

TSET Better Health Podcast Transcript

Episode 25: The TSET Health Promotion Research Center

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Summary: The Health Promotion Research Center, or HPRC, is on the front lines of behavioral change technology. Join HPRC co-directors Michael Businelle and Darla Kendzor for an inside look at the Center's work and ground-breaking scientific research into mobile apps and financial incentives to quit smoking.

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[Theme music]

James Tyree: Hello and welcome to the TSET Better Health Podcast. This is your host James Tyree, a health communication consultant at TSET.

Cate Howell: And this is Cate Howell, TSET podcast producer.

Today, we're so excited to bring you the final installment of our introductory research series. We had the honor of exploring our partnerships with Stephenson Cancer Center and the Oklahoma Center for Adult Stem Cell Research in episodes 18 and 20, available on the [TSET website](#). Today, we conclude by introducing you to another important partnership in scientific research: The TSET Health Promotion Research Center.

[00:44]

J. Tyree: Absolutely right. Our two special guests, Dr. Darla Kendzor and Dr. Michael Businelle, are co-directors of the TSET Health Promotion Research Center and leading scientific investigators in their own right. First, let's hear from Dr. Businelle about what the Health Promotion Research Center is and how it works.

[01:09]

[Music: [Seasons of Change](#) by Elliot Middleton]

Dr. Michael Businelle: My name is Dr. Michael Businelle. I am the co-director of the TSET Health Promotion Research Center. The TSET Health Promotion Research Center or the HPRC as we like to call it, focuses on reducing the burden of disease in Oklahoma specifically, by addressing modifiable health risk factors, such as tobacco use, sedentary lifestyle, poor diet, and risky alcohol and other substance use through research, novel intervention development and dissemination of research findings.

We currently have about 71 employees, including 11 faculty members. The HPRC faculty are investigators on about 70 ongoing studies, which are worth about \$50 million in grant funding.

J. Tyree: So, in a nutshell, the HPRC is a scientific research facility dedicated to finding new, innovative ways to promote healthy behaviors and reduce unhealthy ones. They're on the cutting edge of testing and developing new technology and methods for smoking cessation, improving mental health, and so much more, and they approach these challenges from multiple angles.

[02:26]

Dr. Businelle: The HPRC contains four major resources that facilitate research and are led by HPRC faculty members. These resources are The Mobile Health Shared Resource, The Tobacco Treatment Research Program, The Training Program and The Tobacco Regulatory Science Clinical Laboratory.

The Mobile Health Resource enables researchers in Oklahoma to quickly create and deploy new smartphone apps that aim to improve our understanding of, and intervention upon, health problems and health disparities. The Tobacco Treatment Research Program provide state of the art tobacco cessation treatments to Oklahomans and offers Oklahomans opportunities to participate in cutting edge smoking cessation clinical trials. For example, we're currently recruiting participants for smoking cessation trials that offer financial incentives for quitting and test innovative smartphone apps for smoking cessation. Importantly, anyone who participates on our smoking cessation studies receive compensation for completing study questionnaires. Our training program is training the next generation of researchers and health promotion in smoking cessation research.

[03:41]

J. Tyree: In addition to co-directing the Center, Dr. Businelle conducts a lot of research himself. Some of the most promising research centers on financial incentives to help people quit smoking – in other words, paying people to quit.

Dr. Businelle: I'm currently a lead investigator on four ongoing smoking cessation studies. One study focuses on addressing smoking cessation in low-income adults in Oklahoma. One focuses on smoking cessation for African Americans who also have anxiety. Another study focuses on smoking cessation with adults who have a history of depression and or anxiety. And a final study attempts to increase motivation for quitting for smokers that are not ready to quit. All of these studies are testing novel smartphone applications for smoking cessation.

[04:33]

These apps also include on demand treatment content, like how to cope when someone's smoking nearby, information about smoking cessation medications and how

to handle depression and anxiety during a quit attempt. Further, in some studies, participants can use the app to order additional free nicotine replacement medications.

J. Tyree: That is pretty impressive! But the scope of Dr. Businelle's research expands even more, as he explains.

[05:03]

[Music: [Innovative Technologies](#) by Pavel Yudin]

Dr. Businelle: I have a new study that recently started, that focuses on helping Oklahomans that have recently experienced an uptick in stress, anxiety, sadness, or depression. The pandemic has been tough for all of us. So we designed a new smartphone app to address these issues. The name of the app is EASE, or Easing Anxiety Sensitivity for Everyone. The app prompts two check-ins per day to assess the participant's mood and stress levels and provides helpful information in real time. Participants can also access on demand content focused on relaxation exercises, videos on ways to handle stressors and negative mood, coping with loss and grief and ways to combat unhelpful thinking.

J. Tyree: Help with tobacco cessation and physical and mental health struggles should be readily accessible to anyone. The work that Dr. Businelle, Dr. Kendzor, and all the dedicated staff and faculty at HPRC are doing are paving the way for life-changing breakthroughs.

[06:20]

[[Olympic Morning](#) by Knovic Recordings]

C. Howell: Dr. Darla Kendzor, fellow scientific investigator and HPRC co-director alongside Dr. Businelle, has her own vested interest in the work she does at HPRC.

Dr. Darla Kendzor: My name is Darla Kendzor and I am the co-director of the TSET Health Promotion Research Center.

C. Howell: From working as a tobacco cessation researcher in Chicago to getting her PhD at Louisiana State University to working as a postdoctoral fellow at MD Anderson, Dr. Kendzor has studied tobacco use inside and out all over the country.

Dr. Kendzor: I did my fellowship at the MD Anderson Cancer Center in Houston, Texas, and there, I started to work on tobacco cessation intervention research that focused specifically on vulnerable populations. And I began to realize just how huge this disparity really was, that you could offer people who were really financially strained a standard treatment that works on average for other people, works really well, and see that no one was quitting. And this is really shocking to me. And there are so many reasons for it, and it's really a complicated problem.

[07:36]

C. Howell: So it is. One of the most persistent questions for researchers is why is it more difficult to quit smoking among lower income populations? There's no easy solution, but it's important to keep trying, because the consequences can be dire.

Dr. Kendzor: At a basic level, I think we want to help people live healthfully. We want to avoid diseases like cancer and cardiovascular diseases that can be preventable in many cases. But at another level we also see really large disparities in the rates of cancer incidents and mortality in Oklahoma, and really nationally and everywhere.

These are the reasons why we need to focus on these more vulnerable populations that are experiencing these disparities because in the long run if you don't quit smoking, then you're really facing a much higher likelihood of developing cancer or cardiovascular disease.

[08:35]

C. Howell: So how do we reach people in the most effective ways? Dr. Businelle shared insights from his studies, and as Dr. Kendzor explains, the basis for these approaches is well-documented as effective, especially offering financial incentives.

Dr. Kendzor: There was a meta analysis published in 2019, a Cochrane Review, showing that in general incentive-based interventions work really well. They have high impact and the effect is sustained over time. I think the question that I am trying to answer more is how do we get this out into the world?

C. Howell: And that's where the new technology at the Health Promotion Research Center comes in. Using smartphones and financial incentives to encourage healthy behaviors are the most direct and impactful ways to reach people where they are, and the investigators at HPRC are perfecting the process. Dr. Kendzor, like Dr. Businelle, is also a lead investigator on the front lines of this research.

[09:37]

Dr. Kendzor: Mobile apps are increasingly a way to reach people because most people, almost everybody now has a cell phone, and then most people have a smartphone. So we can reach people even when they are not nearby, or even when they're busy, you know, taking care of their kids or doing other things in their daily life, we can reach them in those moments and we don't need them to go through the inconvenience of coming to see us for our counseling session or, for doctor's appointment. Whatever it is, we can reach them wherever they are.

We have a really unique resource at the TSET Health Promotion Research Center, and that is the Insight mobile health platform. What this platform allows us to do is instead of having to design or develop a new app every time we want to have something new or to address a new health behavior, or to address something in a different way, this platform is configurable.

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We can input a formula into the Insight platform if we want a particular message to be delivered to participants only under certain conditions. So if you imagine a person reporting high levels of craving in response to a question that they got on the app, we can actually, in that moment, deliver some advice about how they might cope with that craving right at that moment, right when they need it. So we can have those kinds of algorithms and formulas in there as many as we want.

So we are just trying to find unique ways to get to these people and to make it really motivating for them to try to quit smoking.

[11:12]

[Music: [A Clean Slate](#) by Sarah Chapman]

C. Howell: There's so much more fascinating work happening at the HPRC. This is the testing ground where researchers can explore what works, reassess what doesn't, and pave the way for future scientists to improve on these methods and continue to advance.

Dr. Kendzor: TSET funding allows us to recruit really the most talented researchers from across the country to help us achieve our mission of reducing the burden of disease in Oklahoma. So since 2020, we have recruited seven amazing faculty members from places like Harvard, the University of North Carolina, Duke University. It allows us to be really competitive. We can offer competitive resources and salaries and workspace and opportunities here.

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Also, the TSET support allows us to conduct pilot research, which is absolutely necessary to provide the preliminary data that we need to support really compelling applications for NIH funding to do these full scale trials. So our investigators have been extremely successful at competing for NIH funding because they have such great pilot data, which is often funded through TSET support, through our center.

I think it's just really important that we try to get people all of the support that they need to quit smoking because quitting smoking is difficult, and when you don't have the resources or the effective treatments that are available to most people, if you don't have those treatments, then it's going to be very difficult to quit smoking. So I think the more that we can do to make people aware of the Oklahoma Tobacco Helpline or the Tobacco Treatment Research Program, where people can get free resources to help them quit smoking, I think that's really important. And the work that we do is really trying to extend these evidence-based treatments to the people who need it the most.

[13:11]

J. Tyree: The state-of-the-art research development at HPRC is already making tremendous impact on study participants. TSET is proud to help fund this research as public health, technology, and behavior change merge for the betterment of all Oklahomans. To learn more about the Health Promotion Research Center, please visit their website at healthpromotionresearch.org.

C. Howell: And if you'd like to learn about TSET's other initiatives and partnerships in scientific research, you can visit our website at tset.ok.gov, or take a listen to our previous podcast episodes on the subject at tset.ok.gov/podcast. Follow us on Facebook and Twitter @OklahomaTSET to stay up to date and never miss an episode.

J. Tyree: We'd like to extend a sincere thank you to our guests, Dr. Michael Businelle and Dr. Darla Kendzor, and to you, our listeners, for spending some time with us today. Until next time, this is James Tyree –

C. Howell: And Cate Howell –

J. Tyree: Wishing you peace –

C. Howell: – and Better Health.

[Theme music]

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