>> Okay thank you all for joining us for the Shirley Ryan ability lab research

technology enabled healthcare that involves both care management and delivery systems that really expand and extend capacity and access that is the definition per the American telehealth association. So telehealth is the catch all category for telemedicine and telerehab being components of that.

You may hear me interchangeably use the terms. When I am talk today, I am talking about the use of technology to provide access to healthcare.

Now telehealth can include a lot of things. Delivering care via phone in real time or synchronous. It can involve live videoconferencing with groups of individuals and one on one. Also in live time but there are other interesting ways that technology is being leveraged to deliver care. There is asynchronous and one example here at University of Washington is some of our surgeons have developed an app where postsurgical wounds are evaluated by sending the patient home with instructions in the app.

And they can upload photos of the wound as it is healing to let the providers who should come in for a wound check and whose wound is appearing to be healing fine. The physicians like at it when they have time to sit down and do that. Not in real time so that is store and forward. That is remote patient monitoring.

There is interest in using apps for emotional health and web based E health that we started toF1 12 Tf1 0 03( )-121(d)23(e)23(l)22(i)22(v)33(e)23(ry)33( )]TJETQq0.00000912 0 6

So you might wonder why I became interested in telehealth beyond the work of David Mohr. Working and living in Seattle presents a number of challenges to many of the people we serve through the rehabilitation clinics. I am a psychologists and I practice clinical psychology in a rehab neural rehab clinic as part of a level one trauma center.

So people with pain and mood disorders and our hospital is the only level one trauma center in a five state region so we get people from all over including the Wyoming, Alaska, Montana and Idaho and Washington states.

Non pharmacologic interventions represent powerful tools in the management of chronic pain. They may provide effective pain relief for many patients in place of or in combination with pharmacologic approaches.

So based on the need we saw in the clinic and conducting research in person, we found that people wanted to be in the research studies and wanted to participate in studies of pain treatments but when they found they had to drive and park or take

And just to highlight a couple of things, these results are about to be published and about to be under review, but have been reviewed by Pecori -- for the study participants, those assigned to MS care compared to usually care it a statistically significant change in pain post treatment. With 38% reporting that the pain was well controlled.

Again using that outcome of a 30% or greater reduction in pain intensity. And 41% reported that the pain was well controlled at six months. So a lot of times we see this in the studies that people who get better tend to stay better up to a year as long as we follow them once we have learned the behavioral skills.

This is a busy slide it just shows you that in addition to pain intensity there are other measures that the combined in person telehealth integrated care impacted including pain interference, depression -- sorry, disability and fatigue.

So with that, we decided that although we found that we were having good reach and finding good outcomes in our research doing one on one telephone care, obviously the world is moving to videoconference. So we decided to explore videoconference delivery and group delivery because of the fact that if you do a group delivered behavioral intervention, people can learn from one another and they can also you can see more people at one time. So it is more cost effective potentially and they allow more people to access care through groups. So we turn to the literature and the idea of videoconference is not -- videoconference sessions in the behavioral realm is not all that unique. There are still not that many studies published out there. I did find a systemic review that found that there were about eight high to moderate quality studies in the review.

I think the review came out in 2019. Group videoconferencing has been used for pain in rural Australia, used for weight loss therapy interventions and stress management post cancer.

And the trend -- I mean this is -- the area is still small enough that we need to be mindful that there is not a lot of data but this analysis found that videoconference appears to offer advantages over the phone and tends to be associated with reasonably good outcomes so it merits further consideration.

With that I am going to tell you about a study that is ongoing called the adapt study and this is where we use videoconferencing to deliver mindfulness meditation and C BT together.

The adapt study is comparing mindfulness based cognitive therapy and cognitive behavioral therapy for chronic pain in people with MS use group delivered therapy. So eight sessions of the mindfulness based therapy or cognitive behavioral therapy.

And we decided to add a usually care condition so we have the care for people that don't get the usually interventions. The people are offered to participant in either intervention at the end of the outcome assessments. This is funded by National MS Society.

If you want to learn more about this, there is a web address there. I want to talk about the telehealth component of this. The study is still ongoing we have no results yet. But we use the Zoom platform. The HIPAA UW Zoom account and we have manual Zoom workbooks that we share as well as paper if people want them. We do because it is a study, we have the luxury of doing pretreatment tech training.

Where a research staff members contacts each participant and talks them through how to use Zoom and set up everything so that when they are ready to start the treatments they are all set. Interestingly we found that as time as gone on,

since the pandemic the tech training is taking less time because people are becoming more comfortable with using videoconference delivery.

And then we have weekly group supervision. We have a supervision session where the investigators that are experts in the treatments and telehealth including myself, we supervisor and consult with our study therapists who learn a lot from one another in addition to the investigators. And just to show you what it looks like. This is not a treatment group.

I would not share photos of patients but this is our consultation group and my colleagues who I will have pictures of later. This is where we are doing our consultation supervision for the treatment sessions. It shows you, this is what our screens can look like when we are doing group therapy. You can see everyone at once. And there are a lot of ways to navigate the Zoom. So now I am going to present a bit of information about feasibility for the study.

Just preliminary data. Not by any kind of outcomes but I wanted to share with you where our participants are coming from and how the telehealth piece seems to be going so far. And I have to admit the data was pulled prior to, mid February I believe, and -- sorry I am going back to the slide. So they have come from 33 states and since the slide was put together in mid February we have had a few more states. But the national MS society posted an announcement and sent out an e-mail about our study and we were flooded with people. We had about 300 calls of people interested in the study which speaks to the desire for people to have accessible pain care.

Out of the 65 participants that received treatment at the time the data was pulled in mid February, 77% had attended sessions. Only 2% were missed due to technology issues. When asked at the end of treatment if they would choose group videoconference or something else or prefer in person, 70% said choose videoconference again and 20% said they prefer in person treatment.

It is not something that everyone enjoyed. I am sure many of us would enjoy in person if it was more easily accessed. 87% are satisfied or highly satisfied with treatment. So these were the only kind of data that we looked at so far. And we will see -- I caution you, this is preliminary but we are about halfway through our sample. We are going to be rolling 240 and we have well over half of that as this point.

We are just over two years into the study so we will easily roll the full sample. I attribute that to telehealth. Ever since I started doing telehealth intervention studies, I have never not -- we have never not enrolled the number of people who wanted to enroll.

So with that, I want to turn to the RRTC employment studies specifically which is part of the RRTC employment and disability and really a partnership between my colleagues at the University of Washington and my collaborators at Shirley Ryan ability lab

It is a randomized control trial. And the aims are to evaluate the efficacy of an evidence based telehealth pain self management intervention, E-TIPS and care it to usual care in adults with physical disabilities who are employed.

The reason we selected to do this is that chronic pain is the biggest barrier that interferes with employment in terms of missed work and ability to work and overall quality of life and satisfaction.

So we decided to use an intervention I have not talked about today that is similar to the take charge intervention. Called tips or telephone intervention for pain study.

We are going to examine it not only in terms of pain but also secondary outcomes. Evaluate treatment adherence and barriers to the testing.

We are going to enroll 200 people with chronic pain and a range of disabilities including TBI and spinal cord injury and limb loss and MS.

Primary outcome is pain interference or how much pain interference and a variety of secondary outcomes we will look at. And this one like the tips and the take charge studies is eight sessions delivered by telephone where they will learn pain self management but they will learn how to address it in the context of employment.

So they are going to learn how to take the break when you are having a pain flair up and practice relaxation. A lot of what needs to happen for many people is, a lot of the changed they need to make are self care or self accommodations where they have to remember to stand up every so often or remember do a pressure release or a variety of things to help manage the pain.

Like our other studies, this is using a therapist manual guided by the therapist and we have several they are paste in the study delivering the care and there is a participant workbook so people can follow along in paper or electronically.

So that study has just gotten under way. We enrolled our first few people. Three or four people have been enrolled at the University of Washington and we will start enrolling at Shirley Ryan in the next couple of months and the treatment is run by telephone out of the University of Washington but it is a partnership between our two sites.

Given all of the Zoom we tossed around the idea of if we should go with videoconference compared to telephone but we decided to stick to the telephone because it is more accessible and the feedback we are getting from people working with pain is that it would be easier for them to step away and have a private conversation session versus to do it by video.

So I want to conclude by talking about best practices and I want to give the caveat that many of you are probably already doing telehealth. You were probably been trained at your institutions on how to do telemedicine so I want to highlight a few things we have learned from supervising people delivering a wide variety of telehealth. Pain but also other things.

Quickly -- certainly in Washington State and I suspect at your institutions as well, we have to provide people a patient education flyer describing it. When we are on video we have to show our badge and verify our patient's identify but also our own and we need to talk to them about how to contact us or how to contact them if technology issues arise this is an example of the flyer that we use.

So when we did our training, this was prepandemic. UW medicine has training that I went through and not to minimize it I think it is important but the positive behaviors they recommended I thought, I won't go through all of them in the interest of time -- but they listed things that were really helpful. Things like, leaning into the camera, nodding your head for encouragement.

Making sure the site is secure. Making sure you are not tapping your pen and finger but a lot of things. But this is a start. One of the things I learned is being a good therapist or clinician doesn't always make you a good telehealth or medicine therapist. It takes training and practice and some just, it comes more easily for some than others. And I think one of the most important things I can recommend is the first session is key.

And use common sense. These are the things we do that contributes to the high adherence rates. We train people in the use of technology as I described. We

ask them participate in a session from a safe private place. We tell them we are going to treat it like an inperson visit and we ask that you do the same thing. We ask that you are in a private place.

That you are only focused on the session and that you come prepared with your questions and what you need to be doing. We make sure we have a plan for what to do if disconnected and we talk about the limits and challenges to privacy and how we as a collaborative clinician and participant or patient are going to manager those.

And having an emergency plan as a clinician is key and we can talk about that more later if it is of interest.

Despite setting things up well and people being well intended we see a lot of privacy challenges that require ongoing monitoring. One of our study therapists talked about how a patient had two kids, two babies she was managing in the middle of a group session and the babies were not content to sit and participate in group therapy.

So it can be challenging. Other times we have had people come in where people are bringing them a beer or things like that. For evening groups. So there can be a lot of challenges unintentionally as well.

So it is important to repeatedly discuss and trouble shoot these challenges so we see it as part of the process of telehealth.

Another thing we have encountered is this. 69% of Washington drivers use phones behind the wheel and some while participating in telehealth. Despite telling people they should not and cannot be on a phone are on the internet while they are driving -- or shouldn't be driving while doing telehealth we still find that as a problem and we have had to develop protocols where we tell people we are going to hang up until you get some place safe.

And then we will talk to you again.

We use technology to engage people. Use worksheets and show them on a screen and fill it out, there are all sorts of ways that you can help people visually learn through telehealth. This is one example that a therapist could fill out while you are talking to a participant and here is another example of what it might look like. This is cognitive therapy as part of a pain treatment.

And by the way I will make my slides available if you want to see them in more detail. I want to talk about challenges to group delivery and then we will be ready for discussion.

I think the group delivery in particular, the technology poses challenges. All of us have been in Zoom meetings where someone has noisy backgrounds or don't mute themselves, we had one important who thouteleight eW* 23(y)33( )-54(l)78( )-23(n)23(a)23(g)232

But I think it makes sense to move to video more. But I think there are always going to be the people that just it is not as easy for people. As least with current technology. Or like I said for E-

at the University of Washington were reimbursed by the state of Washington like vocational rehabilitation?

>> DR. DAWN EHDE: Labor industries is reimbursing telephone and video care. And they are doing it at the same rate as they do for in person care. Whether our division, Department of Vocational rehab is reimbursing I am less certain of. It seems to me that if it is covered, by in person, it is being covered by all payers. Is that the case in Illinois?