Academy of PHYSICAL MEDICINE

Measuring Activity Levels

with Tommy Parker

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TRANSCRIPT

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Steven Bruce
I am joined by Tommy Parker, Tony Parker from key active who's going to talk to us about a very important concept of measuring genuine activity levels in patients. Tommy, welcome to the Academy of physical medicine from your kitchen by the magic of zoom, you want to tell us a bit about yourself?

Tommy Parker
Yeah, sure. So, as you said, I'm Tommy Parker, and I'm the CEO here at key active. And we're a digital health company focused on making people's everyday physical activity, and effective and accessible medicine for managing their health. And we for the last five or six years have been focused on creating behaviour change for everyday physical activity to help people manage themselves and self care. And that includes a lot of the work that we're doing in the NHS. So yeah, I'm really pleased to be here today to talk to you about everyday physical activity and how we can utilise that as a tool in our self management toolkit and also to help our clients.

Steven Bruce
Sorry, I know you probably got a structure. So what you wanted to say today, but I am always delighted to interrupt people structure and get them off on the wrong tangents, and so on. You've just mentioned mentioned encouraging behaviour change. What did you mean by that? What is it you're trying to change and how.

Tommy Parker
But I think one of the key things around physical activity is that we know that it's good for us. But actually, despite kind of years of telling people to move more to get off the bus stop early, actually, people's lifestyle has become more sedentary. And what we want to do is to find an effective way of getting people to incorporate more activity into their lifestyles. And it's really that behaviour change, which is the step that, you know, previously, we failed. And for us, that's our focus, getting people to make lifestyle change that is long lasting.

Steven Bruce
Interesting, though, isn't it? Because we've heard a lot from various sources about the 10,000 steps a day, and people are wearing Fitbit and equivalent devices more, you kind of get the impression that people are more aware of a need to move and the need to do things that are active. You're saying that's not actually the case? or?

Tommy Parker
Yeah, I think it's, um, I think there's a couple of issues with it. So partly, it's a very kind of narrow group of people that are actively managing or monitoring their physical activity with some of these devices. But they're also kind of inherently driven towards fitness, rather than, you know, everyday health and well being. And I think at the moment that disengages a proportion of the population that really do need another option, they need a bit of help. I think the challenge with the wearables is, is as well as the last they do provide some data. And in some cases, a lot of data. And, you know, if you put to one side, the accuracy of that data, who's in control is that you will the wearable, you know, because if it's buzzing on your wrist or telling you, you've hit a target, and that becomes the trigger for you to move more, that's really not you kind of authentically choosing to do more and understanding why you would do more.

And there's a lot of behavioural theory around actually getting people to follow programmes, you know, is often quite tough. But what makes it easier is if we can really explain to people the depth of what matters to them, and the benefits that they can achieve through moving more, and why it matters to their health, we can actually get people to make their own decisions and not just be triggered by other external forces.

Steven Bruce
And I seem to recall you saying that there's quite a bit of research behind the effectiveness of the way you're approaching this.

Tommy Parker
Yeah, definitely. I mean, you know, we're very fortunate to be able to piggyback off, you know, decades and decades of research about the benefits of physical activity into so many different areas of health. You know, there's kind of a countless number of conditions that are, you know, physical activity is proven to improve the management of but also reduce the risk of developing other complications. And that's not only you know, things like diabetes or heart disease. But we also know that physical activity is beneficial for things like pain and also mental health. So we've been able to use that evidence as a foundation, but then actually move it forward and say, well, is what we're doing actually delivering a benefit. So we spent a number of years working with the University of Bath in a randomised control trial, to establish whether it was even possible to use the data that we would be able to capture from these new wearables and use it in a way to actively change people's behaviour in a long term fashion. So we've done a lot of work to make sure that we are delivering the right outcome and for me, My focus then becomes because I have a background in economics is how can I demonstrate that to have a benefit to the health system. So linking those physical activity improvements in the way that we do it to clinical outcomes to other outcomes that are involved in cost savings to the NHS and the healthcare system at heart. And so for me, you know, the science and the evidence really has to flow through everything that we do.

Steven Bruce
How powerful was the RCT that you were taking part in?

Tommy Parker
Yeah, so we had 204, participants across kind of both the intervention in the control group. And so that work that we did with the University of Bath is, was led by a professor Dylan Thompson, who is kind of a global expert in physical activity and epidemiology. And it was really interesting to see the way that they were approaching physical activity in a way that kind of at the time really went against the grain. So there were, you know, monitors on the market, things that you could buy. And obviously, pedometers have been around for a long, long time. And part of what was going on is that the approach to behaviour change in physical activity was to try and simplify it so much that you could get it down to one number. Because it was felt that, you know, one number was something that people would be able to understand and to focus on and to improve. And I think that's where steps obviously gained a lot of momentum as a as a metric. But what they were trying to do was actually say, Well, we know physical activity is more complex, we know that there are multiple dimensions of which are independently important to somebody's health. So you know, the amount of time we spend sedentary has an

independent impact to the amount of time that we spend doing activity of a moderate or vigorous level. And it's only when you look at the whole complete picture, that you can really get an understanding of how of how that your physical activity profile impacts on health, you've got to take in the negatives and the positives, you've got to look at the whole picture. Otherwise, your view is going to be very distorted.

Steven Bruce
So how is it then that you go about doing this?

Tommy Parker
So what we did working with them was to first of all, create a physical activity profile that included these different dimensions. So one of the additional benefits is of looking at it in this way is that you no longer kind of pushing people down one narrow stream where you know, you you want to get them to focus on steps, do more steps. And that excludes quite a few people from achieving those targets and achieving ultimately, the benefits associated with physical activity. Because not everybody lives in their lifestyle in a way that they can incorporate more steps. So they could hit the 10,000 step target. And, you know, and that's for a variety of factors, whether that's their working lifestyle, you know, how they live and what their family situation is, like, so many different factors that impact on people's personal behaviour. So when you're creating choice, and you're accounting for all of the different behaviours that are beneficial for people, then what you can do is, is provide people that personal understanding, unique to them, about what their current activity looks like, and how it impacts on their health, and where they might be able to find more opportunities to move without the very narrow lens of exercise. So we tend to look at things and explain that, you know, we have 112, waking hours in a week. And typically an exercise programme is only going to focus on a couple of those. So the opportunity for people to be doing more things to benefit their health, and to avoid the things that are detrimental to their health is vast, because I think one of the areas that we you know, particularly look at when we're dealing with rehabilitation programmes in the NHS, but I think there's a lot of parallels to kind of other private practice is that they would be going into a facility for an hour or two a week. And then going back the next week and doing the same thing. But what that means is there's 110 hours or so where they might be doing things that are detrimental to their overall outcomes in their progress. But nobody knows about it. And crucially, the individual themselves aren't aware of that behaviours being a negative to their overall outcomes. And I think that's the same where there's kind of any treatment process, that you want to make sure that everything is working together to try and achieve the goal.

Steven Bruce
Yeah, just before we go on, I want to address an observation that's coming from eco equals says he thinks that most people know that they need to move. It's the motivation and also the creation of a habit of exercising regularly. That seems to be more of an issue and he feels There's more, there isn't now enough evidence on the benefits of exercise. And I don't think you're disputing that.

Tommy Parker
Oh, you know, not to I mean, you know, we know, the benefits of, of exercise. And I think one of the key elements is that it's about moving beyond exercise into just physical activity. And I had a quote the other day from Professor Dan Lieberman from, from Harvard, who's a, he kind of researches the evolutionary biology of where we've come to. And he made the point very strongly that your body

doesn't know whether it's exercising, or whether it's just movement, you know, it's the same physiological processes, you're moving at an intensity for a duration, it doesn't know whether you've put on your new shiny shoes, and put on your lighter and gone out for a run or you're in a gym, versus maybe doing some DIY or, you know, moving house, you know, the heavy lifting involved in that. So your body doesn't know the difference. So it's about being able for us to widen the options, and the opportunity for people to make the benefit of like you said, the evidence that exists for moving more and for exercising,

Steven Bruce
you talked about measuring adverse exercise exercise, which will be detrimental to the patient. How are you going about that? I mean, how does it How does it manifest itself in any sort of measurement device.

Tommy Parker
So the way in which we approach it is kind of going back to the science of physical activity. So physical activity is defined as any bodily movement that raises your energy expected energy expenditure above resting. So we've taken forward this method based on the kind of our kind of vast experience of not only using wearables, but also physical activity, data and measurement. So we're capturing data every minute about the energy expenditure from that minute, so how many calories you burn in that minute, which is often based on your movement, but then obviously, you have a, you know, a calorie expenditure that you have at rest as well. And often the base of that kind of raw data, what we're then doing is analysing people's physical activity across all of the intensity levels that they might be working in, to create a picture, that is a snapshot of a week. So we're looking at a full seven day picture, rather than just daily targets. Where we're analysing how much sedentary time people have, how much activity they do at the various intensities, whether that activity is continuous for 10 minutes or more. So is it in chunks, continuous chunks, or is it just minutes here and there. And then is there any additional movement in their days that increases their energy expenditure, but actually doesn't break one of the intensity threshold, so moving from sedentary behaviour, to light intensity to moderate to vigorous, they might still be in sedentary as a threshold, but they might be doing more than they were doing a rest. And so by creating that whole picture, we get a very comprehensive look at somebody's activity profile. And from that, we can use all the evidence to tie that to specific health outcomes, you know, the risks that they may have of developing about 14 different long term conditions, and really start to help people understand this plays into the point earlier about the motivation is that there's a bit of a gap at the moment between what people truly understand activity is good for. And if people really saw, I believe, the risks that they were putting themselves out from the sedentary lifestyles, rather than just being told, you know, we need to move more. I think that's when you create a kind of shift. It's very visual, when you see how sedentary you are. And you see all of the opportunities that there might be to change that we've seen a massive response from clients across all different ages and demographics as well. And I think that's where, you know, we see a lot of importance is widening the message away from just people who already love exercise, but actually giving them the benefit of it's of activity, even if for their whole life. They've hated exercise.

Steven Bruce

I think we've had another observation come in from Justin, and it's probably worth you spending a bit of time explaining this a bit more, because Justin says that he's under the impression that activity does not equal exercise. So what qualifies as exercise? And I think that's key to what you're saying.

Tommy Parker
Yeah, definitely. So I mean, you know, the distinction between the two. I feel like it's slightly been misconstrued over the last few decades. And, you know, as a result of it, what's happened is we've slightly not slightly but we undervalue the types of movements that happen in our everyday that our physical activity, but that aren't exercise because we've been really conditioned and geared towards thinking that you know, the stuff that we do in the gym or whilst we're wearing our you know, nice trainers or Whilst we're in our core gym gear is in some way more impactful or more beneficial than the type of activity that we would do everyday in the home or just as part of our daily routine. So the difference between them is that activity is any bodily movement that increases your energy expenditure. Whereas exercise is a category of it. It's a subset where it's some kind of planned activity that's done specifically at various intensities for a purpose, which is typically health and performance game. And I think activity is really the tool. Exercise is just one thing that from all of the data, if you establish a foundation of everyday activity, it's then that you want to build on top of the exercise. But that's only if exercise is something that you want to do. And I think forcing everybody down that route has been a mistake that's been made in terms of trying to impact population health outcomes, because not everybody likes exercise. And there's an awful lot of different reasons for that. But it doesn't mean they can't benefit from being active.

Steven Bruce
Right? Can you tell us how what you've been doing has worked within the NHS, because you mentioned that at the beginning of the programme?

Tommy Parker
Yeah. So I mean, we started, as I said, with the randomised control trial in the University of Bath. And following that, what we saw was, we really wanted to take it forward and impact people at scale. And one of the opportunities that there was at the time, was to pilot the technology with a group of type two diabetes patients, to help them better self manage their condition. And obviously, physical activity is a cornerstone of lots of different long term conditions. And type two diabetes was a great place for us to start. So what we did was work with an NHS organisation, to demonstrate that we could get people to improve their physical activity, which we'd already proven in the randomised control trial to be sustainable, which is a crucial part. And off the back of those physical activity changes, were able to demonstrate the clinical outcomes that were associated with health improvement, and the reduction of costs ultimately, for the NHS in the longer term. And following that, we've been able to branch out from just type two diabetes into other long term conditions and also into rehabilitation pathways, where again, physical activity is a key component. And, for us, we, although we, when we're working in the NHS, we have to focus on these specific condition pathways, because that's the framework and the paradigm that the NHS operates in. But what we see is the opportunity to utilise physical activity across multiple different condition pathways to enable people that may otherwise not take up existing face to face services, you know, may have real troubles in terms of access or travel to hospitals and clinics to be able to better manage themselves from home in a very flexible way, with digital and human support,

so that they can make the most of their health and being a bit more control. And I think it's it's interesting for me, having had a chat with Matt Walden, who I know and for him, he was focused on there being a lot of alignment with how he thinks in terms of needing to change the locus of control with the client, so that they're not so reliant on external factors, external experts as well, so that they feel a bit more involved in their own care. I think all of these things play into as well the motivation to change the motivation to to want to be healthier. If you feel like you're part of it, and you you have some ability to control it, then that's only going to be a better benefit.

Steven Bruce
Okay, few more questions, but I really want to dig into how you're making this happen within the NHS. But Jonathan asks about exercise, does the government recommended minimum physical activity even scratched the surface of the problems we have regarding the various comorbidities? I think it's 150 minutes of moderate or 75 minutes of vigorous activity per week.

Tommy Parker
What do you think, sir? It's a big question. And no, nothing, isn't it? Yeah. And I think that's where everything everything works within its own context. So the approach with the government guidelines has always been To set a level, that is the minimum level needed to have a benefit, you know, it's something that they have set at a very low bar in order to achieve some overall impact on population health. But I think when you dig into the history of the guidelines, it starts to paint a bit more of a picture. So originally, the hundred and 50 minutes was to be included on top of your daily active lifestyle. But that was before we'd engineered all movement out of our daily routines. And I think that's where site might have been slightly lost in terms of scratching the surface, because we've taken away what used to be, you know, a fairly, a fairly, okay base level of activity where, you know, we would do the washing up by hand, and, you know, the I'm, I'm slightly too young for it. But when you used to have to get up to change the TV channel, instead of being able to do with a remote, all of these things have been removed, and they may have seemed inconsequential at the time. But actually, now we look at it, you can really get through life without lifting a finger. And that's not a good thing for our physiology for our bodies.

Steven Bruce
So maybe, maybe for those people that glue the remote control to the wall and

Tommy Parker
a little bit higher than normal range. I think it's been fascinating for us working with working with patients in the NHS, especially the older age group who who do have, you know, multiple comorbidities and long term conditions. That actually, they, you know, it wasn't that long ago for them that they were living life in a very different way. And so they're very quick to understand how they can get back to it as well. So that's been a fascinating insight for me, I think, you know, the hundred and 50 minutes, yet it is set. at a low level, it's not the aspirational target. And what we've wanted to do is actually change the mindset so that, you know, we could show people what the optimum level of physical activity is that they can do that we know from all the available evidence and science, that that will reduce their risks of long term conditions and put them in a very favourable position in terms of managing their health. Another problem, which is a slight tangent, of the 150 minute guidelines, is that most wearables have

just taken on that guideline. And they've not thought about, again, the history of how the guidelines came to be created. So ultimately, before we had the technology, that we're able to measure physical activity, it was all done through questionnaires. So we would ask people how active they are. And the problem with that is that also relies on their understanding of what is activity. Because if somebody put a physical activity questionnaire in front of you, are you really going to put down when you were cooking, when you were doing the washing up, you know, when you were doing the things in your daily life that are activity, but you might not consider to be. And so that plays a real big role in distorting how the guidelines now are looked at by some of the wearables. And so whereas the wearables are now taking into account every minute of every day, the guidelines only used to focus on you know, from the questionnaire when people thought they were being active. And that disparity means that the guidelines that are being put into some of these wearables really don't scratch the surface, because they're congratulating people for meeting them, even though they're a very low level. And that can play into as we said earlier, the behaviour change where if you've, you know, you've got a device on your wrist, and it congratulate you for achieving your activity target, you know, partway through the day, a lot of people would then go, Oh, perfect, I don't need to do any more. And they continue then to sit down and, you know, watch soccer Sunday, or, you know, Netflix for hours on it, but without realising the detrimental impact of that new behaviour. And so a lot of things, it's just an unawareness of what the knock on impact might be. Because they've not taken the time to look at the depth or the history of how a lot of the guidelines have come to come to fruition.

Steven Bruce
So we're getting loads and loads of questions in but I'm conscious that we need to understand how it is you're doing all this how you're making this change happen more practically than just my discussion. If we just put one in. It's just disappeared on my screen bill has said about exercise I he read a years ago that if you walked three kilometres inside 30 minutes, three times a week, then you wouldn't be considered sedentary. Is that a useful metric?

Tommy Parker
And it's quite a difficult one to get your head round unless you're kind of very focused on it. And again, part of the problem is that nobody's really been able to distil something quite simple across the globe. And part of the reason that Dylan's research, you know, has really taken us forward in this is that he had to look at all of the guidelines across the globe. And actually, what he found was that in one country, you could be considered very active. And in another, you could be in the bottom quarter and be considered very inactive. And that for scientists, obviously, slightly offended him because he was, it didn't fit with the idea that we just knew things, we knew what would make somebody active, what would make somebody inactive. So I think, whilst we might, you know, play into our minds, a lot of, you know, a lot of guidance like that, that enables us to make better decisions, and gives us a guide of how we move forward. I think our aspiration is slightly higher in that we would want to make it applicable to every different person, because not everybody is going to want to walk or run. And that, again, needs to be accounted for when we're thinking about how can we help as many people as possible, because we need to be able to cater for so many different types of lifestyle, so many different types of environment, you know, we need to, especially within the NHS cater for different health inequalities. And so the personalization is really key in helping people to understand what's really going to work for them.

Steven Bruce
Okay. I've spent a lot of time asking you questions. And one of the main drivers for getting you on this show was in fact, Matt Walden, who you mentioned earlier on, because we've had Matt on the show a number of times, and he was just brimming with enthusiasm for your system when he came to see us last. And can I give you the opportunity to explain how key actives approach differs from, say, Fitbit? And I keep I keep saying Fitbit. But of course, I mean, all those other wearable devices that Tommy has been referring to?

Tommy Parker
Yeah, definitely. Well, I think I've touched on a few of the elements so far. So I think, in general wearables provide you with data. And they, they do so in a way that doesn't always have the context that's aligned to somebody's health and well being. So 10,000 steps, for example, you know, step counters are in embedded in many of these wearables. And the target is typically set at 10,000. But the history behind that is that it was developed around the Japanese Olympics, that somebody had designed the pedometer, and then put that out into the marketplace. And 10,000 was actually just an arbitrary number. A lot of the research since then, has been trying to prove that 10,000 steps was the right level. But that's the wrong way around to think about it. The way in which, you know, these things provide people with data, it can often be an abundance of data, you know, from multiple different sources. But from our experience, what we found is that data enough isn't a data alone isn't enough, you need to turn data into something that's actually meaningful, you know, so that they can understand how it applies to them. We need to be able to hit people's goals in terms of improving their health and well being and the context needs to be very tightly aligned between the data that they see and what it means for that health. so that people can make better decisions every day to improve their health. Because ultimately, that's why people are buying into whether it's a you know, one of wearables, or whether it's, you know, one of the services that we can offer. They're doing it because they see the need to be healthier, and to do something about it. And for us, what we learned during our period of just providing data as a wearable, and because we, we actually launched the first wearable in the UK back in 2009. It was a device called key life, key fit, sorry. And it was we were working with a partner from the United States called body media who then got bought by jawbone. And we spent a lot of time doing that and had some really great success with consumer weight loss. But we knew that there was a bigger opportunity to first of all harness physical activity for weight loss, which is, you know, something that is vitally important to so many different aspects of health, but also, that we needed to do more to help people utilise the data to make better decisions. So what we've done is created a service that is really focused on teaching the self management skill that people need, and personalising the understanding of the data, so that they are the ones that are driving the decision. It's not about hitting a target being congratulated. Something buzzing when you're too sedentary and you need to get up, the decision making has to be done by the individual. If we want it to be long lasting, I think that's just a key concept that comes through a lot of the behaviour change science, there is

Steven Bruce
a wearable device of your own devising.

Yeah, so it's not our wearable, we're actually agnostic to the wearable that we use. But what we do have is a strict criteria about data and how that gets used. Because there's, there's so many different aspects of this. And a lot of the data that comes from consumer wearables, because the barriers are much lower, is not necessarily good enough to fit into our engine. Because when we're working within the NHS, and we're working with health conditions, we need to make sure that there's no false positives or negatives, we need to make sure that the behaviour change that we're instigating will deliver a positive outcome for the individuals, so that they, you know, are actually achieving what we set out to achieve. Not that we're taking them down a specific route, because we've only looked at one part of activity.

Steven Bruce
So if you're doing this, if you're agnostic about wearables, then what are what are your patients in the NHS and elsewhere wearing, are the patients, not your patients?

Tommy Parker
Yeah, so they what we do in our services, we send people out a device, which is a wrist one wearable, it has an accelerometer in there, and the manufacturer has been able to demonstrate some remarkable levels of accuracy. And specifically as well around that light intensity, levels of activity, which for a lot of the monitors they, they under account for. And for us, it's really important because we're dealing with a group of people who often have conditions maybe have more than one condition, where we're not talking about your fitness enthusiasts or exercises. And for them, it might be that they're starting from an incredibly low baseline. If you think of somebody who's on a falls prevention programme, who is very frail, you know, they could own they could be doing, you know, a couple of minutes of activity a day, but most of their movement might be line activity. And it's really important that we capture all of those elements, to be able to get an accurate baseline of where somebody starts from, but also enable them to look at the things that they could do that are achievable for them, so that they can continue that behaviour change journey moving forward. And so once we've sent them out the device, we get them set up. And part of our programme is to provide an element of human mentoring, which is delivered remotely over the phone, so that we can hold people's hand through the process, you know, not everybody is as ofay with technology as they might want to be. And especially, you know, within an older age group, there's that perception that people may not be able to use it. But we found that to be false. But what we do with our mentoring is to be there to get people to set up to set their expectations of what we are going to do, which is not prescribe them activity, tell them to do things or, you know, provide incentives for them to do them, but actually help them realise how they can take control, and make better decisions based on what they're seeing in their personal dashboard. So this is the piece that we proved with the University of Bath and enabled them to really take control of their own lifestyle and understand where they can fit in more movements into their daily routine. And actually, what movements going to be effective for them, you know, what can they fit in? And that's going to work around their work commitments. You know, maybe they are retired, but they have other things going on? How does it play out for them, rather than kind of providing a broad brush approach, which doesn't necessarily cater to the individual differences between we'll have

Steven Bruce

a couple of questions coming in slightly unrelated to this. But Robin sent one in earlier on saying how would you start to implement or encourage activity for a patient who's centrally sensitised and psychologically inhibited by chronic conditions like Fibromyalgia? I guess the importance here is, it's all very well being able to measure it, but how do you physically encourage them to take more through indulging more activity.

Tommy Parker
So I think one of the ways that we've experienced it with people who you know, do have quite a high condition burden, and are starting from a very low level is to be able to show them the impact of things and get them to be the one that offices up but things that they do during their daily routine things that they enjoy doing, and things that they are capable of doing within the boundaries of the condition. And once you're then kind of working in their own paradigm, you're working within what their lifestyle looks like. You'd be able to identify where behaviours may be positive and where they may be negative, and start to reinforce the positive ones, but always within The context of their own capacity, their own condition and their own environment as well. Because what we saw throughout lockdown was how, you know, our environments changed dramatically. And, you know, we had a big worry, and we were spent a long time, you know, on calls with the professor, you know, talking about the dangers of deconditioning. And how, you know, we needed to do more to try and have an impact, because you're

Steven Bruce
going to need diesel on that Trevor actually asked a question earlier on about how lockdowns affected movement. Do you know how much it is what used to make an assumption?

Tommy Parker
Yes, I mean, we, we know how lockdown impacted our group of patients. Because we saw their data. And it was, it was very individual how people changed. But it all it shocked everybody at the start, you know, this, this kind of moving into lockdown. And the rhetoric that was coming from the top down from from NHS England was very focused on you know, that one hour a day of exercise, but they were saying the word exercise, they weren't saying activity. And the language that was used wasn't very careful. Should I say when they were talking about this. And what we started to see was a shift in balance of activity where people no longer had their commutes, they weren't going to work. And whether that was an active commute or not, there's still activity involved. You know, people live a very different life being at work than they do at home. But what we saw is a resilience where people's lifestyles changed. So their data changed. So they could start to see actually, okay, well, I'm now a whole lot more sedentary than I was, even though I've had this hour of activity per day that I know that I've been told I need to go out and get, then people are starting to think well, if this is going to go on for a long time, I need to stop being so sedentary, when I'm working from home, I need to find new ways of implementing activity and keeping moving throughout the house. And you know, that's especially important for a condition like lymphedema, which we're working in. So we're, you know, obviously, they have swelling, because of the dysfunction of their lymph system. So they've got an edoema, where their lymph system isn't flowing effectively. And it's the muscle movements that then squeeze that and help that to move through and, and work more effectively. And so for them, those periods of sedentary time, were actually quite a significant burden on them and increase the symptoms that they were experiencing. So it wasn't just about going out and doing that one hour a day. But for them a much

more important focus was on moving more throughout the day, and finding how they could do that in a way that fitted with whether they were still working, whether they were on furlough, you know, whatever it was, they had to be the ones that take control of that. And I think it's a real lesson for us that, you know, certainly in the NHS, a lot of services just stopped. And I would imagine it would be the same for quite a lot of people, you know, listening and watching is that, you know, you weren't able to deliver services for a period of time. But the clients, they don't stop facing the problems that they're having. And so actually, that's why we need to shift the balance, so that people have a bit more responsibility and also control of how they can continue to manage their own health, and use the expertise of other services, to then really enhance that and help them to make the jumps that they're not able to do themselves, whether that's through kind of the specific exercise that they were doing, or corrective mechanisms or hands on. You know, for us, everyday activity can be the foundation that enhances the effectiveness of all of the treatments and expertise that people have.

Steven Bruce
So far, you've talked about the research you've done above and the work you've done with the NHS, and you've talked about key active monitoring the exercise levels of the people involved. Is this technology. Is this system available in private practice? And if so, if so, is it desperately expensive for people to take up themselves?

Tommy Parker
Yeah, so this is something that we've been working on because, you know, we, our approach, and our strategy was to prove it in the NHS as being kind of maybe the harshest environment, the one with the biggest barriers to entry and the biggest barriers to evidence. So having established our footprint in the NHS, what we now want to do is widen that access through the other channel verticals like say, private practice being one but also direct to the consumer being another where we can then overcome the barriers in the NHS which are around rationing. You know, the fact that is still a postcode lottery, with respect to what services you get. And so we do have an ambition to start working with the private practice to say, you know, we can help your patients and clients be healthier outside of the times that they see you, you know, kind of gives almost a virtual 24 seven presence for the management of that In a way that they haven't previously had. And ultimately, we see that that can deliver better outcomes from the treatments that happen, you know, still in a face to face environment or on a one to one remote basis. Because you're then you're then building the expertise on top of a level of base activity. So that you know that outside of the times that you're with an individual, they're not spending their life and their behaviours aren't geared towards detrimental outcomes, you know, they're trying to help out as much as they can as well.

Steven Bruce
How are you getting that information, there's the wearable that they have automatically send that data to your to, they physically have to upload it.

Tommy Parker
Yeah, so they have to. And so we've have a very simple iOS and Android app that enables them to upload their data at the click of a button. And it's designed to be very simple. And actually, we don't have any visualisations on the app itself, we direct people to view on the web browser, on either a

tablet or a laptop, so that they can really understand the data itself and get into the detail. And so that it isn't just short term reaction to seeing a number or a visualisation. And so that we've seen to be very impactful. So the data flows automatically, and we get great engagement from the patients themselves, they upload typically every day, and visit the platform about three times a week on average, right. And so when the data is in that system, then we're obviously monitoring it from our mentoring side, so that we can make sure that people are still seeing the benefit. But what we've also been looking at, and you know, what we're keen to do is to engage with other practitioners who might have other use cases, and actually seeing the data about some of these everyday activity might be valuable for a practitioner to then understand, okay, well, what are they doing outside of the sessions that I'm having with them? And is there any way that we can improve that outside of just their everyday activity to make sure that overall witchy better outcomes?

Steven Bruce
So we were always at the end of this 45 minutes, and I'm nowhere near through the questions. Luis has asked whether we could see the research that you talked about, get access to that, from a personal perspective is is there stuff I know you had some slides that we were going to look at, is there any way you can share stuff with me that I can then send on to today's viewers so they can learn more about your approach?

Tommy Parker
Yeah, definitely. I mean, I've got a couple of slides that, you know, I think we've pretty much covered off without any of the visuals. But I do have one slide that I can flick out, and it just gives you a bit more information about where you can find some more and then what I can do a send that through to you,

Steven Bruce
as you just send that through to me, I will share it with everybody who's watching and put it up on the recordings page as well, for those who come later, which are, which will be helpful. For now we've got a couple of minutes left. In terms of getting into private practice, what's the investment from the patient's point of view? I mean, is this hundreds of hundreds of pounds per wearable?

Tommy Parker
Yes, I mean, what we've, what we've tried to do is to create a model that can work. So if somebody was to come direct to us, if a consumer or a client was to come directly to us, the RRP of the whole service is 278 pounds, 99 pence. And for that they get the full 12 weeks of support from our mentor, they get the wearable and lifetime access to their personal dashboards so that they can continue their self management journey.

Steven Bruce
How does that compare to the cost of a Fitbit? Do you know?

Tommy Parker
And so, so most of the recent fitbits, it's around about the same price?

Steven Bruce

only asked I know they don't do the same thing. But in the minds of the patient, that would probably be their alternative, wouldn't it?

Tommy Parker
Yeah, and it's it's an interesting one, because what we've tried to do is to obviously frame the service in a way that people truly understand why it's not just the wearable. So if you were thinking about getting 12 weeks of support from an individual, the cost of that is obviously going to be much higher than 278 99. But what we're able to do through the mechanisms that we are, is to bundle that all together. So when people appreciate the level of support that they're going to get, we've seen a very favourable reaction to the price point, which, you know, also enables us to work with individuals on that private basis, as well as doing the work that we do in the NHS that, you know, we hope provides the scale to the people who can't afford to do that, you know, so it can be delivered from the point of views. And I think then, you know, for us, we know that, you know, we we need to engage with the practitioner audience in private practice to, you know, help them understand how it could be utilised, but also work with them to understand what some of the challenges are, and any potential differences between this and the NHS. Yeah. Because we've been We definitely believe and we have the evidence to support, you know, us being able to change people's behaviour. We know how that will impact on people's overall health outcomes, and hopefully augment the work that happens in private practice anyway, to support that and make sure that it's as effective as possible.

Steven Bruce
So if you don't mind, can I send through a summary of the questions that I've received after this? And I can send out the answers because they've been quite interesting questions that have come through. I'm sorry, I'm sorry that we've run out of time, I'm giving up your time for us. And I found that really interesting. And of course, you know, Matt Walden recommends the approach very enthusiastically and I take his opinion very seriously. And I

Tommy Parker
definitely, I'd love to answer more of the questions and then you know, I can send through the couple of the slides anyway, where we can direct people to see a bit more information as well, you know, links to the research and, and if people want to get in contact with us directly, then they can do that too.

Steven Bruce
Brilliant. Thank you very much.