

Kari Leibowitz, PhD:

We spend a lot of time trying to think about how can we change our behavior. How can I get myself to exercise more or meditate more or go on more walks? Really a lot of the research is showing that if you can change people's mindset, often that is the most effective way to motivate them. If you can change people's mindset about how pleasurable it is to go for a walk or do some exercise or meditate or whatever it is, then actually that's a really powerful tool for behavior change.

LuAnn Heinen:

That's Kari Leibowitz, a Stanford-trained PhD and expert at leveraging mindset to improve our psychological and physical health. Kari honed her expertise through world travel, including by studying compassion meditation with Tibetan monks and nuns, and serving as a U.S.-Norway Fulbright scholar at the University of Tromsø. She's used her learnings to train health care teams on mindsets to improve patient care, to design and teach the Stanford course, *Mindsets Matter: Strategies for Improving Your Health, Performance and Well-being*, and to write her forthcoming book, *How to Winter*.

I'm LuAnn Heinen, and this is the Business Group on Health podcast, conversations with experts on the most relevant health and well-being issues facing employers. We all want to be happier and healthier. Today, Kari Leibowitz and I discuss how we can combine scholarly expertise with practical know-how to achieve both.

Today's episode is sponsored by Big Health. For over a decade, Big Health has been empowering employers to help bring millions back to good mental health by providing safe and effective non-drug treatments for insomnia and anxiety.

Hi Kari, welcome to the podcast. I'm really glad you're here.

Kari Leibowitz, PhD:

Hi. Thanks for having me.

LuAnn Heinen:

I'm excited about this topic because we all want to be happier and healthier, and this is where your research on mindset comes in. Let's start out by talking about mindset and what mindset means to you. I think a lot of us are familiar with the growth versus fixed mindset, but that's not exactly where we're going today.

Kari Leibowitz, PhD:

Carol Dweck, who was a mentor of mine when I was doing my PhD at Stanford University in the psychology department, she has sort of pioneered this work on growth and fixed mindsets, but my research was in the Stanford Mind and Body Lab and there I worked with my mentor, Dr. Alia Crum. Our work is really about mindsets and how they influence our health and well-being and how they really can get under the skin to influence our physiology. I think a lot of people use the term mindset in their everyday life and that's one of the things I like about studying this. It's not a technical term, it feels relatable, but in our lab we think about them as sort of simplified core beliefs about something. They're really foundational beliefs about things in the world like stress or treatment or illness or winter, and these sort of core beliefs influence all sorts of other things like what we notice and pay attention to, what we expect to happen, and they can motivate our behavior accordingly because they are so foundational.

LuAnn Heinen:

Let's get into how mindset can influence health.

Kari Leibowitz, PhD:

Yes, I think a lot of people are aware of the mind body connection, aware of the power that our mind has to influence our body, but because the sort of medical world for so long viewed mind and body as separate, I think we still don't have a full rich and deep understanding of just how powerful our minds are and how powerful our mindsets can be. Let me start with an example of one of the studies from my mentor, Dr. Alia

Crum, who I mentioned, and she did this study looking at hotel room attendants. Now, hotel room attendants are a really interesting group because they actually get a lot of exercise in their daily jobs. If you think about it, they're on their feet all day long, pushing carts, changing bed linens, scrubbing bathtubs, and they're really active, and if you look at what they're doing over the course of a day's work, they're far and away exceeding the Surgeon General's recommendations for how much exercise adults should get.

But when Dr. Crum and her colleagues actually talked to these hotel room attendants, she found that most of them didn't see their work as good exercise. Most of them reported not getting any exercise and said that they weren't feeling like they were very physically active. They saw their work as hard, painful, difficult work, but not necessarily as good exercise. And so in this study, she took half of these hotel room attendants and she just informed them that their work was good exercise. She shared some of what I just said about how their work meets the requirements by the Surgeon General and that they should expect to see the benefits of living an active lifestyle. In effect, what she was doing is changing the mindsets of these room attendants about the meaning of their work, shifting it from just work to work as exercise.

One month later she went back and compared to the control room attendants who didn't receive this mindset intervention, those who adopted this mindset that their work was good exercise, not only liked their job more, but they also reported decreases in weight, so they lost an average of two pounds of weight, which is, you know, just four weeks later. Then they also had a drop in their blood pressure. This is a really good example, I think, of how our mindsets can get under our skin, that just by viewing their work differently, the room attendants, you know, they weren't taking on extra shifts, they didn't report having gone out and joined a gym, they didn't say that they were doing pushups in between changing bed linens, but by viewing their work differently, their health was impacted as if they were actually getting more exercise.

LuAnn Heinen:

You're saying that our beliefs about the contribution of exercise influenced the benefits we get from it.

Kari Leibowitz, PhD:

That's correct. I'll just share one more study with you about this right now, also from Dr. Crum. She wanted to test things more directly, and so in this study she brought participants into the lab and they drank two different milkshakes at two different time points. One milkshake was a light and healthy sensible milkshake, low in calories, low in fat, low in sugar. The other milkshake was a really indulgent decadent dessert milkshake, tons of fat, tons of calories, tons of sugar. What participants didn't know is they were actually drinking the same exact milkshake with the same caloric content, just with two different labels. Dr. Crum had these participants in the lab hooked up and having their blood drawn and she was measuring a gut peptide called ghrelin. Ghrelin is often thought of as the hunger hormone, so it increases when we get hungry and then when we start eating it decreases to tell us that we're full. She found that when participants thought they were consuming more calories, their bodies responded as if they had actually consumed more food, so their ghrelin increased more quickly in anticipation of consuming this decadent milkshake and then it decreased more sharply signaling that they were actually feeling fuller physiologically, just as a result of this mindset. The real takeaway I think from this is that it's not just the objective properties of whatever we're doing, the exercise we get or the foods we consume. Of course, those objective properties matter, but what also matters and what's so often overlooked is what we believe about what we're doing or eating or consuming or the exercise that we get.

LuAnn Heinen:

Okay, you're saying if we believe we're doing something healthy or we know we've been told by an expert we're doing something healthy, then our biometrics might change.

Kari Leibowitz, PhD:

Correct. Now, this doesn't mean that you can do anything you want. It doesn't mean that you can smoke a bunch of cigarettes and say that it's healthy for you and that it will be healthy for you. But it does mean that

when you're doing something that is either ambiguous or already healthy, then really focusing on the health benefits of that can actually help you reap even more rewards.

LuAnn Heinen:

Oh, that's interesting. So believing you're healthy, believing you're fit and that your activities are contributing to that is likely to get you to a better place than worrying I'm not sleeping enough, I'm too stressed, my diet's bad.

Kari Leibowitz, PhD:

Yes and I think we have these two different things. One is the objective, how much sleep we're getting or our dietary habits, and then the other is what we think and feel about that. Often we're adding so much extra stress and anxiety because we're worried about not doing everything perfectly. So the feeling of eating really nutritious, filling delicious vegetables all day long, and then having something perceived to be unhealthy like a cupcake and feeling like you actually just negated all of the good that you did because you ate that one cupcake. But you could be focusing instead on all of the delicious, nutritious foods that you ate and all of the ways that you were contributing to your health. It's the same with sleep, right? When you wake up after a bad night of sleep, you might be thinking to yourself, oh God, I'm going to be so tired today because I didn't get enough sleep. This is something I feel a lot personally all the time. Or you could be focusing on, you know, I got a couple of good hours and the hours I got were really restful and you know what my body is capable of getting me through this day with whatever amount of sleep that I got. Those beliefs have an impact.

LuAnn Heinen:

In the clinical setting where you've also worked, how does mindset impact patient outcomes, health outcomes, and the experience of care?

Kari Leibowitz, PhD:

A lot of what we know about the role of mindsets on health and health care comes from the placebo effect. Actually, just this past week I was in Germany at the International Placebo Conference, which everybody always asks me if it's a real conference. Yes, it is a real conference, not a placebo. There are all sorts of interdisciplinary researchers studying the power of placebo effects. We most often associate placebos with sugar pills or sham treatments or, you know, this sort of trickery or deception, but the truth is that when we look at these placebo effects, they're much more powerful than we realize. Placebos alone have been shown to have clinically meaningful improvements in 60-90% of all conditions. These range from things like pain, depression, anxiety, to things like Parkinson's disease and Alzheimer's and allergy and recovery from surgery.

One of the studies that I love here comes from Fabrizio Benedetti in Italy, and he used what we call an open hidden design. What this means is they have patients in the hospital after surgery who are receiving morphine for pain relief, and they're receiving this through their IV, and half the patients know when they're receiving morphine because a doctor comes around and tells them that they're getting morphine, and so they're expecting that they're going to benefit, that they're going to have pain relief. The other half of patients, they gave the exact same amount of morphine, the exact same dose, the exact same timing, but they administered the morphine through the IV without informing patients. So patients were getting this medication, but they weren't aware of it and they weren't expecting or in the mindset that they would be feeling better. What they found was that the morphine was far less effective in treating pain when people didn't know that they were getting it, when they didn't have the mindset for pain relief.

They've also looked at this for Parkinson's disease, objective tremors. They've looked at this for blood pressure medications, so actual objective blood pressure, and they find the same result that our medications are not as effective when people aren't in the mindset that they're going to benefit. This is sort of in this placebo world of how our expectations shape outcomes, that when we're expecting these kinds of benefits, that they are more likely to occur and that they're much stronger. This is just one of many ways that our mindsets impact treatments in that when we think that a treatment is going to work, we have tons of evidence from tons of different areas of medicine that those treatments are more likely to work and be more effective.

LuAnn Heinen:

This really does get to the physician-patient relationship. It reminds me, I saw a *New York Times* article that you wrote sometime ago that said, *Can a Nice Doctor Make Treatments More Effective?* That was the title. Basically, what I took away from that is that physicians who are warmer and more competent can set more powerful expectations about medical treatments, or at least perceived as competent, they have to be warm and competent. Is that right?

Kari Leibowitz, PhD:

Yes, beautiful. We think of warmth and competence, which are actually two key dimensions from social psychology. So immediately whenever we meet anybody new, we are judging them on these perceptions, right? Warmth - does this person have good intentions or bad intentions towards me? And competence - does this person have the skills and resources to enact those good and bad intentions? But this also shows up in a health care context, and we often think about this as does the provider get it in terms of medicine and do they get me as a person? When they have both of those things or when patients perceive them to have both of those things, it makes their expectations more powerful. If we think about this, it's not magic. It makes sense, right? If you go to the doctor and you have some problem and the doctor gives you a treatment and says, you know, I think this treatment is going to help you. One, if you feel like the doctor doesn't know what they're talking about, like they're not competent, why would you believe them? Or two, if you feel like they don't understand you as a person, your specific situation and condition, why would you think that they know enough to prescribe a treatment for you? It's really these two things together that can help shape the kinds of expectations that doctors are able to set and thus the impact that their treatments can have on you.

LuAnn Heinen:

Then this has a role I think as well in side effect management. That physician encouragement is sort of a corollary to that, that you should expect, you'll have this and then it will get better. You'll have that side effect and it will, with these kinds of actions, go away.

Kari Leibowitz, PhD:

That's right. The placebo effect is when people get better because they expect to get better. But the placebo effect has an evil twin that we call the nocebo effect. That's when people get worse because they expect to get worse or most often this shows up as they get side effects because they expect to have side effects. This is actually a big topic of discussion in the placebo research world because doctors are actually in a difficult position here. We know that we want to inform patients of possible side effects ethically, so patients know what to expect so they can know when to seek help. But we also know from nocebo research that even just informing patients of what side effects are possible can make these side effects more likely.

One of the things our lab and my research has looked at is, okay, how can you use mindset to square these two things? How can you use mindset to think about what are ways that we can actually inform patients about possible side effects without making them more likely? It turns out that in some, not all, but a lot of conditions, side effects are a sign that the treatment is active in the body and might even be a sign that the treatment is working. We did this in a study with the Covid vaccine. When you get a vaccine, it's very common to have minor side effects like sore muscles, sore arm, little headache, maybe feel a little feverish for a day or two. That's actually a sign that your body is having an immune response and that the vaccine is sort of working in your body to do what it's supposed to and build up immunity. We found that instilling this mindset in patients, telling patients when they can think of these side effects as a good sign that the treatment is working, actually helps to reduce worry about side effects. It made people more likely to say that they would be vaccinated for Covid-like illnesses in the future. It actually reduced the side effects that people experienced in the sort of 15-minute waiting period after they got the shot. We're always trying to figure out what are the mindsets at play here and how can we truthfully, accurately, ethically help people adopt the most useful mindsets in any given situation?

LuAnn Heinen:

I'm speaking with Kari Leibowitz, a health psychologist, researcher, speaker, and writer focused on harnessing the power of mindset. We'll be right back.

Big Health

Today's episode is brought to you by Big Health. Big Health believes that everyone deserves access to high-quality care for insomnia and anxiety. But the gold standard treatment for these conditions is cognitive behavioral therapy, which is in short supply and high demand. Big Health developed Sleepio for insomnia and Daylight for anxiety. Two cutting edge digital treatments that deliver high quality gold standard care on a virtually limitless scale. Big Health makes it simple to unlock coverage and improve access to care with a speedy implementation and seamless billing through your pharmacy invoice. Join the other employers who have helped thousands of employees improve their mental health. Visit <https://www.bighealth.com/> today to learn more.

LuAnn Heinen:

Talking about physicians who perhaps aren't gifted at the bedside manner or don't connect with their patients, does that potentially undermine the success of the program?

Kari Leibowitz, PhD:

Honestly? Yes. The thing here and what we see over and over again from the mindset research, from the placebo research, is that when we fail to capitalize on these forces, on things like warmth and competence, setting expectations, the power of mindsets, we're leaving powerful tools for healing underutilized and we are not getting the maximum benefit from the drugs and treatments that we are prescribing. Now, the good news is I think that all physicians can do this. I think physicians often aren't doing this for a number of reasons. One might be all of the systemic forces working against them, right? When you only have 15 minutes with a patient, it might feel like you don't have enough time to do everything you want to do, and you have to make priorities about what's most important. Two is I think that it might have been signaled to them both implicitly and explicitly, that these are not parts of real medicine, that real medicine is sort of the diagnosis, the prognosis and the treatment, not the connecting with patients or setting expectations. Then frankly, I think another reason is that you can't bill for this. You can't bill an insurance company for setting a patient's expectations or for helping them adopt a more useful mindset. My hope is that the system will adjust to help with some of these things. But I think that all physicians and all health care providers are able to do this because we all know how to connect with other human beings. We all know how to greet someone warmly and sometimes that's all it takes. Also, a lot of these people in health care roles have tons of experience, tons of wisdom, tons of knowledge, tons of training that they can draw on. Think about the difference between someone writing a prescription, handing it to you and saying nothing, versus someone writing a prescription and saying, you know, this has worked for a lot of other patients and in my experience, I'm hopeful that this is going to work for you. It takes just a little more time and intention, but it really helps frame things powerfully for the patient.

LuAnn Heinen:

But at the same time, there was a recent article in *JAMA Internal Medicine* about AI and whether ChatGPT could provide high quality and empathic responses to patient questions. These were 200 some questions from a social media forum and trained evaluators compared the physician's responses to the chatbot's responses. Basically, they found that the chatbot responses were better and were rated much higher for overall quality and also empathy. To your point about how limited physician's time is, how many other pressures are on them, nearly 80% of the ChatGPT answers were deemed to be more nuanced, accurate, and detailed than the answers by physicians, and less than 5% of the physician responses were considered empathetic or very empathetic, and AI did 10 times better. Now, this is a very limited setting and so on. Obviously, you're never going to replace physicians, but just your thoughts about that, that the ChatGPT was able to offer reassurance and a perception of caring in their responses to these common patient questions: I got bleach in my eye, you know, am I going to go blind? And the chatbot was very empathic.

Kari Leibowitz, PhD:

Yes, I think that part of what's happening here is we're underestimating the value of empathy, right? I think most people think of empathy in the health care encounter as a nice bonus or something you do so you get good Yelp reviews or patient satisfaction scores. But more and more the research is showing us that actually providing that kind of reassurance has a) a physiological impact, and b) is powerful medicine in and of itself. I'm hoping that the health care system will move to a place that acknowledges and allows for more of that. Now for really common questions, things like, I got bleach in my eye, there is I think a good standard response to that. Maybe AI can be helpful in answering some of these questions in a way that is empathetic for people. I think the most important thing is are patients feeling listened to, are they feeling reassured, and are they feeling like they now understand what to do in this situation. So maybe AI could be a good first line of defense before speaking to a doctor. I also see a world where we can think of AI as replacing the parts of medicine that are not human. At least right now, AI cannot do a physical exam. AI cannot hold your hand and tell you that they're going to stand by your side and take good care of you or a loved one through a cancer diagnosis. But maybe what AI could do is take very good clinic notes so that the provider doesn't have to take clinic notes and so that the patient has good clinic notes. Maybe AI can be doing the interface with the electronic medical record and the record keeping and insurance billing systems to free up more time from the health care team to actually connect with the patient on a human level. I think there's a lot of potential here, but we have to use it to replace the inhuman parts of medicine, not the human parts of medicine.

LuAnn Heinen:

Yes, absolutely, and back to human medicine, what was the research that you worked on with Abraham Verghese?

Kari Leibowitz, PhD:

He was part of a group at Stanford that focuses on presence in the clinical encounter. I learned so much. I was going to their group meetings regularly in my early years of graduate school. He and his group really inspired a lot of the work that I ended up doing with Dr. Crum, where we developed a mindset training program for health care teams that we ended up giving to all of Stanford primary care, as well as other clinics in the San Francisco Bay area, that was really meant to help health care teams, not just physicians, but actually the entire clinic staff, physicians assistants, medical assistants, nurse practitioners, the front desk staff, to recognize and shape patient mindsets as part of their clinical practice, because we know how powerful that is and we know what a difference it makes. Part of it was through our conversations with Dr. Verghese and some of his team at the Presence Group, realizing that a lot of people, even in medicine, even the great warm, empathetic doctors, really weren't aware of the power of mindset or how to use it. Actually, he and Dr. Crum and I wrote a paper together for the *BMJ Open* that was sort of a call to action for how mindsets can matter in health care and trying to make the argument that we need more attention into how we can shape and leverage these things as part of routine clinical practice.

LuAnn Heinen:

So true or false, the psychological and physiological effects of anything are influenced by our mindset.

Kari Leibowitz, PhD:

True, a hundred percent.

LuAnn Heinen:

When you designed the course, Mindsets Matter at Stanford, you were working at the Mind and Body Lab, was that an undergraduate class and what was the crux of that course?

Kari Leibowitz, PhD:

This was actually a Stanford continuing studies class. Stanford has an amazing program where anyone, and actually this was during the pandemic so it was on Zoom and I know now they have classes on Zoom and in person, but anyone can take these classes from people at Stanford. It was really fun because when you're teaching people from the community who have signed up for your class just for fun, they're there not for a

grade or for a degree. They're there to learn and to apply learnings to their own life. I designed this class to be really maximally impactful and all of the homework and exercises and discussions were really geared towards helping people apply mindset science in their own life. So we talked about mindsets in a number of domains, you know, mindsets about intelligence, stress, diet and exercise, the health care encounter, my work on mindsets about winter, and also sort of how mindsets matter more broadly, what we would call mindset theory of some of these mechanisms of how mindsets can have such a big impact. I still am in touch with a bunch of my students. It was really a blast.

LuAnn Heinen:

That sounds wonderful. I wish I'd taken it during the pandemic. I'd love to ask you about tools we can use to cultivate mindsets that make us feel happier, healthier, and as you said on your website, more like our best selves. One of those might be, I'm thinking meditation because we know, again, from your wonderful website you've met the Dalai Lama, if anyone projects a joyful, positive, blissful state of mind, it's him. Is meditation a tool we can use to cultivate mindset?

Kari Leibowitz, PhD:

Absolutely. I actually got into mind body science through meditation. In my undergraduate at Emory University, I spent four summers on the Tibetan Mind/Body Sciences program, first as a student and then as the program coordinator. I was living in India at a monastery with monks learning and teaching American students about meditation. That's where I really started to understand and recognize the power of our subjective inner world and experience to influence our health and well-being. We always say that the first step to really using mindset in your everyday life is just noticing that you have mindsets and noticing when you're in a particular mindset. To me, meditation is really this tool for coming to understand and know your own mind and your own internal experience. Ideally, what mindfulness can teach us to do through meditation practice or other mindfulness practices that people might do, like walking meditation or yoga or other kinds of sort of mindfulness practices, is it teaches us to notice our thoughts as they arise, rather than having a thought and getting swept up in that thought. Let me take the example of some of my work on mindsets about winter. I have some research on winter being dreadful or winter being wonderful, and say you have the mindset that winter is dreadful and it's cold and it's rainy and it's nasty outside, and you're thinking to yourself that you have to go outside, and all of a sudden your thoughts are, I don't want to go outside. I'm going to be so uncomfortable. I'm going to be so miserable. Oh my God, I just hate the winter. Like, oh, I'm so depressed. It's so dark, it's so gloomy. Mindfulness and meditation can help us pause, sort of snap and notice that moment and say, wait a minute, these are my thoughts carrying me away, but that's just a mindset that I'm in, and I have the power to change this mindset to say, actually, I'm going to go outside. I'm going to dress appropriately. I'm going to notice what's beautiful about the darkness, about the winter light. I'm going to listen to the sound of the rain falling on the trees. I'm going to feel the cold air on my face waking me up. I'm going to breathe in that fresh winter smell. All of those things are only possible as a shift because you have noticed when you're caught up in that particular mindset. So I think meditation, training ourselves to notice our thoughts, to notice the mindset we're in over and over again, can make that first step a little bit easier, a little bit more frictionless, and help it come more naturally to us to notice when we're in an unhelpful or maladaptive mindset.

LuAnn Heinen:

Yes. Then compassion meditation is a variation on that that you've mentioned as well.

Kari Leibowitz, PhD:

Yes, I think compassion meditation is really powerful. In the meditation world I was raised in, which is run out of a center at Emory, and they have a program called Cognitively Based Compassion Training. From the sort of Tibetan Buddhist tradition, traditionally speaking, compassion is the end goal. The goal is not just to stop at mindfulness and awareness, but the goal is really to cultivate compassion for yourself and others. I think that is such a powerful way of moving through the world, right? It helps you from everything from, I didn't get everything done on my list that I wanted to today, or I snapped at my kids, or I wasn't my best self in that meeting, can help you have compassion for yourself, but also when you're out in the world and you know that

grumpy guy yells at you on the train or the cashier is rude to you or you have some other unpleasant interaction that can kind of mess up your day and leave you in a little bit of a funk, but really understanding and thinking about that being a reflection of something difficult another person is going through. I also think in our sort of current world where there is sort of so much suffering and we're also confronted with this suffering, because we have a 24-hour news cycle because we have this little rectangle in our pocket that can connect us to all the bad stuff happening all around the world at any given time, I think compassion can really be an antidote to that. This idea of sending goodwill out to the world, this idea of cultivating the intention to be kinder and more compassionate and more understanding to the people that you meet and the people that you will never meet can sort of provide some fortitude against the hopelessness that I think we can sink into in these times.

LuAnn Heinen:

Yes, thank you for that. I have a favorite meditation app that goes there for sure. It's sort of combining compassion and purpose along with all of the techniques that you referenced, noticing what's happening in the moment, letting the thoughts go.

Kari Leibowitz, PhD:

Are you a regular meditator? Are you doing compassion practices frequently?

LuAnn Heinen:

Semi-regular and I tend to do it when I'm, this is really bad and I shouldn't admit this, when I'm trying to fall asleep is when I put it on.

Kari Leibowitz, PhD:

No, that's good. Actually, I asked my meditation teacher, Geshe Lobsang Tenzin Negi at Emory if it was bad to use mindfulness techniques to fall asleep, and he said, absolutely not, so there you go.

LuAnn Heinen:

Oh, I love that, that made my day, in my little guilty secret.

Kari Leibowitz, PhD:

Oh, I'm so glad. Not guilty. Not guilty at all.

LuAnn Heinen:

Your forthcoming book is *Wintertime Mindset*. You've given us a little bit of a preview. Tell us what the inspiration was and findings that surprised you, and why you're not back in Norway.

Kari Leibowitz, PhD:

Yes, so before I joined the Stanford Mind and Body Lab, before I started graduate school, I was really interested and still am interested in this sort of idea of human flourishing, right? Not just what goes wrong with people psychologically, but what goes right. How can we help people thrive and live a meaningful life. I stumbled upon a researcher named Joar Vitterso, who is a world expert in human happiness. Dr. Vitterso studies life satisfaction, he studies positive emotions, he studies personal growth, so sort of not just things feeling pleasurable all the time, but when do we actually find meaning and grow to live a sort of rich and deeply fulfilling life. I was really interested in his research and personally I was sort of looking for a bit of an adventure and he lived in Norway. I wrote to him and I asked him if he would be interested in collaborating on a study with me if I was able to get this Fulbright grant that I was applying for.

He very casually mentioned to me that his university, the University of Tromsø, is the northern most university in the world. I sort of started doing a little bit more research and I realized that they are so far north that in the winter the sun doesn't rise for two months, so it sets on November 21st and it doesn't rise again until January 21st. It sounds extreme and a little crazy, and I was like, wait a minute, how is it that this world expert on human happiness lives in this place where the sun doesn't rise for two months? Like that is bananas.

So I was like, oh, you know, they must really struggle with seasonal depression there. They must be super depressed in the winter. I sort of suggested a study where we looked at seasonal depression in Tromsø and Dr. Vitterso wrote back to me and he sort of like, oh yeah, like we could do that. But actually, like a lot of the research shows that we don't really have problems with seasonal depression here, it's not that big of a deal. I was born and raised at the Jersey Shore where, you know, summer reigns supreme. I was like, well that's fascinating. Like what is allowing these people, you know, 200 miles north of the Arctic Circle to not be depressed during this long, dark cold winter? That sort of inspired the research that I ended up getting the Fulbright grant and moving there to do, which was sort of trying to understand how people there thrived during the winter. As I was working on this study, I was talking to people in Tromsø, and they sort of kept saying things to me like, well, why would we be depressed? The winter is wonderful. There's so much to do, there's so much to look forward to. It's such a magical special time of year. I sort of realized I had been asking the wrong question by focusing on why people weren't depressed. Then eventually, you know, we decided to look at mindsets about winter because there wasn't really another psychological framework out there in the research to understand people who might enjoy winter. We found that people in northern Norway, we looked at three latitudes in Norway, we found that as you went farther north, people had more positive mindsets about the winter and that having these positive wintertime mindsets was associated with a bunch of the measures of well-being that we looked at, including things like life satisfaction, positive emotions, and psychological growth.

LuAnn Heinen:

I'm interested in what people did that affected their winter mindset and especially is it something that was passed on or contagious in the community and how much variability did you experience?

Kari Leibowitz, PhD:

Yes, great questions. I'm speaking with relatively broad strokes, so of course it's not going to apply to everyone in Norway, but I noticed several things that were different in the culture in Tromsø than I had experienced in winters growing up, that I thought made a big difference. One was that I think, at least in some places in the U.S., certainly where I grew up at the Jersey Shore, we tend to view winter as really limiting. We think about all the things that we want to do that we can't do in the winter and in Tromsø they really see it as a time full of opportunity, opportunity both to do things outdoors, of course, you know, they're very lucky to live somewhere very beautiful and snowy and they love to ski, they love to be out in the winter, but even in all weather they're very good at sort of dressing up and getting outside and seeing that as an opportunity.

Even when they're inside, they don't see it as a time to be stuck inside, but really as an opportunity for coziness as a quieter time of year, as a more restful and contemplative time of year, so a time of year for connecting with yourself, more meditation, sleeping more, which is seen as a healthy seasonal adaptation and not something that's necessarily a sign of depression or a problem. You know, lighting candles, being by the fire, reading books, all of these things that we do in the winter, but I think they really do with this eye towards indulgence and enjoyment and really seeing it as an opportunity to lean into those things during that time of year. I think it really makes the season feel more expansive. Then I do think this getting outside is really important, that they get outside in all weather. There's a Norwegian saying, there's no such thing as bad weather, only bad clothing, and so really dressing appropriately and going outside at least a little bit every day, I think really helps people feel good, feel invigorated, and feel connected to nature, and also feel like they're not limited by winter because they still can do things outdoors.

LuAnn Heinen:

With headlamps in December.

Kari Leibowitz, PhD:

With headlamps, definitely headlamps are huge. Reflective vests, all the kids wear little reflective vests to school.

LuAnn Heinen:

What can your learnings about winter mindset teach us about mindset generally in other domains?

Kari Leibowitz, PhD:

I love winter mindset because I think it is a good opportunity to practice seeing how your mindsets matter in a way that is somewhat more accessible, right? There's also research in my lab led by Sean Zion with Alia Crum on mindsets about cancer during cancer treatment and showing that mindsets can impact and improve the course of cancer treatment. They've done a fantastic job with that work. But it can also be really intimidating to think about what are the most challenging areas of your life and try changing your mindset in those domains. What I like about winter mindset is I think it's a little bit friendlier, a little bit more accessible of just try thinking about winter a little bit differently, try looking for the opportunities, try noticing how your mindset is making winter better or worse for you, and seeing if you can nudge that mindset in a little bit more of a winter positive direction. Then I think people start to do that and feel how much better it feels. I have lots of examples from my students who I was teaching at Stanford in California, yes, but I have students from all over the country and all over the world in that class who would try these exercises of going outside for a winter walk with a more positive wintertime mindset. I cannot tell you how many students in that class, how many readers and other people from my workshops have come to me and said, I did not want to do that, I did not want to go out on that winter walk. Everything in me was screaming that it was going to be miserable. Then I went outside and yeah, I was pretty uncomfortable for a few minutes, and then after a little while, something kind of magical happened and I was really enjoying myself and I noticed all the beauty of winter and I felt vital and invigorated and strong and yeah, I really saw that I could do it. So having that kind of positive feedback loop in the psychological science world, we call this a wise intervention where if you plant this little seed that targets the right psychological belief, the right piece of meaning making that actually it can be self-reinforcing, that people go out and experience these things and then they think, yeah, actually you know what, winter is full of opportunity and that makes them more likely to go out again next time. Then you can see how that one little seed can completely change their experience of winter. That I think is really practice for doing this in lots of other domains of life that might feel really challenging, like losing a job or having an illness or struggling with parenting or going through these other difficult times of life that we're all going to face at some point or another. Seeing how our mindset can help make these things more manageable and even find the opportunities in them, I think is really powerful, and I think trying it with winter mindset gives people a little taste of that and I think often leaves them hungry for more.

LuAnn Heinen:

I feel like it's almost back to where we started, because what you're describing, the wise intervention sounds like adopting a growth mindset to change and grow and do more.

Kari Leibowitz, PhD:

Yes, and that's a classic example of a growth mindset. I think we spend a lot of time trying to think about how can we change our behavior? How can I get myself to exercise more or meditate more or go on more walks? Really a lot of the research is showing that if you can change people's mindset often that is the most effective way to motivate them. If you can change people's mindset about how pleasurable it is to go for a walk or do some exercise or meditate or whatever it is, then actually that's a really powerful tool for behavior change.

LuAnn Heinen:

Kari, thank you so much for this conversation. I really enjoyed it and I learned a lot.

Kari Leibowitz, PhD:

LuAnn, thank you for inviting me. This was so much fun. It was a delight.

LuAnn Heinen:

I've been speaking with Kari Leibowitz, who holds a PhD in social psychology from Stanford University where she worked in the Mind and Body Lab. Her goal is to connect people with their mindsets, recognizing we can change our mindsets and thereby improve our lives, families, and communities. Kari's new book coming soon

is *How to Winter: Harnessing Your Mindset to Embrace All Seasons of Life*. Her website is <https://www.karileibowitz.com/>.

I'm LuAnn Heinen, and this podcast is produced by Business Group on Health, with Connected Social Media. If you liked the conversation, please rate us and leave a review.