The Role of Digital Technology in the Lives of People with COPD - Transcript

Dr. Camp (00:05):

Welcome to LungFIT, pulmonary rehabilitation podcast, which is dedicated to topics related to the practice and research of pulmonary rehab. I'm your host, Dr. Pat Camp. I'm a physiotherapist and researcher at the university of British Columbia in Vancouver, Canada.

Hi everyone. And welcome to this episode of lung fit today. I'm so happy to be talking with Dr. Marcy Antonio, Dr. Antonio recently completed her PhD at the university of Victoria and her work is going to be what we're gonna be talking about today. She has been working a lot with people with COPD related to digital technologies. And I thought that this was gonna be a great topic for those of us who are interested in pulmonary rehab. Dr. Antonio is currently a post-doctoral researcher at the university of Michigan where she's continuing her work in the school of information. So welcome to the podcast, Marcy.

Dr. Antonio (01:13):

Thanks so much, Pat. Great to be here.

Dr. Camp (01:16):

So I thought I would, um, get a bit of a feeling of where you come from in terms of your research career. So you've recently, uh, graduated from the university of Victoria doing your doctoral work. What was your path to get to U Vic?

Dr. Antonio (01:33):

Yeah. Um, so actually I worked in the community for about 17 years providing assisted technologies and, um, setting up people in, in their homes with power mobility equipment, such as power wheelchair, um, bath safety equipment, walkers, um, hospital beds and all of that, just to keep people really independent in their home. Uh, and one of the things I noticed actually was the fact that there weren't a lot of people living with COPD that I met. Um, and the people that I met, um, really it's, um, were often living alone and not getting a lot of government supports because they tended to hit right at an age bracket where um, funding was no longer available. Um, and so I really wanted to try to address those disparities that I was witnessing. So I went back and got my master's in public health and there was actually a course that I took around anti-smoking legislation and it really impacted how I, yeah, just understanding how health inequities were being introduced for COPD. Um, and then by chance, I got to the opportunity to work on a research study that was looking at people's, um, experiences of living with COPD uh, for my PhD. And so that's fine. Let me to pursue my PhD around that.

Dr. Camp (02:52):

And that's how you and I met because you were interested in, you know, identifying where people with COPD could potentially be recruited for your, uh, research. And then we got a chance to talk about it. And thank you so much for reaching out to me, uh, once you completed your doctoral work, because I think that this is perfect timing. There's so much conversation now about digital technologies, uh, for people that have chronic lung disease, especially with COVID, uh, more and more people and more and more clinicians are reaching to different kinds of technologies to be able to, uh, care for patients and interact with patients. So I'd really love to hear more about your research. So the purpose of your study, according to the summary that you sent me was to learn about how people with chronic lung conditions use online technology to stay connected and to support their management of their condition. And you

talked a little bit about how your past work in assistive technologies led you to this, but what made you decide on that exact research topic area?

Dr. Antonio ([03:56](#)):

Yeah, it was so part of it was, um, really some of the responses I heard when I interviewed people living with COPD for that other study was talking about, um, and people really talked about the social isolation they were experiencing. Um, and this isn't, I think it's not the social isolation so much that all of us, I think we're experienced over the last couple years where it was, um, feeling disconnected from friends and family, but was compounded by other things as well. Um, so even the things that we've experienced the last two years with, with, um, forest fires and the pandemic and us feeling the need to, to be, um, to stay within our homes, people with COPD also, um, experienced increased progression of their illness that really impacts their ability to get out. And then also, if I look at, um, when I looked at the research resources dedicated to COPD, I found a real disparity between other chronic illnesses. So things like heart failure and diabetes tend to get a lot of funding, but with COPD I found not a lot of research was being done around digital technologies. Um, and because of the social isolation experience with COPD I thought the technologies have such potential to actually address that social isolation, but yet, um, couldn't find any studies really looking at that.

Dr. Camp ([05:16](#)):

So how did you approach this research question then? You know, what sort of design did you use and the kind of methods that you use to be able to learn more about this?

Dr. Antonio ([05:25](#)):

So yes, I always have navigate towards mixed methods research, cuz I really like that approach for understanding complex research questions. So from the onset, I knew I wanted to do mixed methods, but then I came across the transformative mixed methods research design, which is really stressing the importance of prioritizing people's living with COPD their experiences and their knowledge rather than more formal knowledge systems like healthcare structures or, or academic university knowledge, but really people with lived experience. Um, so that's what drew me to the transformative design.

Dr. Camp ([06:02](#)):

So for those that don't know what mixed methods is. Could you give us a little, uh, description, I guess, uh, about what kind of research design that is and what sort of, um, data do you end up working with?

Dr. Antonio ([06:14](#)):

Yeah, so mixed methods is taking qualitative and quantitative study designs and mixing them together. So quantitative would be like a survey or... In my case, it was a survey. It could be a randomized controlled trial. Um, and then the qualitative can be interviews or focus groups. Um, and for my, and the importance of mixed methods is really to mix those. It's not having two separate stages, but to really look at the data as a whole and seeing how they compliment each other or areas where you might see disagreement, so often that's the most interesting thing, cuz you might see in your survey that people are responding one way, but in interviews they've responded in a different way and trying to understand those differences and why, why, why you're seeing that.

Dr. Camp ([07:00](#)):

So you decided on mixed methods. So how did you design it? What did you do first and what did you learn from each part, I guess?

Dr. Antonio (07:08):

Um, yeah, so I started with, with interviews, um, and that's part of that transformative approach, cuz it's really stressing that you speak to the community first to get their insights that can then help you to design your next stage. So I spoke with about seven people. Um, and then I went to a survey and those interviews really helped me select what I would put in my survey. So originally I proposed one type of measure, but from the interviews I actually shifted to something else. Uh, and then my survey, I used to inform my third stage, which was interviews again. And the way I used my survey was to look at how people respond to the questions and try to get really diverse experiences, um, so that it could interview people in that final stage and get a lot of different insights.

Dr. Camp (07:56):

So what kind of questions did you ask in the survey? What were you looking for there?

Dr. Antonio (08:00):

Yeah, so I used, um, patient reported outcome measures and patient report experience measures in there and one of them was the COPD assessment test, so the CAT, um, and the other one was, um, a survey, I'm trying to remember, from Hodson, um, around COPD experiences. And so it has nine questions about, um, your experience with the healthcare system, um, and, and how your, um, COPD may be treated and managed. And then I also added in some questions around technology. Um, so how often do you use different technologies? Um, how do you use them? So do you use them for, um, managing your COPD? Do you use them to stay connected with people? Do you use them for searching for information? And then what I did was I compared those, um, patient reported measures to the, the technology used to see if I could find any patterns.

Dr. Camp (08:55):

So you used the CAT to get a sense about how COPD was, uh, impacting them in terms of, of symptoms and function and then the experience to get a sense of the overall impact on their life. And then the technologies to try to bring sort of all that together and see how the technology was supporting their lives and their care and their condition. What did you call technology in that survey?

Dr. Antonio (09:20):

Oh, that's a good question. Cuz I circled around that. Um, and I, I left it, I think I just called it technology. So what do you use, um, in your day to day life? And it was the list that I created that kind of helped to define it. So I would put things like I started with your computer, laptop, cell phone and then I had activities, um, such as Google for information or text. Um, cuz I, that was one of the things I did struggle with is I didn't, I didn't wanna be the one defining what people were using and if I created my definition, then I, um, automatically was like starting to narrow in what people were doing. So, um, I tried to leave it broad. Yeah.

Dr. Camp (10:01):

And then, so now you have the survey data, so you're getting a sense of the technologies that people are using and, and their experience of their condition. So then what was that final phase?

Dr. Antonio (10:11):

Yeah, so the final phase and actually one thing I will note is I started my study before the pandemic. Um, and then my survey ended data collection ended February 29th, 2020. So two weeks before the pandemic was, um, officially declared. And then I did my interviews in July and August of that year or sorry, June and July of that year. And so about four or five months after the pandemic started. Um, and so I did add one additional question, how things might have changed for people over the last four months. Um, and yeah, what I've, the way I used those interviews was just to get more understanding of how people were using the technologies and whether they were using them for COPD or whether they were using them for other areas in their life. Um, and then with the survey data, what I did was also look at different experiences. So some people really active adopters of technology and they had identified a really unique role of what they were doing with technology. So it asked them about those experiences, uh, other people, um, weren't using technology that much. And so I wanted to understand why they weren't and how, how we could actually support them to get more, um, active users in using those technologies.

Dr. Camp (11:34):

So that final interview, were you very, um, selective then in terms of who you interviewed, you wanted to get that variety of those that were active and those that were less so?

Dr. Antonio (11:45):

That, yeah, that's exactly it. So I actually created, um, different groups, um, of people who were high adopt-. I called them high adopters, mid adopters and people who didn't use technology that much or not at all. And I tried to interview some people who didn't use technology at all, um, or people who had used technology and had stopped using it. There were a couple of people who, who actually spoke about that. Um, and then I also categorized people according to their different, um, responses on their, their cat. Um, so their COPD assessment test. So I could get a range of COPD experiences as well. Uh, and then also, um, like I said, just the types of technology they were using. So some people might have been text messaging quite a bit. Other people might have been using Facebook more often. So to get an understanding of those different technologies.

Dr. Camp (12:36):

And did you get a sense of, you know, the characteristics of people that might have lent them towards one kind of technology use? Um, versus another, I know we make assumptions about age, but also there are lots of places in the province where some technology is just not available or reliable. So it sort of forces people to, to use something, uh, something else instead, did you pick up any of those patterns in your data?

Dr. Antonio (13:04):

Yeah, I would say not so much around the different types of technology. What I think was really surprising was I had this really clear cutoff point at age 77. So anyone under age 77 was using technologies, um, people over 77, that, that was where I found a few people weren't using technology. But what was interesting is those people who were over 77, um, and using technology were some of the most active adopters. And so it kind of, I think it really challenged that, um, I think ongoing narrative, I hear that seniors don't use technology. Um, and it's actually one of the things that really want us to challenge when we're thinking about how people are using technologies and the assumptions we make about who's using them. Um, cuz even in the interviews, actually, this is one of those differences I saw

was when I looked at the surveys, people said, yes, I really use technologies. And then when I interviewed them, they're like, "oh, I use them, but I'm not tech savvy. I don't know what I'm doing." And like that's interesting because you actually use it probably far more than I do sometimes. And some of the technology you are using are ones I don't even use and I don't know how to use, um, so really to, to challenge that and how that idea of tech savvy and who's tech savvy actually might discourage people from going online cuz they think they might not have the skills when in fact they do.

Dr. Camp (14:28):

Absolutely. I mean, I think about the iPhone came out, what was it about 2008 or so. And you know if we've been practicing for a while as clinicians, you know, we sometimes forget that time is going by. And so what we thought of 20 years ago in terms of who's using technology, I mean 20 years has gone by, uh, well, not quite, but for of them, but you know, it's, it's um, people with COPD are getting their condition and they may already have many years of technology use under their belt and, and that's gonna continue to increase every single year. So I think it's interesting that, um, that there are these perceptions that people, uh, were reporting to you that they thought that there was this sort of myth that they didn't use technology when actually they were using it quite a bit.

Dr. Antonio (15:20):

Exactly. Yeah. And a couple of people actually spoke about being introduced to computers when they first came out in the 1970s and they had been using technology all this time and then, and also the internet in 1994. So it technology has been there all along and people are using it, but yet they, even, when they refer to those experiences, they still came back and go, oh, but I don't know what I'm doing. And I'm like, huh, interesting. Yeah.

Dr. Camp (15:46):

Yeah. We're, we're critical of ourselves. And I think we maybe expect that others might think that we're not as proficient as we actually are, so people might tend to underplay their, their expertise. So that's a few comments about what you, what you learned, but what were sort of the big take home messages that you think it's important for people that work in pulmonary rehab to hear?

Dr. Antonio (16:11):

Yeah. I think one of the things that when I went into this study was around the social context. So how people may have social social supports around them and how to actually help people who don't have those social support. So that's what I was really interested in, um, and tying it to pulmonary rehab, a lot of the literature talks about the importance of self management, but also recognizing that in order for people to successfully self manage, they need that social context and those social supports around them. Uh, and so that's one of the things that really drove my study and how can we bring in technology for people who might not have social supports. Um, and, and is there a way that can connect people? Um, so we're not there yet. <laugh>, um, it it's really was an exploratory study to see what could we do. Um, I, I see lots of promise in what, what technologies have come out in the last couple of years, particularly around zoom. Um, we all see how that has connected people and I'm hoping that we actually continue on using zoom for populations that are really isolated or these video teleconferencing tools, because I think it can be a way to connect those really hard to reach populations, um, for people who might not have pulmonary rehab programs in their area and now provides them a way to do it online, um, and to connect with people, um, across the province.

Dr. Camp (17:39):

Yeah, that's such a good point. You know, we've certainly seen some of the pulmonary rehab programs go online and be able to continue to run, um, and the different kinds of support groups, some of them have been already doing that long before. COVID, especially for condition support, for conditions that are relatively rare. And so there's the need to be able to connect, cuz there's not that many people, maybe in one's community. You commented, um, you know, in your findings about this issue around individual capacity versus community capacity. And it sounds like our ability to encourage this sort of self management means that we have to address this issue of community capacity. What is community capacity and how can we, how can we make it better or increase it?

Dr. Antonio (18:29):

Another great question <laugh> cause, this is, this is something I struggled with in my research because, um, one of the things with the transformative approach is really to connect with the community. But what if you don't have a really strong community yet? And I found it really hard to get to connect with people living with COPD in the early stages of my study. Um, and particularly cause I wanted to connect people with people who, who were socially isolated, so I could understand how to address it. So it was kind of a catch 22. How do you connect with people who are socially isolated, um, and connect with community members if there isn't a strong community. And so what I really I think, um, drove to do is throughout my study is to be part of building that community capacity as a researcher myself. Um, so that's the other strength of the mixed methods approach that I took was it was sequential. So each stage, I was able to build off of each stage. And so for example, between my interviews and my survey, I was able to do presentations to bring back the information to, to the different groups. Um, and I was able to connect with some COPD support groups where I would do presentations and go, this is what research is. Um, this is what patient oriented research is. Uh, and this is how, this is really what I'm trying to do, to build a stronger community so that people actually have the resources to work together as a group. Um, and then similarly between my second and third stage, when the pandemic hit, I had these results from the survey. Uh, and so I was reaching out to different health authorities to let them know this is what people were doing, what they found successful. Um, so that could really help connect them, um, to some of these online, um, programs that we were seeing happening, um, in 2020.

Dr. Camp (20:22):

And I guess when I read that, I was also thinking of community capacity, being the healthcare system as well, and that maybe we didn't have the capacity to be able to support the increasing use of technology for support or for care. Is that true? Is the healthcare system part of this, uh, community? And do we need to think about its capacity?

Dr. Antonio (20:47):

Yeah, actually that's a great point, cuz that that's what I saw as well. Um, so one of the things I created was an infographic that summarized my like five key findings and in there, um, the first one is that I found that people actually had the individual capacity. So they had, they had the ability to use these technologies. They had programs that they had created on their own, um, or else they were going to exercise programs in, in their community at the rec centers. Um, but when the pandemic hit, I actually found it was the healthcare system that didn't have the capacity. So the healthcare system wasn't offering technologies that could connect people. Um, and so although people had, um, been using FaceTime to connect with their friends and family prior to the pandemic, now the healthcare system couldn't connect to them. And so it's also thinking how can we build community capacity within the

healthcare system and specifically for specific illness groups that might not have had the dedicated resources. Um, and, and I saw that with COPD.

Dr. Camp (21:49):

And I think this would be really interesting for organizations like the BC lung foundation who works as part of their mandate to support people with chronic lung conditions. And I think that they may also have the same assumptions about who is using technology and how can we bring people together. I think that there'd be a lot of different support organizations where some of these myths would be crushed by your work and realizing that, um, that there are, there is probably a critical mass of people that are ready to go, but there's probably still quite a few people that aren't. So what do you think is the role of community? However, we want to define that to try to support people who continue to be socially isolated and are not adopters of technology, how can we help their growth and support?

Dr. Antonio (22:44):

Yeah, I think, yeah, it's really important to recognize that there always are going to be people who don't want to use technology and that we should also have alternative solutions. So if people aren't connected online, is there a way to connect with them over the phone, um, and to understand that also people choose different technologies. So even the platforms I use, sometimes I find I'm not connected with my friends cuz they're using a different platform <laugh> and, and that can create disconnection. So to really have, I think, diverse ways of connecting with people and to give people the option of what they wanna connect with, whether it's phone or surgeon teleconferencing or text message, um, rather than I think the healthcare system or community organization saying this is how you have to connect.

Dr. Camp (23:31):

That's really true. I think we tend to try to get to the approved technology, um, and say, okay, this is what we've decided for privacy, et cetera. This is the way to do it. And maybe that isn't, that's gonna leave people out potentially if we don't offer all of those different options. And I work with lots of communities throughout British Columbia and the internet doesn't exist in many or the bandwidth is much too low for any kind of zoom. So sometimes the basic landline telephone is the only way to really, uh, connect with people. So I, I think it's really interesting that you heard that echoed in your work that many options is where we wanna go. Although that may seem complicated, it offers the most chance of an equitable offering of, of this connection.

Dr. Antonio (24:24):

Exactly. Yeah. Yeah. And I was going to add to just the, um, ability for the, so around the social isolation. So to see if there's a way to connect with people who are living with similar illness experiences, um, that that's really what I was hoping to strive towards. Um, and so is there a way people who wanna connect over the phone, maybe there's a way that they can connect with other people over the phone, um, or with similar, similar interests, even beyond their illness, about other, other things in their life that might be of interest. Um, and then also people who are using technologies quite a bit, um, the peers around them. Um, often I saw people teaching each other, um, how to use technology. And so to have those peer supports around, um, in various ways, uh, can really help build the community capacity as well.

Dr. Camp (25:19):

You commented about the infographic. And I wanted to pick up that thread because, you know, knowledge translation is something that we talk a lot about in research. And we talk a lot about in

healthcare, how can we take these studies that often get published in a peer review publication and be able to share the knowledge of that work in ways that are more accessible, accessible to clinicians, accessible to patients, to stakeholders, policy, government, anyone. And I think you address that head on, I mean, just even your comments about having the presentations as you went along, having that really integration of that knowledge transfer throughout your study. And then you've got a really cool website and you've put resources on there and you've got your top findings. So people don't have to go through a 300 page thesis or a very detailed series of research articles. They can get the key information in a very approachable way. I think it was very approachable. I was fairly excited to see it. So how did you get there? Was that a decision you made up front based on your mentorship from other people that you work with or did that evolve as you were working more with your patient partners and the participants in the study?

Dr. Antonio ([26:41](#)):

Yeah, I would say it evolved, it evolved more, but it wasn't unfortunately how it's supposed to be, I think, but engaging with the community, um, and patient partners. Um, I didn't go that avenue, but I really encourage people to go that route. Uh, I did ask people when I was out in the community, what would work well for them. Um, I asked about videos and people actually said, no videos probably wouldn't work well because there's people who won't watch the videos who aren't online. And I also was aware that, yes, I had this huge dissertation how to condense it down to really, um, quick eye catching, I guess, um, way of getting people interested in the topic. And also as a way to challenge some of, I guess, societal beliefs around who's using technology, um, and the ways technology are being used. Um, so I wanted a really quick visual to communicate that. And the other thing I found actually, when I first started, um, writing my dissertation, doing the visual piece actually helped with my analysis. So I used PowerPoint a lot to create these different images. Uh, and then as I started going through that, I changed programs because I found that actually there was a one that, um, really allowed me to develop these infographics more. So I went to CANVA, but it just helped me in my thinking as well. And so I created, I think two by the time my dissertation was completed. Um, but then I continued on because I really wanted to have something that could communicate really succinctly, um, the key messages, uh, because yeah, it is quite a huge piece of work <laugh> to condense down. So yeah.

Dr. Camp ([28:23](#)):

Well, and I'll put the link to your website in your show notes, have you been getting sort of a lot of visits to that website? Do you have a sense about that it's becoming a place where people might be visiting either from your study or, or from other places, uh, in Canada or worldwide?

Dr. Antonio ([28:41](#)):

Yeah, I don't know. Cause that's one of the limitations is I'm not able to track how many people, so the particular website service that I use doesn't track. Um, I think what're also mentioning is it's important not just to create the website, but to create different ways of getting word out about the site. So that's, that's the next step I'm looking at is how do I promote it much more broadly, um, to a wider audience. So, so this is great.

Dr. Camp ([29:08](#)):

This is great. Yeah. And we'll tweet about it as well to make sure that that's all the things that we can do at least within our little pulmonary rehab and COPD community. So now you're a postdoc, what are you doing now?

Dr. Antonio (29:21):

Yeah, so I'm a postdoc at the university of Michigan. Um, and as you mentioned at the school of information and my work is continuing on around digital health equity. Um, and so there's two projects that I'm working with, um, who, uh, Dr. Tiffany Veno is the principal investigator. Uh, and one of them is around telehealth and, um, providing access to telehealth for people who are under resourced. Uh, and so I'm just finishing off a paper and talking about an intervention that was looking at how digital navigators or people who can help, um, connect people to telehealth can, um, be customized for, for people in low income populations. And the other project I'm working on is around transportation. So, um, particularly in, in the Detroit area, which is where the study is occurring, um, transportation is a huge barrier to healthcare appointments. And so how can we actually design a tool that connects people to transportation services? Um, and in particular, what we're thinking about is the idea of a time bank, which is a concept where people exchange services, um, rather than monitoring exchange. So you might be really good at, um, painting, um, or, or maybe you are a tutor, so you can exchange your service for transportation services to your healthcare appointments. So trying to, again, build that community capacity by looking at the idea of the time banks with, um, with healthcare organizations and then developing this tool that connects them.

Dr. Camp (30:57):
And is that across a broad variety of different health conditions, or is that still working with people with chronic lung disease?

Dr. Antonio (31:04):
Yeah, this is across a variety of, of health condition. And my, my interest still continues to be around people living with a chronic illness, in particular around CPOD, um, and digital technologies and equity. I would say those are the kind of the threads that connect all my research, so yeah.

Dr. Camp (31:20):
Yeah, fantastic. Well, I'm excited to hear more. I think that, you know, as you've learned in your research, people that have COPD have so many limitations on their day-to-day activities, and even their ability to participate in that sort of, uh, barter transfer of skills, you know, I can imagine it for some people, a lot of the things that they used to be able to do and have expertise in they've had to give up because they're too short of breath, uh, or too fatigued. So it will be so interesting to, I guess, understand how their community builds while they're still dealing with the limitations of their, of their condition and using that sort of, uh, exchange system could be really interesting for sure.

Dr. Antonio (32:07):
Yeah. Because that's the other thing I think, um, I heard too, is that people really wanna contribute to society, um, and to their broader community. Uh, and so how can you actually facilitate that?

Dr. Camp (32:19):
Yeah. And people get so used to, to coming into their healthcare provider and being seen as their condition. Uh, so whether they're coming into pulmonary rehab or into the clinic or whatever, they're the person with COPD and they have this whole life right, of experiences and skills, and that doesn't enter into the conversation as much as symptoms, quality of life activity, that sort of thing. So I think it's wonderful that your work is starting to bring that whole person back into the conversation and into that community building. So. Fantastic!

Dr. Antonio (32:53):

Thank you. Um, <laugh> I do have one more thing I could add to that. Um, but yeah, I was just going to say that, I think what that talks about is really the importance of people's social worlds. And this is what I saw in my, in my research was that people really create a distinction between all their different worlds. So they'll have their COPD illness world they'll have their social world online. Um, and they'll have their in-person, um, world as well. And sometimes they really want to keep this separation and it's quite intentional, um, because people don't wanna have to think about their illness all the time. We all need distractions in our life. And, um, yeah, that's what I really saw with how people were using technology in different ways.

Dr. Camp (33:36):

Yeah. I've, I've even seen that in research where the question will be, how do you, how do you rate your health? And people will say, well, other than my breathing, it's great. So they'll circle great because they can compartmentalize. They can say, well, I, my health is fine. I have this breathing thing, but my health is fine. And often it's sort of many comorbid conditions after they start to pile up where people might start to rate health as moderate or poor or whatever. So I think that we do that. We try to figure out, you know, I'm not gonna just be this person with a breathing problem. I'm going to, I have many facets of my life and I'll live my life in a way that does compartmentalize them as much as I can.

Dr. Antonio (34:21):

Yeah, yeah. It is one thing I, I just did struggle with in choosing my topic, because I was like, if by recruiting people with COPD I'm automatically putting their illness first. Right. And I do see people much bigger than just what their condition is.

Dr. Camp (34:38):

Well, thank you so much for joining me today. It was fantastic to hear about your work. I think it has so many interesting tie-ins with pulmonary rehab, the technology, understanding people's whole experience, that whole idea about building community and the capacity of that community to continue to support one another. I, I think it's gonna be great to see where your future work goes, and hopefully you can come back on the podcast in the future and tell us, uh, what you're doing next.

Dr. Antonio (35:08):

Great, thanks so much.

Dr. Camp (35:10):

So thank you everyone for joining us on this episode of LungFIT, and we will see you again soon for our next session. Bye for now.

Thanks for listening to LungFIT. Show notes and transcripts can be found on our webpage@lungfitdotmeddotubc.ca. If you found this episode interesting and helpful, please consider reviewing the show on iTunes and tell your friends and colleagues. If you want to suggest a topic for a show, please leave a comment on our webpage. Thanks for listening.