>> Speaker: Think about what we said earlier. People thought loneliness and depression were the same thing. Loneliness was an aspect of depression, if you will. What we are now seeing in more current research is that there is a difference. Loneliness, overtime, can lead into depression.

If you start to look at how these things look, they're separable. Loneliness increases the risk of depression. As we start to look at this, we see both of them can experience helplessness and pain.

If that person would just show up, everything would be perfect in my life!

You see we have some cognitive things to do. Mostly, when we deal with a crisis, we start out with behavioral stabilization.

What about loneliness, depression, and substance use disorder? What we've found in our trauma survivors, is if they were depressed for longer than five years, 40% of them . . .

Looking at depression, say you have a person who has chronic depression. This depression has been consistent for five to six years. If you start to look at that, what they found is in the trauma survivors, if they were treated for depression for over five years, there was a 40% chance they were abused as children. The length of the depression, and looking at things like trauma . . . also, incorporating substance use disorder, we know isolation and depression can lead
to self mediation.

If it works, you keep using it, and you use more of it. Self medication can serve as a substitute for interpersonal relationships. It causes more depression.

There was a piece of research that came out that said if you had an alcoholic sitting in a bar, and they had 20 shots of Bourbon in front of them, after each shot, they were measured for depression. What they found was the more they drank, the more depressed they became. Instead of alleviating depression, it enhanced the depression.

Take that for what it's worth. I think when we start to look at it, it just gets worse. With addiction, you lose things like jobs, family, and close friends. Or, you don't want to be around them anymore, because they remind you of your own problems. When we start to see those types of things, and you don't hang with your significant other or your friends, or you lost your job, this leads to a deeper isolation. It's a deeper form of loneliness.

If we looked at this further, we know that from the aces study that severe life stress increases the risk of addiction. Looking at this, if you looked at the aces, that's a comprehensive piece of work, I mentioned another Swedish study with children who lost parents, through divorce, cancer, or whatever . . . observed domestic violence for twice the risk of substance use disorder in their life. No matter what studies you are looking at, you will see an increased risk when we look at early life stress.

Let's think a little more here, if we can, about these particular substance use, depression, and loneliness. We know that opioids are very popular these days. Supply and demand. If you are a trauma survivor, and you are feeling depressed and lonely, say you start to use drugs. Let's use opioids. I think the most sought after of all the substances would be opioids to treat early life developmental trauma symptoms. I'm not talking about going in and treating the disorder, and trying to do exposure types of strategies. Really, what we are looking at here is . . . say this person starts using opioids, and
they really like them. There's a lot of reasons for this person to like them. The first thing is it relieves stress. A lot of this is the action on the receptors of the amygdala. The amygdala is all about high intensity, positive and negative emotions. When we start to look at the opioid connection, here, the amygdala, as we know, also has not only new receptors for the opioids, but also gamma receptors for things like valium, and Xanex. When we look at this action, on the receptors of the amygdala, it can really reduce the stress. It can calm the amygdala down.

One thing we know when we deal with opioids is we have an internal opioid system that involves things like endorphins. When endorphins are released, they have a tendency to make you feel warm, cared for, loved, and fed. If you didn't get these things, or you had them in limited supply early on, this feels good! Warm, fed, cared for, for someone who wasn't.

The other thing that's interesting is opioids cause disassociation. When we look at disassociation in our trauma survivors, a lot of that is created by the release of endorphins. When we look at this, the endorphin release is very positive. We start to look at the disassociation. What this does is it doesn't allow us to experience negative feelings. We disassociate from them.

With opioids, you remain cognitively intact. You don't have a lot of those receptors in the cortex. Most of them are lower in the brain. The brainstem, up into the mid brain, and the lymphic system. You can litigate, or practice medicine, under the influence of opioids.

On top of that, you get a dopamine high, and a sense of well being. Your prefrontal is always receiving messages from the reward center of the brain. These are dopamine messages. A strong dopamine message from the reward center, to the prefrontal cortex, is a statement that your well being is enhanced. You are feeling good, you are doing fine. If we don't get that strong signal, we look at it in different ways. A person's sense of well being, and loneliness, can be enhanced.

These are things to think about with opioids. What can they do for
this patient? We know they lead to all sorts of problems, stemming from addiction.

If you look at this, loneliness seems equivalent to smoking fifteen cigarettes. It's more adverse to your health than obesity.

We look at millennials and the Z generation. They are more lonely than other generations in our history. There's not much difference between men and women, or among racial demographics.

Let's look at loneliness and depression. What's the difference between loneliness and depression? We made that statement early on. We want to distinguish that they are separable. Not all lonely people are depressed, and vise versa. There are a lot of commonalities, and cross over.

We can have two different types of loneliness. It can be transit, coming and going. It tends to be reactive. When you get into a certain situation, it triggers the loneliness. It can be situational, and reactive. As we look at this, we are much more concerned with the permanent type of loneliness. That's the type of loneliness that can lead to depression.

If we were to look at all of this, and talk about how could we differentially diagnose a patient, who we are trying to figure out if it's loneliness or depression? What we will do is a differential diagnosis process.

We need to realize that these things can be co-occurrent. We see loneliness bleeding into depression.

Look at the literature. There are four suggested target areas. These are your minimal areas to look at. It gets you started with differential diagnosis. Diagnosis is not an event, it's a process. You don't go in and ask them about this and that, and do it once. Diagnosis is an ongoing process. We need to ask these questions several different types. You will get different answers, especially as trust between you and your patients develop into a nice, therapeutic relationships.
Let's look at those four target areas, and see what we can make of that.

The first area is the area of patient dissatisfaction. If you are lonely, your satisfaction is directed towards interpersonal distress, between you and another person, or persons. A depressed person has more global concerns. The sky is falling! The world is coming apart! They're more concerned with things on a global nature. A lonely person is pinpointing it to an individual. If they would just show up, it could make all the difference in the world!

If we are looking at this, a second way is duration issues. The longer the loneliness, the greater the likelihood that depression is part of the clinical picture. The longer the duration of the loneliness, the negative aspects, the feelings of worthlessness, the sadness, and etcetera . . . it creates a greater likelihood that depression will be part of the picture. The second part is duration issues. Duration of loneliness, the negative symptoms. The longer they last, the greater the chance of a diagnosis of depression is.

If we look at the third thing . . . we want to look at the type and degree of guilt a person is experience. Loneliness, people who are lonely, generally don't feel a lot of guilt. Some of them will. Guilt is more typical of depression. When we start to look at this, we are looking at things a little differently, from the loneliness side versus the depression side. We will sum this up later.

The last of the four, vegetative symptomatology. That adds the type and degree of guilt, if we'd think about depression. Finally, the vegetative symptomatology is more descriptive of depression than loneliness. You may see it with loneliness. I imagine you would have a lot of depression symptomatology going on at that time.

Looking at it, these are things to look at, diagnostically, to help us determine what we are dealing with. Are we dealing with loneliness, or depression? Are we dealing with the co-occurrence of them?

If you look at depression, I think we all know that depression can lead to despair. It can lead to semantic types of problems. If you look at
loneliness and depression, we know in depression, this can manifest itself in the body. A lot of GI problems, for example. When you get to clinical depression, the signs and symptoms are more ominous. You can see the symptoms here. [On screen.]

When we start to see these sorts of things, we would lean closely towards depression, and maybe more serious depression.

If we look at these relationships, to sum it up . . . look at loneliness. Hoping that all would be perfect, if they could have that one relationship, if that one person would show up. Loneliness increases the risk of depression. We know that loneliness, the presence of others can reduce it. The subjective perception of ones environment is either friendly or hostile. We also said the brain has a negative balance, if you will. I once heard it said that if you do something not very nice to your spouse, it takes five good things to equal it out. I don't know how true that is. I think it speaks to the negative bias of the brain.

If you have someone who is lonely, especially if they had a rough early background, you have to understand how some of their self tone can be negative. It could actually set them up to fail. When we look at this, with depression, the physical symptoms are unexplained mood swings, irritability, severe disturbances . . .

The most important process is the diagnostic process. My background is medical research and pharmacology. I was a physician assistant.

If you can't diagnose the problem, you will shotgun it with solutions. I felt that people needed to know how to diagnose alcoholism, or other substance use disorders. I go out and try to market these things. No one listens!

If you don't have diagnostic skills, you aren't always treating the right thing. Pay attention to diagnosis. Remember it's an ongoing issue. It's not an over and done with event.

We start to ask questions. When we look at loneliness, we've talked
about loneliness and substance use disorder, and depression. We've looked at this a number of ways. What I want to talk about is other confounding factors. Some people are phobic, and others are counterphobic. I'm counterphobic.

If something scares you, and you are phobic, you avoid it. If you are counterphobic, you have a need to conquer it, and control it. The thought of public speaking in school scared me to death! I couldn't sleep. Now, I make a living doing it. I enjoy it. Being counterphobic, it makes me need to control these things. When we look at this, we can say that some people are phobic, some people are counterphobic. If you are phobic, it may contribute more to your loneliness. You tend to avoid a lot of things. When we start to look at this, 1/3 of Americans are introverts. We tune into our inner world. If we don't tune into ourselves enough, but when we do, we can accomplish things.

What's difficult is in our society, it's the extrovert ideal. United States ideals are to be happy and sociable. The extrovert stuff kills that bill. If we look at this a little further, Carl Jung, when talking about psychological types, he looked at introversion and extraversion as the central blocks of personality.

Introverts go inside of themselves. Introverts go inside of themselves for healing. An extrovert will go outside of themselves. Introverts focus on the meaning of the event. Extroverts just go in deeper. Introverts charge their batteries by being alone, while extroverts need socialization. There's quite a difference.

They just work differently. A lot of it is simulation. Introverts don't deal with an intense simulation very well. Extroverts love the rush. They love making rash decisions. Introverts do one task at a time. They are immune to fame and fortune. Very interesting.

If we look at this, we can also say there's a relationship with social anxiety disorder. Anxiety can lead to avoidance. When we look at this, people who have social anxiety are at a greater risk to loneliness. Social anxiety can create loneliness. I think that looking at this, we certainly have social anxiety. That can be a difficult thing
we have here.

I'm giving you a link, if you want, to a quiz. You can take it. It shows if you are socially anxious.

Social media makes you feel like you have a lot of friends. But, loneliness keeps escalating. As we think of this, social anxiety is one of the things that can fit into this. There's other things that would be part of the differential diagnosis, like dependent personality disorder, and avoidance personality disorder. That can be part of your diagnosis process.

Let's look at enriched environment, and how it can be healthy to someone who is lonely.

This is something that we are seeing related research to. Being part of a group can dramatically reduce your rate of dying. Being part of a group, actively involved, can enhance dopamine receptors in the reward center. By doing this, it enhances ones self esteem. When we start to look at this, groups seem to be important. Individual relationships, although a significant other is, aren't as important. Again, groups are very good.

What happens when we get this enriched environment? We get a wonderful surge of neuroplasticity. The cortex becomes thicker. If you want to clinically add to this, novelty and physical exercise. Do different things. Physical exercise, maybe different types of groups, arts and therapy, maybe other stuff. A lot of different things. Novelty is very important. Novelty causes a lot of BDNF. So does physical exercise. BDNF is a neurotrophic factor. It facilitates neurogenesis. That's what we are trying to do. We want this brain to grow. This is true when the brain hasn't been developed with the physical body. They are candidates for habilitation, instead of rehabilitation.

We see synaptic connections. They become denser. It happens in the dendrite area of the hippocampus. If you look at this picture, between 3:00-6:00, on the right side, you will see a long purple thing. That's your hippocampus. That's your memory. The dendrite intake gyrus is above the blue irregular piece. This can contribute to
learning, and to a lot of different things.

When we start to look at this, in many ways, the problems we have in life, the diseases and disorders, tend to do more with distress. Stress and inflammation. That's what will kill most of us. When you look at it, the genesis of a lot of these diseases are not life or death. It's how we look at these events. I think that the patient perception is something we need to work with. How are they looking at this? Do they see this as something that can or cannot be treated? Do they see this as a chronic disease, or something that can be changed?

If we go further, let's add hope and expectation. If we get a patient who expects to get better, what it does is it works through an area in your brain called the rostral anterior cingulate cortex. It boosts hope. It creates more positive feelings in the amygdala. As we look at this, we can see that this anterior cingulate cortex . . . this slide is difficult.

Think about this. Good events, this part of the cingulate cortex and the amygdala are affected. We get positive emotions. If we look further at hope and expectation, this has a key piece of how you look at the world. If you have the right world view, you will do well, because you expect to do better. Your mind is so powerful that it's over nature and nurture. We see research that shows us the power of the mind. If you don't think you will get better, you probably won't. If you do, it will help.

One to one therapies don't seem to work well. They are no greater than group therapies. We have about four types of interventions that we can talk about, and look at. These are basically the types of interventions that are used, and reported in research. We have some data.

The first of the psychotherapeutic options is to increase opportunities for social interactions. A large number of contacts does not equate to high quality relationships. The way that this lonely individual thinkings, their unconscious hypervigilance. They are constantly looking for social threats. This can lead them to withdraw from others, and can exaggerate the loneliness. Negative self talk can come into play.
If we look at the second thing, the second opportunity, enhancing social support through mentoring programs. Buddy care is a big program. This is all about giving support, and mutual aid to a person who is lonely. It's not only getting support, but giving support back, and mutual aid.

The third component of this, is focusing on social skills. Speaking on the phone. Giving and receiving compliments. Enhancing nonverbal communication. The verbal part of communication is only about 5-10%. Most of it is nonverbal.

I think that when you look at it, if you look at lonely people, most adults have minimal social skills. Research tells us they use these skills when they feel low, rather than high levels of loneliness. When they are really feeling high levels of loneliness, they don't tend to use the social skills.

Also, the fact that they have minimal, probably adequate social skills. I go back to the world view. It sets them up to fail.

Looking at the fourth item, those that are designed to address maladaptive social cognition. If we look at all four types of intervention, designed to address maladaptive social cognition, the use of cognitive behavioral therapy has the largest effect size. This has been shown to be the most viable. The only problem is it can be expensive, and long term, to try to get through all of this.

Sometimes, it's felt that to augment it a bit with pharmacy treatment may be the way to go. It's not for everyone, but it can help.

There are other options. For example, the use of self regulation techniques. What we are trying to do with self regulation techniques is to reduce physiological and emotional arousal. You can use a lot of these. These are portable types of interventions. I have a piece that has fifteen interventions in it. One of them is a welcoming prayer. If you are feeling angry because of something that's going on around you, mostly when we feel angry, we displace it, or stuff it. When we look at the anger here, in this technique called welcoming prayer,
what you do is you invite it in. You say "come on in, anger. Be with me." Let it sit there for a second.

If you start to think about that, sixty seconds, all of the neurotransmitters will have been metabolized, or put away. You will find you don't feel angry anymore. You feel settled. There are a lot of techniques that can be helpful.

We can use cognitive therapy. I think first, we will probably go heavy with the behavior therapy. Try to keep them out of tough situations. Teach them adaptive situations, as they start to stabilize. Maybe cognitive therapy, looking at information processing, and increasing problem solving abilities. We have many options. Realty therapy can work fairly well in this situation.

I think we are familiar with William Glasser's work. His work was with anxiety and depression symptoms. It's more in the present. You aren't dealing with the past. You are dealing with the present. It helps define and access the basic values within the current situation. Evaluate the person's present behavior, and future plans, in relation to the value. We want to do this in the present. We will deal with behavior and feelings. Focus on responsible behavior in this situation.

You want to assist the patient to accept the present, other than dwelling in the past. Look at it in terms of what the future has in store. Patients undergoing reality therapy are helped to cope with present demands, and anticipate future needs.

A little more about reality therapy. One of the things that I like is it helps the client get crystal clear about what they want in their life. It focuses on things they can do. For example, the serenity prayer. It helps people take control of improving, and learning to make better choices in their life.

Genetics. We are wired to satisfy the basic human needs. I think when we start to look at those things, we have the wiring there. I think sometimes, we have to get out of our own way.
Glasser talked about love and a sense of belonging being influential. He talked about caring habits. Supporting, trusting, encouraging. He juxtaposed them to their opposites, the deadly habits. Glasser's work fits into this anxiety and depression. A sense of longing. I think it may be something, if you want to learn more about it, that may be helpful.

If you look at these considerations, I think that with CBT, what it can allow you to do is look at the automatic thoughts, and try to evaluate them. Look at them as faulty hypothesis that need to be verified, rather than fact. We go on a mission to try to understand what's going on. We want to go about it in a research oriented way.

To get people to work on things in the future is very important. Affirmations.

As we continue, in our attention and expectations, behavioral confrontation, people who are lonely place value on negative social interactions. I think we've talked about this in terms of what this can have in terms of escalating loneliness, and other problems.

Let's look at something you may want to try. Pet therapy. Pet therapy is something that may be very helpful to some people who feel lonely. With an animal, I have rescue dogs. I love them, they love me. There's something there that I can't feel lonely when I'm around the dogs. I just feel loved. It's a wonderful thing. You don't have to do anything. Just be with them.

It's been shown medically that it can reduce blood pressure, and decrease your cholesterol levels. It does nice things. Consider this. I want to introduce you to a pet therapist. A darn good one.

This is one of our rescue dogs, Moose. He's a positive psychologist. You can see his happy ball. [On screen.] He does a good job. He keeps me going. Pets around can be wonderful, especially if you are lonely, and by yourself. Pets are wonderful company.

You can have a heart to heart, brain to brain. You are always communicating.
Let's look at another issue. This involves exercise. We are looking at a body of things that can be helpful. Psychotherapy, reality therapy, pet therapy, and etcetera.

What I want to talk to you about is we don't exercise much as a country. That's shown in our metrics. I think that if you can increase your physical activity, you will increase BDNF, and neurogenesis. What's been shown is the number of steps you take in a day can dramatically impact your longevity.

I'm going to show you a graph. It's going to be a bit difficult to see. I will explain it to you. We are looking at physical activity. The number of steps a day. Versus, mortality rates.

Let me get this graph set up. Let me explain. There are three graphs. The first graph, if you look at it, what we are looking at is the comparison of men and women. If you look at the Y graph, you see zero, five, ten, fifteen, and twenty. That's the mortality rate of 100 adults per year. If you look at men, mortality in the 26 range, look at the steps. 10,000. When you see that man get to 10,000, mortality rate is under 5%. Women are pretty much the same. They have a lower mortality rate to start with.

Look at the middle graph. Look at it by age. What you have on your Y graph, that's age. We have the same thing we are looking at. Mortality per 100 adults per year. On the X axis, steps per year. As a 65 year old, or older, which is my category, if you look at mortality, up around 80, the mortality is high. If you start to look at the steps, if I can walk about 10,000 steps a day, I reduce my mortality down incredibly! When you start to look at that . . .

Let's look at the third graph. This is by ethnicity. Same Y axis, mortality by 100. X axis is the number of steps. You look at this, a high number of mortality rate per year. If you look at the steps, it takes them down to about five at 10,000. The white population, same thing. Mexican, American. The only real difference is where they start.
For example, African American populations, look what they can derive by physical activity! It's amazing to me. It made me happy. I have my fitness watch, and my steps for the day. I count them all.

I think it's something to think about.

Let's look at other variables. We talked about exercise. Walking and great exercise. It enhances your good cholesterol. It curbs bad cholesterol. A study from Harvard showed that 2-3 hours a week of walking can reduce the incidence of uterine and breast cancer. Physical exercise can be a wonderful adjunct to what we are talking about.

The other thing is a natural environment. There is more and more research of the difference between living with a forest around you, or a lot of greenery, and living with asphalt around you, with little naturalness. Some of the investigations were looking to find out if the alterations in autonomic arousal would kick it into a default mode network.

Have you ever gone home the same way every day, and not remember arriving home? Since you've done it every day, the prefrontal cortex doesn't feel it has to be alert. It turns it over to a lower center of the brain. It's unconsciously checking things out for you. If something dangerous would occur, it would kick your prefrontal into the game quickly. That default mode is more entertaining. You think about who you will go out with. You think about what you will have for dinner. It's more fun than doing the same old thing, paying attention to the same old road.

What they were looking for was to see if there was a difference between sounds from artificial and natural environments. What happened was they didn't find that the DMN activity increased. They found differences in functional connectivity. That means that the front and anterior are coupled, well connected. When we start to look at this, with the naturalistic environment, but not the artificial environment, what they saw was an increase in parasympathetic activity.
This is your poly-vegetal [sp?] theory.

If you look at a natural environment, there's an increase in active engagement. When you look at a natural environment, it can be very helpful. By getting you into a parasympathetic mode, that's rest, relaxation, building up your storage. If we have good parasympathetic tone, and lower sympathetic tone, that will be better. Trauma survivors have a higher sympathetic tone.

As we look at these things, I want to talk to you about positive affirmations, just for a few minutes. If you look at positive affirmations, they are wonderful. We have a person who's lonely, who probably has some very negative self talk patterns. However you are feeling and thinking, you will produce the neurotransmitters that make you feel the way you are thinking. Affirmations interrupt those neuro networks. If you are having negative thoughts, you will put out neurotransmitters that create what you are thinking and feeling. When we start to look at this, it gets amazing.

Look at this graph. It's not pretty. Look on the left side. "Nerve cells firing together." Look at the left. It's starting to fire with the nerve. See the black arrows. The bottom one has been connecting to the dendrites connecting to this first neuron that we talked about on the left.

Now that we are starting to implement the positive affirmations, what we are seeing is those connections are shifting away from that weaker memory, and moving towards this new configuration, to strengthen it. This is a Donald Hebb quote. "Neurons that fire together, wire together." As we continue to do these things, self affirmations, we can see different changes in the body.

Remember this. If you are feeling it in the brain, your brain is going through it. If you are feeling upset and angry, or emotional pain, the area in your brain that registers pain will light up. Your brain can't tell the difference between the two. As we look at these things, positive affirmations can do a lot for us.

Our brain is good at learning from bad experiences, but bad at
learning from good experiences. That's negative bias.

I think if you look at what we are trying to do, you reinforce it so the affirmations become stronger than the old negative self talk patterns. They start growing dendrites from other cells to reinforce and strengthen the new connection.

In terms of looking at all of this, I will close with this. This 2006 Purdue university study found that 20% of Americans can't name a single person they feel close with. Every single one of us is hardwired for relationships.

Looking at this, and look at relationships, we've drawn through a menu of items. We've looked at ways we can help this individual. I think right now, we are in our infancy, in terms of really looking at loneliness. I think it's something we will be forced to deal with. It's becoming a great problem.

I would ask you please to keep an open mind. Consider loneliness, when you are looking at a differential diagnosis with your patients who are depressed.

Thank you. It's an honor to be able to present to you, and talk with you today. Thank you Samson for your support, and the response for all their help. Thank you very much. I will turn this over to Samson.

>> Speaker: Thank you. Everyone, you will see towards the end of the slide, CC has a list of references and ...

It's important to remain informed. We are quickly realizing how technology can connect, support, and enhance our recovers. I will turn this over to Mark.

Mark Cole is the chief operating officer of Sober Peer. Mark?

>> Thank you Samson and CC. This is a great example of continuing education.

Let me share with you about Sober Peer. We are excited to introduce
it to you. The current environment is having a devastating impact on substance disorders. There are many relapses. Traditional approaches are inadequate to meet this need. Human connections are essential.

Sober Peer is a mobile platform that gives care via smartphones. It uses artificial intelligence to lead to lasting patient recoveries.

This is behavioral science made mobile. Here's what that means. The input we get from clients happens in a brief visit. This approach isn't a good way for a client to get comfortable. We were responding to a crisis, and not preventing one. You can flip the process, and make your treatment continuous, and you can reach the 99% of people who won't seek treatment.

By changing how and where we collect information, we make what we collect more objective, resulting in better outcomes.

We invite you to explore how this will make you a better practitioner, using your skills with a new set of tools.

This is likeuber. A platform that connects riders and drivers. This is a digital health platform with a person seeking substance help to people to help them recover.

We have artificial intelligence, and the smartphone. Collectively, they have changed how we collect data. The app makes it easy for you to engage with clients. We provide care, and collect 500 behavioral signals for the client. They can report their mood, making comments, chatting with their counselor or peers, creating a telehealth session, and other similar activities. These "sober signals" are sent 24/7 to a database supported by our artificial intelligence program.

You will see a personalized dashboard for each client.

Today, we are inviting you to join the Sober Peer revelation. Look for the link in the chat box, or the follow up mail, to show you how to get started. We will help you stay connected, reach people, and earn more in your practice. You will have deeper insights into your clients,
manage more clients easily, get paid and grow your practice, create your own virtual community small group to give people a way to belong, a notification when someone goes to a trigger location, be involved in a chat session that will be stored in a secure environment, and help people recover through ongoing digital care.

Thank you for what you do to change lives. We look forward to helping you go mobile. Thank you.

>> Samson: Thank you Mark. Lastly, we will have a thank you email going out to you. Within that thank you letter, is some links and additional resources from Sober Peer. You can click the handouts tab from the control panel.

Now, I will take a few minutes for a live Q&A. CC, can you hear me?

>> CC: Yes.

>> Thank you. You have a lot of wonderful compliments! A few people are saying they are about to go outside and increase their steps, because of your information!

>> Get yourself a watch that counts them for you.

>> Hopefully they will do it with their pet, too!

Our first question comes from Elizabeth from New Jersey. She's asking if you can speak more to the physical health conditions related to loneliness. She asked about diabetes, sleep disorders, and anything that are physical health conditions that are associated with chronic loneliness.

>> I think they answered their own question. I think they hit a home run. All of these things. When we think of the physical and psychosomatic, or the connection between brain and gut, I think that when you look at more of your somatic types of complaints, you see that more with depression. You see it with loneliness. I think a lot of GI types of problems, gastrointestinal types of problems, if a person is a trauma survivor, and now in their 30s, you may see a lot of
autoimmune disorders, like fibromyalgia and rheumatoid arthritis. I think what it does in terms of cardiovascular, and things we've seen, it takes self regulation strategies, and things mentioned. We've seen less physical problems. I think you can have a whole wealth of things. There's even discussion of lowered, we talked about that, triglycerides, and lipoprotein levels. You will see, the more you get into depression, the worse physical problems will be. The wear and tear can lead to diabetes.

I think you hit it on the head.

>> Thank you so much, CC. Mark, the next question is from you. Hope you are still here. Mark, the question is from a peer recovery support specialist. They are asking if a peer recovery support specialist can build their own coaching business, and do they need to be credentialed, or is it okay to use it for their clients?

>> Absolutely. We've built this platform as a way for a counselor or coach, certified recovery specialist, for anyone to use it. It's a tool to build your practice by using the telehealth function. You need to look at what licensing is in your state, or whatever role you are in. You need to follow the state guidelines for it. You can use our platform. We are happy to help you with it.

>> Thank you. Just as a reminder, in your thank you email, you will see some contact information from Mark. You will also see it in the chat.

We will sneak in one more question. This question comes from someone from Pennsylvania. Can you explain, or give us a simpler meaning, vegetative symptomatology?

>> Let's talk about, for example, people who have schizophrenia. A lot of times, what you may see is a vegetative symptom. Think of the word "vegetable." You have a person who is not moving. It's really almost the minimal activity with that. I think what you are really looking at is in regard to that, in my mind, would be more along the lines of someone who had vegetative symptoms. They'd show little movement. Not a lot of awareness. Nontalkative. They'd sit in a
corner, in a chair. That's more of your vegetative symptoms.

>> Thank you so much, CC.

Thank you so much for the time you spent with us, connecting. You are probably wondering, how do I get access? We have an instructional guide in the handouts tab of the go to webinar platform. There's also information on this website that will give you clear instructions on how to get your CE quiz, and your online CE certificate. That is immediately available on successfully passing the quiz. You can email us if you have questions. You can visit the same website you used to register for this webinar to get access to the quiz.

There are upcoming webinars on our schedule. There are some really interesting topics, with great presenters. You can visit our COVID19 resources page, the website is on my slide. You can learn more about these six free excellent webinars that address top concerns. They are presented by leading experts in the field.

We have our clinical supervision training series on the website on the bottom of this slide. The second specialty training series on addiction treatment in military veteran culture. These have exclusive content. They have a fee to access each of the trainings.

As a NAADAC member, here are the benefits. Your CE's for this webinar, and our CE's would be free as a NAADAC member. If you want to join, you can on our website.

Please note that a short survey will pop up at the end. Take some time to share the feedback. We can continue to improve this process.

Thank you for participating. CC, thank you for your expertise. Mark and Sober Peer, thank you.

You can stay connected with us on linked in, twitter, and Facebook. Have a good day. Be well.

[End of webinar.]