that delve into the vast dimensions of mental well being from the intricate link between physical, emotional and spiritual aspects of well being to the latest scientific research practices and therapies.

We navigate the multifaceted landscape of mental health together.

We hope you enjoy today's conversation.

Welcome to today's conversation.

Today we have Dr. Felipe Schuch. Felipe obtained his master's and doctorate degrees in Medical Sciences and Psychiatry from the Federal Federal University of Rio Grande de Sol.

He is currently an adjunct professor at the Federal University of Santa Maria.

Welcome Felipe.

It's nice to have you here today.

Thank you very much hitter for having me.

It's a great pleasure for me to talk with you all.

So as we get started, I'd love for you to just share a little bit about yourself so that our listeners can get to know you and understand your work well, thank you very much.

Yes.

Uh So I graduated in physical education like exercise sciences here in Brazil.

Uh And I haven't been working in the mental health field area since 2008 probably.

Uh and my major research focus is in trying to understand how physical activity and exercise in movement in general can help people with mental health problems and how to, how to, how, how exercise can make people feel better.

This is basically what I'm trying to understand very briefly.

Awesome.

Well, I can't wait for you to share your research with us.

It's such an important topic as we look at mental health holistically.

Um As we dive in, can you just share with us some of the physical um some of the physical and mental benefits of physical activity, I feel like physical activity from a public health perspective, right?

Like it's like we all know we should be exercising um and that there are benefits, but if you can just highlight those from your perspective, everybody knows that exercise have physical and mental health benefits.

Uh And obviously, I'm much more interested in trying to understand what are the mental health benefits of exercise.

And we have seen some research that we have published in the past years that for example, the more active people, uh they are more, they are less likely to develop depression and anxiety.

For example, one study that we published in 2018 in the American Journal of Psychiatry, uh demonstrated that those that have higher levels of physical activity are are about to 17, less likely to develop depression.

Uh And in another paper published in 2019, we have demonstrated that uh physical tip has protective effect, uh effects against anxiety, um diagnosis and symptoms.

Uh And the protective effect is about uh to 23%.

So, basically, uh what changed in the past few years that we could provide an estimate of the effect size or understand more precisely how much exercise is beneficial in terms of protection uh against mental health problems, mainly depression and anxiety.

And some other uh of our findings is are that um physical activity uh that any physical activity can be beneficial.

Like we know, for example, from a pub, a paper published in 2020 that uh we don't need to uh spend lots of hours exercising.

And we know that, for example, every step counts, we know that even little amounts of physical activity can be related to a lower risk of developing depression.

And uh that's a good match message for uh in terms of public health because uh some people may find challenging to achieve the public health recommendations of 100 and 50 minutes of moderate and vigorous physical activity per week.

And as long as we can say that we, you can already get some benefits from lower amounts.

It may facilitate for some people to engaging at some level of physical activity.

So, uh yes, this is something that's quite interesting from our perspective.

And also uh we have seen that especially for people with mental health problems, physical activity can be beneficial for their physical health.

Uh because as some colleagues demonstrated that people with mental disorder there, they have a life expectancy shortened by 10 to 20 years depending on the diagnosis and other uh comorbid conditions.

But we have seen that the life expectancy is lower in this in this population.

It this is uh it can be largely attributed to other physical health conditions, like metabolic diseases, like diabetes, like hypertension and other conditions.

And we know that physical activity can reduce the risk of developing cardio metabolic diseases.

So this can be particularly beneficial for this population and for this group, it also, I think speaks to that inner inner connection between the mind and the body.

Um And I'm curious, you know, from a directional standpoint, like how does the, how does physical activity impact the mind?

Well, there are many, many ways uh uh basically, we uh try to understand uh the the the the effects of his creativity uh in the using the neurobiological perspective or using the psychosocial perspective.

Uh We believe that physical activity can impact the mind through uh for example, improving self self esteem by improving self efficacy.

Like uh something that's quite common for people with mental health problems is there is low extremes like they feel that they can't do anything that they feel they are not capable of doing anything they don't have energy and they think that they are, uh, they will fail in everything they try to do.

And eventually when you start to exercise with someone with depression, for example, and you can demonstrate that he or she is able to exercise, to do some uh amount of physical and have success in that.

That's something that's quite beneficial.

And people, when they experience success in exercise, this feeling can be translated to other areas of the individual's life.

And this feeling may serve as a motivation and to try new things and to change the behavior in many other ways.

So these are some uh aspects and some benefits of of the exercise.

And also we have some, some other mechanisms relate some other uh uh psychosocial mechanisms relates to the feeling of being connected to other persons.

So while you are, you are exercise and eventually you are connecting to other people and these uh unspecific effects of exercise of being connected to other people of uh socialization, like you can say, uh can also have some impact and can explain some part, a part of the effects of exercise and mental health uh some other mechanism.

And during the pandemic, we could uh note how important it is is a distraction a when we are exercising, we can like focus in other things, not staying reining in our bad feelings, in our bad moods and eventually just thinking something else that's not uh our negative feelings can make us feel a little bit better but also uh about the neurobiological mechanisms.

We have some uh potential explanations that relates to the effects that exercise may have on neuroplasticity.

Like we know that people with mental health disorders, they uh have structural and functional changes in the brain.

Uh And we know that exercise can change and can impact some uh brain structures like the hyper campus, for example.

So we know that depression is associated with a lower uh a smaller uh hyper campus.

And we, on the other hand, we know that exercise can increase the hyper campus volume.

So it's a potential, uh there's a potential link in this uh what?

So in one exercise can increase the hippocampus and maybe these increase can be associated with uh symptom improvement.

Uh Another potential mechanism relates to inflammation.

So we know that people with depression, they are in a pro inflammatory state like they are inflamed uh systemically.

And we know that acutely exercise increase inflammation because there is muscle, muscle damage and uh the release of some pre inflammatory markers.

But there is uh an adaptive response where it in subsequent to the uh pro inflammatory markers release.

There is a, there's the release of anti inflammatory markers and this up regulation may be beneficial to people with mental health disorders.

Uh as we know that people with depression and anxiety and schizophrenia, but other disorders, for example, they have uh they are in a prim state.

So maybe exercise can make can bring balance to the system and this can explain part at least the effects of exercise uh on mental health outcomes.

Thank you for highlighting all of that.

Um especially the brain structure, right?

Like how exercise can, can change our brain structure?

Um It's fascinating.

I'm curious.

Um does it matter what kind of exercise you do?

Um in order to support mental health, like are there certain types that are better for mental health or what does that look like?

The best exercise is the one that is actually done?

So that's a very important question.

And we have seen some Met analysis that actually doesn't matter that much.

What kind of exercise, uh if it's aerobic or if it's an aerobic or in other words, if it's running, if it's uh walking, if it's strength training, it doesn't matter that much.

The effects are quite similar.

But we have seen that the context of the exercise or what's, what is related where the exercise happens when it happens and who is together when you are exercising and are potentially more important than the exercise type itself.

We have seen for example, that the domain of the physical activity and the exercise matters a bit more than the uh the type of physical activity like domain, I means uh doing exercise and physical activity for leisure for fun may be more beneficial than doing exercise when you are commuting or uh or physical activity or exercise when you are working, for example, or, or physical activity for uh home chores, like it's, it's much different.

So we have seen that for, for example, people spending long hours uh on physical activity while they are working, they may have much less benefit and, and even some detrimental effects on mental health outcomes uh compared to people that are not engaging in that much physical activity.

So uh doing exercise because it's fun because you enjoy because it's the activity that makes you feel better uh is much more beneficial than just doing exercise because you have to do because it's part of your, your work.

For example, that makes so much sense to me.

I work with a researcher, Dr Brent Ruby who has studied Wildland firefighters and he studied them across the course of a season and they, um in his research, he's found some deterioration at the end of the, the wildland fire season.

Um And right, that's, they're doing an incredible amount of physical activity in their work, but it is connected to work and not to the leisure and the fun, which is really interesting.

Yeah, indeed, it seems that having fun and enjoying the activity is an important factor for, for having some benefits from that.

So if you are doing something because you are obligated to do not the same fun and not the same benefit.

There is an interesting uh paper from Marcus Gerber from Switzerland where, uh, the title is no fun.

No gain.

That's like the opposite idea of the no pain, no gain.

Uh, way of thinking.

And that's basically highlight the importance of enjoying the exercise that having fun when you are exercising because when you are having fun, having fun may potentially the benefits and the effects of exercise.

I love that.

It's so counterintuitive to a lot of the ways that I think people train sometimes, right, that no pain, no gain.

Um, and I love that.

No faint, no fun, no game.

That's really cool.

Yeah.

So I think that there is no pain, no gain.

Um, it's the, one of the worst things that happened to disconnected and exercise area is the worst massive possible because it's quite easy to make someone feel pain and feel uncomfortable when you are exercising.

And obviously people that are just not feeling comfortable and are experiencing pain, they are less likely to engage in physical activity and exercise.

And this is one of the reasons that we believe that many people just don't like exercise because the focus has been so much in trying to improve fitness and trying to be, uh, in trying to change their body composition.

And when they are trying to do that, that they just ignore their feelings, they just ignore that they need to feel well to engage in a behavior and they are just putting so much effort and just ignoring that you know, to be sustainable, the any behavior, it must make me make you feel good and also bring, bring benefits and bring changes and you have to achieve aims.

But to be sustainable, you have to, to feel good while you are doing something.

Well, it also makes me think about like part of the benefit of physical activity is to support, you know, your physical health, um which is your body.

But if you're punishing your body, then it bodes that it might not actually be the best for your physical health.

Like if you're, you know, whereas if you're caring for your body and doing something that feels good that that would have better benefits.

I mean, it just, it, it makes sense now that you explain it that way.

Yes, indeed.

So, yeah, the exercise that makes you feel good the best one.

So, in the most, the most sustainable one as well.

And as I said, the best exercise is the exercise that is actually done and to be engaged in a long term and just try to find out the best activity that makes you feel better.

And when we think about length of time, you mentioned a little bit, you know, that a little bit is better than nothing.

Um, but I'm curious, you know, I guess we always want to know, um, kind of like that minimum dosing effect.

And so what, you know, what is that minimum dosing effect?

Yeah, that's a good question.

So in one paper, we could calculate the minimal effects that to have some benefit.

And we actually seen that uh during the half of the public health recommendations, about 75 minutes of moderate vis per week is already associated to about 15, less like lower chances of developing depression.

So uh that means about to 15 minutes per day can be already associated to a lower risk of developing depression.

A and it's, it's much easier for, for a vast, the vast majority of the population that are not active to achieve 75 minutes, they are achieving 100 and 50.

So, and that's a quite important public health message and saying, ok, you should just doing physically 15 minutes per day, you can already benefit from exercise.

I'm curious, why don't you think that that's part of the messaging that we use?

Because I mean, it's like the 150 minute, you know, it's, I I mean, I don't know, I'm just curious if you have any insights on that.

Yeah, we have just demonstrated that past year and uh eventually the public health message is not built on quite recent evidence and they are built also considering other health outcomes.

So for achieving metabolic benefits, you may need a higher amount for achieving, for losing weight, you may need to spend more time in physical activity.

Uh And mental health, we can say that mental health is being largely ignored on public health guidelines when we think about yeah uh on mental health benefits.

So uh even for the guidelines that are developed for mental health professionals, uh mental health has been receiving very little attention.

So even uh for the ones that are graduating in studying exercise, the focus is being on how can we improve?

Strange how can we improve aerobic capacity?

This is what has been trained on.

Uh and we have been very little, uh we have been receiving very little training on how to make people feel good while they are exercising.

And this explain in part the lack of attention that guidelines from all areas uh can give to or given to mental health outcomes.

Yeah, I really appreciate that insight and um also aware of how little of attention is given to physical activity and the connection to mental health.

Um I mean, that's really why, why we're sitting here having this conversation today is because I want to make sure that that's highlighted, but that interconnection between how physical activity impacts the brain and and is a protective measure for depression and anxiety is something that largely is missing in the message, in my opinion.

Yes.

And this is part of our current work is trying to advocate uh to uh for spreading this message and that we should acknowledge the importance of uh mental health in public health guidelines in guidelines that are trying to promote physical activity.

And more than that we have to uh understand that making people feel better and not feel bad when they are exercising is something that's quite, quite important.

They're valuable.

Absolutely.

I'm also aware of our evidence based world.

Right.

And in order to become evidence based, you're looking at research that's at least a decade old, if not more.

So I tend to prefer evidence informed so that you're utilizing the latest research um, and adapting to what we know today versus um something that we thought 10 to 15 years ago.

But I, I don't know, I'll get off my soapbox now.

Yeah, we have some evidence, for example, that some evidence uh takes about 20 to 30 years to be applied in their fields.

So what I have been researching now may take decades to, to get through the, the right population to, to be know and using by the ones who shouldn't use it.

So there is a huge gap gap between what is being written and being published and what is actually being applied in the, in the field.

Yeah, that makes so much sense to me.

Um Can you speak to?

I mean, we've been talking about public health.

Um and I'd love for you to speak to the psychological determinants of physical activity.

Mhm So yes.

Uh something uh we are have been using and applied one theory of the self-determination theory that it's how it's called it.

And this theory uh basically says that we have three basic psychological needs and these basic psychological needs are autonomy, our competence and uh is um connected in us.

So basically what this theory says that when you are doing something because you wanna do you, this something, this behavior uh is more likely to be sustainable and it's more likely to make you feel better when you are doing it.

Uh when you are doing something that you feel competent, it's the same.

So you fulfill this basic psychological need.

And when you are connected to this behavior in somehow it's more likely to be sustainable and to make you feel better as well.

So that's quite, quite interesting because we have seen the crust phenomenon, I think in new is pretty much similar and the crust works very well with this theory in the sense that they create uh at least here uh from my experience in Brazil, they create a sense of connectedness.

They, they have like a strong community sense.

They are, they have behavior that they adopt that make them identify as being a, a of crossfit and they work with the sense of competence where everybody is trying to stimulate the others and to make them uh complete and achieve the activity and achieve the goals and achieve the aims.

And they are working hard for that.

Uh just a sense of autonomy that's not uh eventually uh that much um valid, valid.

But the other two overweight, this uh this lack of autonomy eventually.

And the in the sense that people, you, you can see from a distance that uh someone is practicing across it.

For example, if you were, you talk to someone who is practicing crossfit, they will make very clear and very quickly that they are what they are doing crossfit.

And this is quite interesting from this perspective because it works with the fulfillment to at least these psychological needs.

And so what I'm trying to, to, to, to uh discuss here is that when you do something, uh because you are doing it from your, uh because your, your own, because something that you enjoy, because it's something that you, you can see some value and this is a behavior that can be sustainable in the long term and that you have more benefits.

Uh And when you are, when you achieve success in that activity in that behavior, when you are exercising and doing something that makes you too competent, it's more likely to be beneficial for you no matter how.

And if you do something that any activity that make you feel connected to that activity, to that environment, to that, to that, to that society, from that group to that person, so that's the best activity for you.

And this is interesting because when you uh when you see what's being in the field, eventually, if some people are going to the psychiatrist, to the doctor and the doctor say, ok, now you have you have depression and now you have to walk or to run for 30 minutes every day.

And some people say, ok, but I hate walking.

I, I hate running.

That's something that I just don't want to do.

But I would be very happy in going to the gym or I would be very happy in cycling or I would be very happy in, in swimming and why not.

Uh, at the, as I have um said, uh earlier, the best exercise is the one that you do do and the exercise you enjoy is the one that's more likely that you just do it.

So when you have these uh determinants and these basic psychological needs fulfill it, you are more likely to engage in this behavior.

So even even a small little success in some activity make can make you feel better and why not?

So this is a change in the perspective on how we should uh think about exercise.

The main aim here is trying to promote well being is trying to make you feel better.

So we have to reframe all the associated uh factors.

We have to work with this logic and trying to change everything in terms of making people feel better well, and I also think about what you said, you know, the term movement, right?

I use the term movement instead of physical activity because physical activity can be really triggering for someone who has a complicated relationship with it.

And so I hear what you're saying about like we need to really shift perspective um to find things that people enjoy doing, right?

And that's going to be different.

You know what I, how I enjoy moving my body is likely different from how you enjoy moving your body.

So there's the autonomy piece, right?

And I would imagine like that's inherent in the crossfit community because they enjoy moving their body in that way, right?

And they chose to be part of that group too.

So I love, I love that.

So putting all that together, um I think you've kind of touched on it, but how do we get people to move?

Hm.

That's one question.

So uh the response is very much individual.

Uh and I wouldn't ask you, how would you make someone eat better?

And the best answer is trying to understand the relationship of the food or trying to understand the relationship of that, that person has that or the relationship that that person has with movement.

So the best way to make someone move is trying to understand what are the barriers that that individual uh face and trying to understand what would be feasible in that context.

Uh The individualization of the prescription of exercise and physical activity in general is the best way to deal with it.

So there is no single answer for that.

The first thing is trying to understand the, the exercise that people values the most the exercise that, that that person has the best memories with.

So uh for example, for as for people that just hates doing string training, you can try to promote, but it would be more challenging if someone will just uh register at the dreams, try and maybe try to go 12 times.

And then we realize, oh, this is nothing, there's no value here.

I'm, it's not for me.

And so the best, the first thing is trying to understand the effective experience that that person has with different types of exercise and then start doing.

So the second thing is, is uh value evil that and discussing that even little amounts of physical activity can be beneficial for some people that are not active.

Uh achieve the public health recommendations may be quite difficult and quite challenging.

So value that even little amounts can be beneficial in terms of mental health can motivate people to keep engaging in exercise.

So once again, it's trying to change the relationship that that person has with exercise.

Lots of people uh when they hear that they should exercise, they have no exercise.

It's painful.

It's bad.

I don't, I don't feel good.

It's uncomfortable.

And why don't we try to explore what we would be the best option for that individual for?

And that the best option.

I mean, again, not just the exercise type, but every aspect of the context, like some people may enjoy exercise, hearing some music without having any contact with other persons.

And some other people will enjoy exercising with some other people.

So this is something to be explored.

Some people will say, ok, I I love exercising in the at the evening and some other people will prefer doing very early in the day.

So every factor should be accounted uh when we are trying to discuss how to incorporate physical activity in someone's life, then every detail should be accounted for and everything should be discussed.

And some people will say like me, oh, I, I love doing intense effect, intensive, uh intense and vigorous exercise.

And this is not something that most people enjoy.

But if I'm just doing a brick brisk walk, probably this is not interesting for me.

So that's not fun at all.

So, but if I'm going to the gym and pushing the heaviest weight, I can, well, that's fun for me and that's why we don't have a single answer for that.

But the we should, but we have many factors that we should have accounted for and every person has its personal factors and its personal relationships.

And this the other way is, yeah, that makes perfect sense.

Um I am our National Board Certified Health and Wellness coach and I remember years ago um sitting in a public health class, thinking about lifestyle factors and their impact on chronic disease and thinking if we could just support people to make long term behavior change and then found health coaching and blah, blah, blah.

Right?

So, but that's the thing.

Any time I hear a client who says I should be doing this XYZ um then exploring that should and finding out, OK, where, what is that relationship like?

And what, what, what brings you joy when you move your body, how, how does moving your body and in what ways and all of those barriers and there's a lot within all of that to kind of unpack and c how people enjoy moving.

Indeed.

And trying to explore the effective memories, how people relate to exercise, how they feeling and the memories are, is, is an essential part of the disc and exercise, promotion and behavioral change in general.

So, um Felipe, as we wrap up, I'm wondering if there's anything else that you feel is important for our listeners to know or understand?

Well, uh I think that we covered the most relevant topics and just um the things, the, the message that I want you to, to try to, to spread together with some colleagues that first some exercise is better than nothing.

Uh Second that any step counts.

So that's the logic that doing just little amounts could be beneficial.

Uh And second message is that you should try to understand what's the exercise and the physical team that makes more sense for you.

So that makes more sense to you is that, and it's likely the, the one that you enjoy the most and that if you're more comfortable and that would be uh that the best exercise and also something that's important to know.

I don't know how can you insert this in the talk but that I didn't cover it before that eventually the environment, the gene environment and some other exercise environments can be uh very uh challenging and can be uh very distressful for some people, like eventually people that are going to the gym and they are trying to start exercising and especially for overweight people or people that are just feeling disconnected to that environment that they just don't feel that are they, they are going to the gym and seeing lots of fit people and strong people and they are overweight gym can be, for example, not just Gin but other exercise uh places can be a bit distressful.

So something that we, we should try to uh work with people that are trying to experience uh exercise in these places is that uh you, you shouldn't focus on people that are very fit and people that are just trying to do to increase their strength and doing bad faces and wearing this little clothes.

And the the focus should be on yourself and how you feel during the exercise.

This is the most important thing.

So Gin is not exactly a healthy and a peaceful environment for many people that are just still feeling distressed by that.

Indeed, Gin can be a challenging, challenging place because you just feel disconnected.

You just, you don't feel connected as we explore it in the self determination.

The question, when you are feeling that you are attached to the person that or to the, to the context, to the place you are more likely to engage and when you feel, don't feel it, it's just the are.

Thank you.

All right, Felipe.

It's been a joy to have you on today and to speak with you about this important topic.

Thanks for shining some light on the importance of physical activity on mental health.

Well, thank you very much for having me here today once again and it was a pleasure for me.

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We hope you found today's conversation timely and meaningful.

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