Speaker 1:

The Cancer Assist Show hosted by Dr. Bill Evans and brought to you by the Cancer Assistance Program. Help when you really need it.

Dr. Bill Evans:

Welcome to the cancer assist podcast brought to you by the Cancer Assistance Program here in Hamilton, Ontario. Today, we're going to tackle a subject that's not often talked about and should be about exercise and cancer. That's an important one for people to become aware of, as those of you who have listened to podcasts before from the Cancer Assistance Program, you know that program brings you help when you really need it. And the service provides free rides. It provides equipment loans. It provides nutritional support. And it provides information. And that's what we're going to do today, some information that really valuable to you if you're a cancer patient, or if you're someone who is family to a cancer patient or friend. And you could pass along this advice about importance of exercise after a diagnosis of cancer.

Dr. Bill Evans:

And I have a very special guest who brings together knowledge about exercise and fitness training, as well as the aspect of knowledge translation. Because we really need to get this information out. And not just to the public, but actually to the healthcare professionals themselves, because they could be prescribing exercise to their patients, but mostly are not. And we'd really like to encourage that.

Dr. Bill Evans:

So I want to welcome Sarah Neil-Sztramko to the program. And it's great to see you Sarah by Zoom, and introduce you as a member of the Department of Health Research Methods, Evidence, and Impact at McMaster University and a knowledge translation advisor at the National Collaborating Centre for Methods and Tools at McMaster University. Great to have you.

Sarah Neil-Sztramko:

Great. Thanks so much for having me Bill. I'm really excited to be here today to talk about this with you.

Dr. Bill Evans:

Well, I'm really looking forward to it as well. Because as I said, I think this is a topic that's not been talked about nearly enough. But why don't you tell us first a little bit about yourself, and how you got to where you are today with those job titles and departments that have very long names. What was your interest in moving from kinesiology into methods research?

Sarah Neil-Sztramko:

Yeah, I'd love to. So I started out with my undergraduate degree in kinesiology at the University of Western Ontario. So I was really, really interested in exercise and the role that exercise could play. I was a competitive figure skater growing up and a runner. So really passionate about exercise in fitness training.

Sarah Neil-Sztramko:

And as I went through my degree at Western, I really kind of shifted my interests from how do we make the fastest people faster, the strongest people stronger, to really as I learn more about the role that exercise and physical activity more generally could play in both preventing a number of different diseases that are prevalent today, but also helping people who have a number of chronic diseases to treat and manage some of their symptoms.

Sarah Neil-Sztramko:

So while I was at Western, they started a new minor program in rehabilitation sciences that I was fortunate enough to be able to join with. And that's really what sparked my interest, and how can we use exercise as a rehabilitation tool for people both to prevent and for people who are managing chronic diseases in their life.

Sarah Neil-Sztramko:

So while I was finishing up at Western, I did some volunteering in a research lab there and became really, really excited and interested in research. So that led me to my master's degree in rehabilitation sciences at the University of British Columbia working with Dr. Kristin Campbell, who was a new professor there at the time. Brand new. I was her very first graduate student. But now she is an internationally renowned expert in exercise following cancer, and was one of the main authors in the recent physical activity guidelines for cancer survivors that were released in 2019.

Sarah Neil-Sztramko:

And while I was there, I just became really interested in the role that exercise can play both during cancer treatment and following treatment. So we had a number of really interesting studies going on at the time. I was really seeing the benefits that exercise could play for primarily at the time we were doing studies in women who were undergoing breast cancer treatment.

Sarah Neil-Sztramko:

But the thing that I found frustrating was we had a really hard time getting oncologists to refer people to our studies. And when I would talk to family and friends and they would ask me what I was doing in my research, and I'd say we were looking at the role of exercise during cancer treatment, they would say, "Exercise during cancer treatment? Is that safe? I've never heard of that." So became sort of, kind of perplexed by why we had such interesting research going on with such positive outcomes. And not only was I reading about it in the literature, but I was seeing it on the ground. But why weren't people taking this up into practice and why didn't everybody know about this?

Sarah Neil-Sztramko:

So I continued and stayed at UBC to do my PhD in population and public health. At the time thinking that well, if I just really learned how to do some high quality, good rigorous research, then of course people would take it up into practice. And throughout my degree, realized that this problem, the knowledge translation problem that we refer to in research or that gap between what we know from research studies and what is done in practice was not unique to the area of exercise and cancer. That we see this problem across a whole bunch, a whole number of topic areas, probably most clinical research. There's always this gap or time lag between what we find in research and when that's actually taken up into practice.

Sarah Neil-Sztramko:

So as I was finishing up my doctoral studies, just really became interested in what the methods that we can use as researchers to help sort of speed up that process and facilitate that translation of the findings from research studies, things that we know in the university setting out to the communities or populations that need it. So that's what brought me to McMaster to learn about knowledge translation from Maureen Dobbins, who is one of the Canadian experts in knowledge translation. So I was very fortunate to be able to learn so much from her and be involved in some research around public health knowledge translation through my time as a post-doc. And now, being able to bring some of those methods that I've learned back to what my real main area of passion and interest is around exercise during and after cancer treatment.

Dr. Bill Evans:

Wow. That's quite the story. You zigzaged across the country, and you've ended up in the right place. And we're certainly delighted you're here in Hamilton and can impart that knowledge that you've acquired about exercise, and cancer, and knowledge translation, and weld them together. And I'm really keen to learn how you're going to motivate those oncologists prescribe exercise for their patients.

Dr. Bill Evans:

I have to confess as a medical oncologist I learned fairly early in my career when I was working at the Toronto General Hospital the negative impact of not paying attention to physical activity in cancer patients. Particularly patients who I would bring in for arterial infusions of chemotherapy. Would be treating some patients with hepatic metastasis, infusing drug up from their femoral artery into their livers. And they had to be at bed rest for five days.

Dr. Bill Evans:

And I could watch the dramatic effects of the cancer shrinking, and I also watched the dramatic effects of the muscles decreasing in size. And at the end of those five day infusions and a series of them, these patients have become really, really weakened. And it takes so much more time to gain back muscle strength than it is to actually build ... well, it takes a long time to build back the muscle strength you lose. Right? I really was impressed by that observation.

Dr. Bill Evans:

So I've come to really realize it's so important to keep an eye on the whole person, not just be treating the cancer. And I guess that body of information has become quite significant, that exercise makes a difference in a variety of different ways to cancer patients. Doesn't it? Maybe you want to talk a bit about that.

Sarah Neil-Sztramko:

Absolutely. Yeah. We see lots of evidence from a number of different angles on the benefits of exercise and physical activity for people both during cancer treatment and following treatment. And I'll just differentiate a little bit the difference between exercise and physical activity, because we talk a lot. And oftentimes in lay language, we use those terms interchangeably. But when I'm speaking about exercise, I'm talking about things that are really structured and purposeful for a set period of time, really with the intention of improving or maintaining our levels of fitness. Whereas when I talk about physical activity, these are more general, being physically active, getting out and moving. But maybe potentially less structured or less intentional, usually lower intensity. But the great thing about when we look at people undergoing cancer treatment and in the survivorship period is we see benefits from both the more structured programs, but also just general physical activity.

Sarah Neil-Sztramko:

So counter intuitive, probably the strongest evidence for the benefits of exercise during and in the post-treatment period is for fatigue. So many people listening to this podcast will be very familiar with that deep debilitating fatigue that comes along with both cancer treatment, and for many people can persist into that post-treatment period for a number of reasons, which we don't really fully understand. And there's some hypothesis that it's both a result of the treatment itself and the cancer itself, but also some of that deconditioning that you were talking about by seeing people for a number of reasons who have reduced activity during their treatment period. They really lose that muscle mass and lose that functional capacity. So we think that that's both one of the contributors to fatigue during the treatment period. And we see that exercise can really help to improve fatigue levels, both during treatment and after.

Sarah Neil-Sztramko:

And a number of years ago, there was a systematic review published, which a systematic review is a study where researchers take all of the evidence that's been published on a certain area, and they actually compare the effects of interventions or studies that had looked at the effects of exercise or physical activity on fatigue. And then they compared it to the effects from other studies that had looked at some of the pharmacological treatments that we can give to patients to help to treat their fatigue. And actually found that exercise had a much stronger benefit than any of the pharmacological treatments that could be given.

Sarah Neil-Sztramko:

So it's a bit of a tough sell when people are really feeling that deep fatigue to say, "Just get up and exercise. Go expend more of this very limited energy that you have." But it is one of the strongest effects that we see is that benefit on fatigue.

Dr. Bill Evans:

I was going to say from assessing people's symptoms in Ontario, patients come into the cancer centers and complete the Edmonton Symptom Assessment Scale. And the commonest complaint is fatigue, right? And as a result, just as you're saying, many of the patients that I've seen over my career choose to just kind of wait out the treatment. So if they know they're going to get six months of chemotherapy for example, they kind of become couch potatoes during that time. And it's kind of counter-intuitive with fatigue that they should get up, and get moving, and try and kind of in a way, fight the fatigue to maintain the muscle mass and strength.

Dr. Bill Evans:

And certainly some of our chemotherapy drugs undoubtedly are damaging to muscle. We know some in particular damage the cardiac muscle. So it makes sense that that might also be damaging to the striated muscle in our legs, and arms, and so on. So those are things that are important to try and overcome.

Dr. Bill Evans:

There are some other interesting things in terms of quality of life. And I was always kind of surprised to hear that patients who exercise regularly found that nausea associated with chemotherapy was also helped with exercise. And perhaps that's something else you would speak to.

Sarah Neil-Sztramko:

Yeah, absolutely. So we see probably one of the ... the research hasn't looked at nausea quite as robustly as some of the other side effects. But certainly we see some reductions in nausea. But the quality of life aspect is huge, particularly in studies that have looked at exercise or physical activity that's completed in groups. So if you can find a partner or another person to exercise with, you really seeing that benefits in quality of life. So it's probably of course, probably some benefit to the physiological or psychological effects of exercise on our brain that we see from a number of studies outside of the cancer realm, but also that social support. That giving people someone to connect with during this really challenging time period. What we hear from those who take part in our studies is really that feeling of empowerment and control that they can take from taking part in exercise in a time where there is so much that is out of their control. So it's really having that benefit of increased confidence, feeling better. And that really has a huge impact on quality of life. So next to fatigue, the evidence on overall quality of life, both physical and mental health quality of life is probably the most overwhelming.

Dr. Bill Evans:

It's interesting that you mentioned the social aspects of doing exercise with others. When I was in Ottawa and we built a new cancer center, we built a fitness facility right into the basement of it. And what was interesting was the number of women with breast cancer who would gather and use the walking track on a regular basis. And they were both getting the exercise, but it was also almost a mobile support group, right? Everybody walking along and chatting about what their experiences were like and mutually supporting. So there is that social element, and it also encourages you to get up in the morning and go and do it when maybe you're not feeling like this is something I want to do today. I'm a little too fatigued. So having a schedule, having others you're doing it with, it really can make a difference.

Dr. Bill Evans:

Now we're talking about in the context of cancer, but maybe just take a step back, because exercise can also help to prevent cancer. And I think that's one of the important things that people should be aware of. Not all cancers of course, but there are at least a couple of cancers where the evidence is quite a compelling that regular exercise can make a difference.

Sarah Neil-Sztramko:

Absolutely. Particularly with post-menopausal breast and colorectal cancers, where our evidence is the strongest. Again, it's always a bit challenging to look at because when we look at these studies, we look at the population level. So if we compare a population of people who exercise and a population of people who don't, we see that there will be more cases of cancer in the group that has an exercise by and large.

Sarah Neil-Sztramko:

On an individual level, we still don't know aside from certain genetic factors that we know are cancer causing, it's hard to tease down, down at the individual level what is it that caused one individual's cancer? So just keeping that in mind.

Sarah Neil-Sztramko:

But at a population level, if you're looking at ways to try to reduce your risk of cancer over the life course, certainly exercise as well as avoiding smoking. Those are two of the best things that you can do for yourself to help reduce your overall risk of getting cancer at some point in your life.

Dr. Bill Evans:

Thank you for mentioning smoking. As a lung oncologist, I'm always harping on smoking cessation. And it is one of the best things that anyone can do in terms of ensuring better quality of life and avoiding some of the diseases, including lung cancer and chronic obstructive airways disease, etc. So very important just healthy lifestyle choices.

Dr. Bill Evans:

It's been surprising to me over my career that the volume of evidence supporting exercise and cancer has increased, and it's quite significant, and yet not widely adopted. And I wonder what your thoughts are on that. And what are the reasons why we haven't got around to implementing some sort of fitness prescription for cancer patients routinely?

Sarah Neil-Sztramko:

Yeah. Great question. So I think I have based on my own observations, but also the literature, we have a number of suggestions as to why this hasn't been adopted widely, and potentially some things we can do to overcome that.

Sarah Neil-Sztramko:

So I think at an individual patient level, like I alluded to earlier, particularly with some of the symptoms and side effects of cancer and its treatment that people are experiencing, exercise can be a really tough sell at certain time points. So one thing, we're working. We always work with people who join our exercise studies and that we're working with individually. Just to remember that when we talk about exercise and trying to meet the exercise guidelines of 150 minutes per week, that's a great goal. But some is always better than nothing, and more is always better than some. So when we think about the number of different chronic diseases and just general health overall, just even being able to get up, sometimes it's just going to be a walk around the block that's feasible and achievable for someone in those few days post-chemotherapy infusion. Or certainly after surgery, many people have some restrictions and limitations depending on the type of surgery that they've had.

Sarah Neil-Sztramko:

So finding ways to encourage people and giving people really concrete examples of what those small changes are. To incorporate bits of physical activity into their days throughout their cancer treatment I think is really helpful. And sometimes have we missed the mark by talking about where we see the evidence. At this, we really want people to achieve our guidelines of 150 minutes per week of moderate to vigorous physical activity. But for some people, it's just not achievable on any given day or for certain individuals. So I think trying to shift our message to fitting in as much as you can when you can. What maintaining activity is like for someone who was training for a marathon or attending their local CrossFit gym prior to treatment is going to look very different from someone who hasn't been able to incorporate exercise into their life pre-treatment. So keeping in mind where people start from, and just taking those baby steps and starting to incorporate those things slowly I think is one strategy that we can use to help build that up over time.

Sarah Neil-Sztramko:

I think from the oncologist's perspective, although as exercise professionals, as researchers in this area, we want every oncologist to be shouting this from the rooftops. But we also know that there's a number of, particularly in the world of oncology, probably more so than other medical specialties, the frequency of new evidence that's coming out on treatment types is very rapid. So it's really hard for oncologists to stay on top of all of that, on top of staying on top of lifestyle advice. So physicians are not trained very well during medical school or during residency about lifestyle advice. I think that's one strategy that we can look to. Is there any way to build some of these things into a medical school training at the very base level so that we can start to if not expect them to be exercise professionals who are giving specific exercise prescriptions, at least building in that appreciation of the importance of exercise and other lifestyle things early on.

Sarah Neil-Sztramko:

We see some interesting studies that physicians who are more active themselves are much more likely to recommend physical activity to their patients. So I think that's one thing we can start to build into training.

Sarah Neil-Sztramko:

I think having a member of the care team that is responsible for that, whether it's a physiotherapist, or a registered kinesiologist. And Ontario kinesiologists are a regulated health profession, but that's not the case in other areas of the country. Having someone embedded within the cancer center that's on the interprofessional team that can serve as that point to answer those questions and having services within the cancer center and in the community will be really important moving forward. So that if oncologists are talking about exercise to their patients, they know they have someone to send them to for that follow-up. Which I think in some of the major centers in Canada, we have now. But in some of the smaller centers, we still don't. So I think building that capacity is really important.

Dr. Bill Evans:

So one of the things Cancer Care Ontario has done I guess in trying to move this along is actually create a guideline on exercise in cancer patients, to synthesize the relevant information and to try and get a higher level of awareness amongst oncologists about the benefits, with a series of recommendations. The first of which was to actually make patients living with cancer aware that they can safely engage in exercise. Because I'm sure a lot of patients just are uncertain. And in fact, as an oncologist, you would know there is some patients where it beyond safe to exercise, because maybe they have a disease like multiple myeloma and their bones that are thin because of the disease. And exercise could conceivably lead to a fracture. So having a discussion with the physician whether it's even safe to exercise as a necessity. But the vast majority of patients, it would be quite safe for them to undertake.

Dr. Bill Evans:

And then talk about moderate degrees of exercise. Well, somebody tells me to exercise moderately. I'm not sure that I know what that is. So there are gradations of exercise. Maybe just speak to that so people have an idea of what it is. What kind of exercise you engage in to have a low level, what's a moderate level, what's a high level of exercise activity defined as?

Sarah Neil-Sztramko:

Great question. I think a really important distinction, because this is sort of that when I speak to those individual differences, what's moderate to one person is not going to be moderate to another person. It's going to be light to one person and high intensity to someone else.

Sarah Neil-Sztramko:

So when we're talking about light physical activity, those are things where you're able to carry on entire conversation. You don't feel like your heart rate's really up. You're definitely not sweating. Or something you could continue on conceivably aside from cancer treatment and symptoms for hours on end. So for some people, that might be gardening. For some people, that could be a slow stroll through the neighborhood or walking their dog. So those are really those lighter intensity activities.

Sarah Neil-Sztramko:

Moderate intensity activities is where you start to feel your heart rate increase a little bit. You might feel a little bit of shortness of breath. You could certainly still talk. But it might become challenging to carry on a very long conversation. You might need to take some breaks to catch your breath there. So you're feeling a bit warmer. You're feeling your blood pumping, heart rate increasing a little bit. But still something you could converse easily with people.

Sarah Neil-Sztramko:

Higher intensity is where you could say a sentence, but not much more than that. So really feeling that heart rate increase, really feeling that you're starting to sweat, you're getting warmer. So that would be for many people things like running or cycling, faster swimming. Brisk walking for many people. Walking up a hill. If you're in Hamilton, running and doing the escarpment stairs versus just a staircase at home. So those kinds of things. So really getting that heart rate up.

Sarah Neil-Sztramko:

So we use the talk test often to gauge intensity. So again, moderate activity is you can carry on a conversation generally. High intensity, you can say a few words or a sentence. But carrying on a full conversation would be challenging. You certainly wouldn't be able to sing.

Dr. Bill Evans:

And the recommendation is for 150 minutes of this moderate level exercise over three to five days, right?

Sarah Neil-Sztramko:

Yeah. 150 of moderate to ... less vigorous. So if you're doing vigorous exercise, then you could get away with the 75 minute range. And that sounds like a lot. But if you break it up throughout the week, it can be achievable. So that's sort of 30 minutes, five days a week. Could be broken up as well into 15 minutes in the morning and 15 minutes in the evening.

Sarah Neil-Sztramko:

So I think one of the most common misconceptions is that if I'm going to meet these guidelines, I've got to be sweating it out at the gym, or joining these intense classes. But certainly, it's something that it doesn't need to be 30 minutes or 50 minutes, an hour of sustained activity. It could be a 10 to 15 minute walk a couple of times a day around the block. And it's going to probably vary highly across your course of treatment. So like I mentioned earlier, those few days after chemotherapy, we see in the research studies when we look at levels of intensity, even if people who are exercising throughout their whole course of treatment, we see these sort of waves that are in line with their treatment schedules. People are able to do more at certain periods, and that's where really listening to your body where you know that best, and just gauging with how you feel on that day. And some days it may be very little, and some days you might have a bit more energy and you're able to do a little bit more. And that's great.

Dr. Bill Evans:

Now the Cancer Care Ontario guidelines also recommend resistance training a couple of days a week. Maybe best explain resistance training and how much of that should we incorporate into our fitness workout.

Sarah Neil-Sztramko:

Yeah. We like to aim for two days a week of some types of resistance training, which I think often comes to mind. The bodybuilder, lifting weights in the gym. But it's really, resistance training is any exercise that we move our muscles or our body against an external weight. And that could be your own body weight. So when we look at the evidence, we're aiming for two sets of 12 to 15 reps. So doing each exercise 12 to 15 times as one set, and then doing that a second time. For exercises that hit all of our major muscle groups. So things like squats. And that could be standing up and sitting down on a chair, getting up and down from a chair 10 times. That can be an example of resistance training for many people. To make it a little bit harder, you could rather than sitting all the way in your chair, you just hover just above. So you're not kind of getting that break in between.

Sarah Neil-Sztramko:

So lots of ways to scale those. Fortunately, we have so many resources online to see what those are, to see examples of these. And we have programs in the community to help people during their cancer treatment and after to get some ideas of how to incorporate some resistance training into their days. But by and large, you don't need to go to the gym. You don't need to be trying to lift those heavy weights. There's lots of simple body weight exercises that one can do to help to build up their muscle mass and maintain the muscle mass that they have during treatment.

Dr. Bill Evans:

So the challenge is to move from guidelines, and this great advice, and the evidence into reality. So that's the knowledge translation piece. So we'll take a brief break here and come back in a moment and talk about that knowledge translation activity. Okay? We're talking with Sarah, and we'll be back in a few minutes.

Speaker 1:

We'd like to take a moment to thank our generous supporters, the Hutton Family Fund and Banko Media who make the Cancer Assist Show possible. The coronavirus has not stopped cancer. Instead, it has added to the isolation and challenges already faced by cancer patients and their families. From transportation and equipment loans, to personal care and comfort items, parking and practical education. The Cancer Assist Program remains committed to providing free, essential support to cancer patients in our community. With no sustainable government funding, we need your help so we continue being there for those who depend on CAP to stay safely at home. Individual and corporate support of signature events third-party fundraising efforts, and financial gifts are greatly needed. Your support is vital. We can get through this together. Visit cancerassist.ca to see how you can make a difference in the lives of cancer patients and their families.

Dr. Bill Evans:

All right. So we're back with Sarah Neil-Sztramko talking about how to translate all this knowledge about the benefits of exercise into reality. And a lot of that's got to be done through research, understanding the most effective ways of putting evidence into practice. And Sarah, I understand you're involved in a number of research activities to try and understand how best to do this. Maybe somehow to motivate oncologists to talk about it, or other healthcare providers that sometimes feel we can't just load everything onto the oncologist, because I think as you referenced earlier, cancer care has become complicated and there's an awful lot of things that oncologists have to do and think about to manage the patient's treatment well, let alone think about some of these behavior and lifestyle issues. So maybe other members of the healthcare team around the patient could be helping to direct the patient towards this sort of activity to help their overall quality of life. So what are some of those strategies, and what's some of the research you're doing going to show?

Sarah Neil-Sztramko:

Yeah. So I think one of the really important principles I guess of knowledge translation research is as researchers and academics historically, we've sort of sat over in our university bubbles and thought about all the things that everyone should and could be doing. And if we only tell people to do this, well then they'll do it. We just have to make them aware, and people will take things up. But I think we've learned through decades now of research in a number of different topic areas is that it's not sufficient, often necessary. Of course, people need to be aware of things before they're ready to take action on anything. But necessary, but not sufficient to achieve widespread action or implementation as we call it.

Sarah Neil-Sztramko:

So one of other key principles of knowledge translation, both research and practice in the real world, is engaging with the stakeholder, the various stakeholders that are involved to identify what those strategies are. So if we're talking about exercise during cancer, we're talking about engaging with the oncologist to find out aside from just awareness of what the guidelines are, what are the other things that really prevent you from talking about exercise in your regular clinical practice with patients? Is it the time barrier? Is it that you're not really sure how to answer those questions? Is it that you don't have someone else on the team to refer to? What are those barriers? And identifying strategies to help overcome those barriers. It's talking to the nurses who are answering those questions as well. It's talking to patients and their family members about what are those barriers.

Sarah Neil-Sztramko:

So it's building and using the knowledge of the people who have that lived experience and knowledge that we as researchers do not have on our own, to build out and identify what those strategies are. And then building accessibility and places where people can go and tools to help people engage in those practices or behaviors as well.

Sarah Neil-Sztramko:

So that's the focus of a couple of different research studies I can tell you about through the Survivorship Team Grant funded by the Canadian Cancer Society, which is led by Jennifer Jones at Princess Margaret, Dr. Jennifer Jones in Toronto. So we're conducting a series of three different studies, both in Toronto, in Vancouver, in Saint John, and St. John's where we're looking at trying to move cancer rehabilitation programming particularly focused on exercise into real-world clinical settings at those four sites. And hoping that what we learn from those studies will then be able to be expanded to other sites.

Sarah Neil-Sztramko:

So the three projects, the first is called implementing an electronic perspective surveillance model for cancer care in those four settings. So that electronic surveillance model is where patients are able to actually use an online app or website to actually report some of their symptoms and side effects throughout treatment. And there's been some interesting studies to show that when we monitor those things proactively in real-time and we're able to refer people to the appropriate services, rehab services early, that we're actually able to mitigate some of those harmful effects.

Sarah Neil-Sztramko:

So for example, if a woman starts to feel some heaviness or early signs of lymphedema, we can refer them to a lymphedema physiotherapist through rehabilitation and help mitigate some of that earlier, rather than waiting until they're at the point where they've got full blown lymphedema, it takes some time to get referred to physiotherapy. And trying to intervene and support them at that later point in that symptom and that side effect is not as effective.

Sarah Neil-Sztramko:

So by intervening, identifying some of the symptoms early. Or we talked about fatigue. So you're experiencing really high levels of fatigue. First are here some things that you can do, and we can maybe refer you to the appropriate services that are available to help you manage that fatigue. And one of that will be through exercise. So we're looking at embedding that within the regular cancer care system at those four sites, and it'll be really interesting to see the results. And the goal of that study really is not to look at whether it's effective, because we know from the research studies that that model of care is very effective. But how do we actually put it into practice and make it something that's going on after the research study ends? So that's one we're working on.

Sarah Neil-Sztramko:

The second is looking at a virtual exercise program. So right now at Princess Margaret, they have the care program which is an in-person exercise and survivorship rehabilitation program that people who are patients at Princess Margaret can take part in-person. Prior to COVID of course it was in-person. But how can we adapt that and deliver it online so that it can reach more people? So it can be hard to get Downtown Toronto multiple times a week to attend in-person programming. It takes time to drive or take transit down there. People have to pay for parking. All sorts of barriers, even to those who have access to that program. So by holding it online, can we increase the accessibility so that a wider range of individuals can take part?

Sarah Neil-Sztramko:

And then the third study as part of the team grant is again, adapting that same care exercise program to people with metastatic cancer. So early on in the research, a lot of the evidence was focused on people with early stage cancers. Primarily breast cancer initially, and then moving into prostate and colorectal cancer, the more common cancers that we see. But there's a growing body of evidence to show that being active for people with metastatic cancer and actually again really improve their fatigue, help them manage their various symptoms, improve their quality of life in that time period. So adapting that program to expand again the reach to a group that has really been left out of a lot of the programs and services that have been offered previously.

Dr. Bill Evans:

So those are all extremely interesting research studies. Practically for say patients living in the Hamilton area, are the resources now, programs that they can attend that will allow them supervised exercise activities?

Sarah Neil-Sztramko:

So everything is a little bit disrupted right now of course due to COVID. But hopefully sooner rather than later, we'll all be back in-person exercising together. At McMaster University, there is the PACE Physical Activity Centre of Excellence, PACE program that's held there. And they have what's called the MacWarriors program which is run by physiotherapists and kinesiologists. They're highly trained and specialized in providing that in-person, right now virtual, but an in-person exercise programming for people who've been diagnosed with cancer. We also have the CanWell program run through the YMCA. And then also Wellspring has a number of clinics around the GTA that typically offer in-person programming for individuals with cancer.

Dr. Bill Evans:

And are there resources for people who might be listening to this podcast in more remote areas that are online? I know a lot of people exercise, do Zumba classes and so on. Are things that are appropriate for cancer patients available on the internet?

Sarah Neil-Sztramko:

Yeah, absolutely. So the American College of Sports Medicine, or ACSM has a repository online. A lot of the resources there are American, but there are quite a few online programs as well and some Canadian programs. So they have a repository of programs available around the world for people who are undergoing or post cancer treatment. So that's a great place to check out. It's being updated on an ongoing basis. So they have a number of different types of exercise programs. So hopefully, everyone can find something that interests them. And this has been one of the silver linings of COVID has been primarily a lot of these programs were only offered in-person. So really, only available to people who live in that geographic area, which these tend to be congregated more in the urban centers. But now a lot of them have made the shift to online programming. And some degree of that I think will continue on after the pandemic.

Sarah Neil-Sztramko:

One of the programs I'm involved in through the University of British Columbia is called the Survivor Program for men with prostate cancer. We had been rolling that program out across the province in partnership with the BC recreation services and in-person programming at a number of community centers. Some programs will return to in-person. BC has lifted some of their public health orders for the summer. So there'll be some outdoor in-person programming happening through the summer. But we are still going to maintain an online program, because there's a number of rural areas across Northern British Columbia in particular. And those people would never be served by an in-person program, because there just isn't the demand there. So I think that program will continue to run online and I'm sure others like it as well, even as the pandemic ends, which will be great for people who are living in rural and remote areas. Or people who just have busy lives, who have potentially young children or caregivers for older parents as well. And leaving the house and getting somewhere at a certain time is just an extra challenge. So I think that there's some positive things that will remain in all of our shift and comfort with online programming.

Dr. Bill Evans:

Absolutely. And also, we have some long and cold winters. And there are days you don't want to go out very badly. So maybe you could just blue sky for me for a minute. With your research and with our knowledge of exercise, if we were to have this conversation say in another I'll say 10 years, what do you think we'll be doing? Will we really be implementing fitness training for many or most of our cancer patients? Would that be your dream and expectation?

Sarah Neil-Sztramko:

Yeah. That blue sky image is great. So let's think positively, especially right now during COVID. I think when we look at something like cardiac rehab, so if you think about years, and years, and years ago, if someone had a cardiac event, they were told to go home and rest. Nowadays, I think that most people would be familiar with the idea of cardiac rehab. That if you know someone that's had a cardiac event, that they get referred to. And the uptake of cardiac rehab has its challenges in certain areas as well. But it's very well known and there's a lot of availability for cardiac rehab services for those people.

Sarah Neil-Sztramko:

So my vision and hope is that one day, that we have cancer rehabilitation services in the same way across the country. And not just in some of our more highly resourced urban settings. So that when someone is diagnosed with cancer, they have access to a professional who has some in-depth knowledge about what are some of those safety considerations that you brought up. So if you have bone metastases for example, there's certain limitations. So women post breast cancer surgery have some surgical limitations around what they can do in their upper body. So things like that. So everyone would have access to a qualified exercise professional who can discuss some of those things with them that all oncologists are talking about the importance of this as part of their overall cancer treatment program. And that people have availability to access in-person services and tools for them to take home after. Because not everyone will be able to go to in-person services. And I think that's where cardiac rehab sees some of its challenges as well, that we don't just have in-person services for people, but that there's some remote or home-based programs or services that are offered as well for people to be able to do that outside of the hospital or clinic setting.

Dr. Bill Evans:

Well I share your vision, at least I really sincerely hope that we achieve that vision in due course, because I think it's the right thing. What cancer patients want is to live longer and to live better. And the quality of life of patients has clearly improved by fitness training. And the research is quite strong there. And you've shared a lot of that information with our listeners today. And I think we learned some other things. We've reminded perhaps people that exercise as a lifestyle choice can make a difference in actually getting cancer. Cancers like post-menopausal breast cancer and colorectal cancer, where the evidence is strongest. And certainly, the evidence has been amassed, but now, of the benefits once you have a diagnosis of cancer. But what we're learning and need to learn more of is how to translate that, to implement it. And I really wish you well in your research in identifying ways and means to make it possible, that the vision you've described can be realized maybe sooner than 10 years.

Dr. Bill Evans:

But I thank you very much for sharing all of this information. You're obviously very, very enthusiastic. And it takes that kind of enthusiasm to move things forward. And it's been a delight talking to you. So thank you so much. And I want to thank our listeners for listening, and also to remind them that we post new podcasts about the 15th of each month. So if you enjoyed this podcast, look for future podcasts on the 15th. And if you were interested in going back and hearing some of the podcasts we've done in the past, they're available on all your favorite podcast sites. From Apple, Google, Spotify, or go to the Cancer Assistance Program's website at cancerassist.ca. Until the next podcast, thank you for listening, and hope you enjoyed this. Bye for now.

Speaker 1:

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