A Conversation with Dr. Dean Ornish

Speakers:

Dr. Dean Ornish, President and Founder, Preventive Medicine Research Institute

Interviewer:

David Kirkpatrick, Chief Techonomist

(Transcription by RA Fisher Ink)

David Kirkpatrick: So, this is really great to have you at the end of the day, Dean, and I think that there were a number of elements in the preceding session that are pertinent—

Dean Ornish: Or impertinent.

Kirkpatrick: Impertinent but pertinent to what you have to say because in you’re thinking so interestingly about health. You run the Preventive Medicine Research Institute at UCSF. You’re a professor of medicine there. You’ve been researching for many years about how lifestyle changes can really affect a wide range of health outcomes and you’ve written all these books which I’ll just name a few of. The most recent one The Spectrum, Love and Survival, Eat More, Weigh Less, Dr. Dean Ornish’s Program for Reversing Heart Disease. All of those bestsellers you were on various White House commissions for various Presidents. You’ve turned Steve Jobs into a vegan. I mean, you’ve done a lot of amazing things.

Ornish: But I did not kill Steve Jobs.

Kirkpatrick: You’re not being blamed for that. So, anyway, I’m very eager to hear your thoughts about this whole question of how do we make people healthier? I know you’ve been giving a lot of thought even in some new ways that have to do with the media environment we’re in. So have I started off by saying enough to give you a chance to start talking?

Ornish: Sure. First, thanks for including me today. It’s a great conference. I’ve been doing this work for 40 years. It’s my passion. We helped create a new field called lifestyle medicine which is using lifestyle changes not only prevent disease but actually to treat and even reverse it. So in a series of randomized trials and demonstration projects we’re able to show for the first time that simple lifestyle changes: eat well, whole foods/plant-based diet, various exercise, including walking, stress-management techniques, including yoga and meditation, and maybe most important, we’ll talk more about this, love and support. Or, eat well, move more, stress less, love more, can actually reverse the progression of most of the diseases we look at, and the more underlying biological mechanisms we study, the more reasons we have to show why these simple changes are so powerful, and how quickly people can get better.
So we began with heart disease which showed that could be reversed, even severe heart disease, diabetes, early-stage prostate cancer, by extension breast cancer, high cholesterol, high blood pressure, obesity. When you change your lifestyle, it changes your genes, turns on the good genes, turns off the bad genes, particularly downregulating what are called the oncogenes that promote prostate, breast, and colon cancer. It’s just amazing how quickly you can show improvement. We did study and published it with Craig Venter in the Proceedings of the National Academy of Sciences.

We did a study with Elizabeth Blackburn who got the Nobel Prize for discovering telomerase, the role of telomeres, the ends of our chromosomes that regulate how long we live. She found that as you get older, your telomeres get shorter. As your telomeres get shorter, your life gets shorter, and the risk of premature death from pretty much everything goes up proportionate to that. We still have the only controlled study showing that any intervention, in this case, these same lifestyle changes, can actually lengthen telomeres.

With all of this talk about personalized diets and personalized lifestyle interventions and precision medicine, I think that’s great if you’re talking about targeting a special new immunotherapy for pancreatic cancer type, cell type, but for most of these chronic diseases, it’s wasn’t like one there was one set of diet and lifestyle recommendations for reversing heart disease, a different one for diabetes or prostate or whatever. It was the same for all of them and the more you change, the more you improve at any age. I think in part because a lot of these chronic conditions share underlying disease pathways like chronic inflammation, oxidative stress, and so on, and they manifest in different ways. So, the longer I do this work, the simpler it becomes.

Kirkpatrick: Well, that’s a great thing in some ways. It certainly makes things simple.

Ornish: Steve Jobs used to always say he was more proud of what he left out of the iPhone than what he put into it. When you really understand something, when you make it your life you can really—I mean, people don’t know anything about it can make it simple and people who spend their whole lives doing it can make it simple.

Kirkpatrick: Well, the good thing is that we kind of know what we should do.

Ornish: And there is a real convergence of agreement about that.

Kirkpatrick: But the weird thing is we don’t do what we should do.

Ornish: Not always.

Kirkpatrick: Well, the majority of us, 75% of Americans are obese or something like that, just to name one statistic. I know one of the reasons you wanted to speak at this conference was because you’ve been giving a lot of thought to the media environment and the kind of digitized landscape in which we live and the phone addiction that we are all prey to, almost literally
everyone, and how it dovetails with what you’ve learned so talk a little bit about how you’re thinking about that.

Ornish: Well, if information were enough for people to change then nobody would smoke. It’s not like I’d say, “Hey, David, smoking is bad for you,” and you go, “Oh, I didn’t know that. I’ll quit today.” Everybody knows that. It’s on every package of cigarettes. It’s not enough to give people information. It’s not enough just to focus on their behavior.

We have to work at a deeper level. Really the essence of all of my work in a sentence is to treat the cause. If you say, “Why do people smoke?” or, for that matter, overeat, as you indicated or drink too much, or take opioids, or work too hard, or spend too much time playing video games, or whatever it happens to be.

I’ve asked the people in our studies, “Teach me something. Why do you do these things? They seem so maladaptive to me,” and they kind of say, “You don’t get it. You don’t have a clue,” they’d say. “These are very adaptive. They help us deal with our pain, our loneliness, our depression.”

There’s been a radical shift in our culture in the past 50 years with the breakdown of the social networks that used to give people a sense of connection and community, and what I’m learning is that anything that brings us together is healing. Even the word “healing” comes from the root “to make whole.” Yoga from the Sanskrit to yoke, to unite, to bring together. These are really old ideas that we’re rediscovering. Fifty years ago people had extended families they saw regularly for the most part. They had a neighborhood with two or three generations of people that grew up together. They had a church or synagogue they went to regularly. They had a job that felt secure that they’d been at for 10 years or more.

Many people now don’t have any of those things and we pay a price for that. I wrote a book about this in 1998 called “Love and Survival” that reviewed what hundreds were then and now literally thousands of studies that show that people who are lonely and depressed are three to ten times more likely to get sick and die prematurely than those who have a sense of love and connection and community.

I don’t know anything in medicine that has that powerful an impact. They say things like, “I’ve got 20 friends and this pack of cigarettes and they are always there for me. Are you going to take away my 20 friends? What are you going to give me?” Or they say, “Food fills that void” or a well-known food writer said, “Fat coats my nerves and numbs the pain,” or alcohol or opioids or alcohol numbs the pain or other drugs numb the pain or video games numb the pain, or, as many of us have found, working all the time numbs the pain.

We have lots of ways of dealing with our pain but if you just try to numb or bypass literally or figuratively the pain, you’re just killing the messenger. It’s like clipping the wires to a fire alarm and going back to sleep while your house burns. You know you’ve just killed the messenger.
Our approach is to help people use the experience of their suffering as a doorway for transforming their lives in ways that go beyond just risk factor reduction.

Fear is not a good motivator. In the short run, fear is a great motivator. People do anything for a month or so after they’ve had a heart attack, but in politics as we’re finding now or in health, it’s not sustainable. Fear is not a sustainable motivator but joy and pleasure are and because these underlying biological mechanisms are so dynamic, when you make big enough changes in diet and lifestyle most people feel so much better so quickly, and the love and support they get is so important, that it reframes the reason for making these changes from fear of dying, which is not sustainable, to joy and pleasure and freedom and feeling good, which are.

Kirkpatrick: Let me just immediately mention the word Facebook because this is the connective tissue of the planet more or less now. This one company’s business product. It was invented, specifically, to connect you to the people you already know in the real world. That was the design feature at its core from the beginning, around which is still more or less rotates even though most people don’t really use it the way it was designed to be used and they collect friends or whatever and it’s becoming a media platform but it is a deliberate connective tissue that emerged from the technology sector, so that’s got to be an intrinsically positive given the landscape you’re describing. It is not?

Ornish: Well, it can be but not necessarily, though. I gave great admiration and respect for Mark Zuckerberg and what he’s accomplished is phenomenal, and I especially like his recent mammoth 6,000-word manifesto that he talks about these different aspects.

Kirkpatrick: Of community.

Ornish: Yes, but Facebook can also be a way for making people feel really depressed because most people don’t put on their Facebook profile that they have a kid on heroin or they failed at this or did that or wake up in the middle of the night with terror or they don’t know who to ask for help.

Kirkpatrick: I don’t know why. Why don’t they?

Ornish: It’s like your bio-sketch. You don’t talk about all the times I wanted to kill myself when I was in college or whatever because we want this image of who we are that we think is going to be a little more lovable. People do feel lonely and they want to connectedness, like I’ve got to look like I’ve got it all together so that people love and respect me.

The problem is when you do that, however it turns out, you lose. If you don’t get the love and respect, you lose and even if you do it’s not something you can really enjoy because, it’s like if they really knew this other part of me, maybe they wouldn’t be there.

When you grew up in a family 50 years ago or a neighborhood with two or three generations of people, they really know you. They don’t just know your Facebook profile or your bio-sketch,
they know where you messed up, they know your dark side, and you know that they know
because you grew up together and they know that you know and there’s just something
profoundly primal and healing about being seen in that way, like in “Avatar,” I see you. That’s
actually from an African proverb, just to be seen. In our support groups and our work, Medicare
is actually covering our program.

We are creating a new paradigm of health care instead of sick care around the country. We’re
training hospitals and clinics and physician groups. We’re working with a company called Share
Care and we’re really trying to create this new paradigm of lifestyle medicine. And as part of
doing that, it’s not just the diet. Medicare will pay for 72 hours and most insurance companies
will now, too, of training, we divide it into 18 four-hour sessions so people come for four hours at
a time which is a lot. An hour of exercise, an hour of yoga and meditation—who would have
thought that Medicare would be paying for meditation and yoga—an hour of a group meal with a
lecture.

To me the most important part is what we call the support group, and it’s not really a support
group, it’s an intentional community. The rule of it is what goes in the group, stays in the group
so you can be open and authentic which is what people really crave.

The real epidemic again is depression and loneliness, and if you have nowhere safe enough to
let down your emotional defenses, those same walls that protect you also isolate you because
they’re always up. It’s not like you should have defenses but if you have nowhere you can let
them down then you start to feel really isolated and the paradox that we think the very thing we
do to protect us is the very thing that’s threatening our survival because it’s creating this sense
of loneliness. In the groups somebody might say, “Oh, I may look like the perfect dad but, again,
my kid’s on heroin,” and instead of someone else going, “Oh, why don’t you send them to a drug
rehab program?” like they hadn’t thought of that, or give them glib advice to say, “What am I
feeling? And let me express that to you as a feeling.”

It’s so easy to make fun of that, especially here in New York, about how it sounds so California,
touchy-feely and I used to get defensive, and then I thought one day, “It is touchy-feely, that’s
what makes it work so well. We’re touchy-feely creatures, we’re creatures of community.”
Someone else might say, “What am I feeling? That feels really bad. I’m so sorry to hear that,”
or, “Gosh, my kid has a different problem,” or, “Gosh, I used to have a drug problem,” or
whatever it is, you’re suddenly connected in a way.

It doesn’t change the fact that the kid is still on heroin but it changes everything about how you
react to that and how you relate to that. Those support groups are so meaningful that, literally,
decades later after our programs ends, people are still meeting together, even if they didn’t even
like each other that much when they first started just because that need for connection is so
primal. It’s as powerful as the need for air, water, and food and, in some ways, even more so.

Kirkpatrick: So the kind of uber question of the day is can tech play a role in taking us to a
better place with health? So, given that it’s clearly contributed to some of the negative you
describe, what’s your feeling about whether tech and network communication can help scale this extremely labor-intensive kind of thing you’re describing?

Ornish: I don’t know if this is the Uber or the Lyft question of the day.

Kirkpatrick: Okay, Lyft.

[LAUGHTER]

Kirkpatrick: I’d rather say Lyft at the moment, we all would prefer Lyft at the moment anyway.

Ornish: Well, technology, as you know, is just a form of power. I studied for decades with this ecumenical teacher named Swami Satchidananda who said, “It’s like electricity. Plug in your fingers it’s bad, plug in a lamp it’s good. It’s how you use it.”

I think it our program, after they finish their 72 hours, they continue to meet virtually using Zoom as a way of connecting with each other. They’ve already bonded in person and sometimes it’s actually easier because they can just go Thursday at five o’clock from their living room, they just dial in and they can be with all these people.

Zoom is a video conferencing technology. There’s lots of them out there. You could use Facetime, Skype, or whatever. What I would love Facebook to do, and it was missing in Mark Zuckerberg’s manifesto, as brilliant as it was, is to say how can we create authentic safe groups where people can really get beyond their Facebook profile, can really say, “This is who I am.”

Jamie Haywood with Patients Like Me has to some extent bringing people together among a common chronic disease and at least they can compare notes around different kinds of therapies and so on, but this goes a step beyond that. How can we create communities on Facebook or anywhere that uses that same model of maybe they are private communities within Facebook where people are committed to that process of just being open and authentic with each other in a nonjudgmental way. It’s so powerful, it’s so simple and, yet, that’s where I think the technology could be the most healing.

Kirkpatrick: Well, it’s intriguing that you say that and it was really somewhat coincidental we had you and Arianna on the same program here but it is quite parallel to what she was describing with Kristin Lemkau from JPMorgan Chase that in this big faceless, macho corporation they’re trying to build similar vulnerable—it’s not quite as far as you’re talking about—but the idea that love and connection is critical to our function.

Ornish: —survival and function.

Kirkpatrick: Right, and they’re acknowledging that inside this 245,000-person corporation so maybe there’s some sign of open-mindedness to this and Arianna specifically said she thinks we’re kind of on a tipping point in society on this and it would be nice to think. Obviously, the Facebook part is of great interest to me but there was a wonderful essay about Zuckerberg’s letter written by Yuval Harari, who wrote Sapiens and Homo Deus, which was in The Financial
Times about a month-and-a-half, two months ago, he agreed with everything in Zuckerberg’s letter but the problem was that everything Facebook does is virtual and to genuinely create community for people like us who are flesh and blood, animals who really do respond to one another in the physical world, Facebook would somehow have to be getting people off the virtual into the physical as part of its product. Is that connected to what you think?

Ornish: I don’t really agree with that. I think physical is best, obviously, and, especially if people have bonded physically in person, it’s easier to do it with technology after that. Studies have shown that just having—like they did one study with Sheldon Cohen, I don’t know how he got people to volunteer for this, where they dripped cold virus, rhinovirus into people’s noses, and everybody got infected with cold virus but not everybody got sick. Those who had four or more phone calls a day from a loved one had four times fewer developing signs and symptoms of a cold, even though 100% were infected, not everybody got sick.

It doesn’t take a lot, a phone call. What’s key is not the means of how it’s done but what’s behind it. The real epidemic is not only loneliness and depression, which are the most toxic emotions, and chronic anger, which is the other toxic emotion, but the dearth of meaning and purpose. This goes all the way back to Viktor Frankl’s Man’s Search for Meaning book or Rachel Remen’s beautiful book, Kitchen Table Wisdom, where people who have a sense of meaning—like in Nazi Germany, in the most dire of circumstances in concentration camps, you could have two people in the same bunker, one survived and one didn’t and it wasn’t necessarily the one that was the physically healthiest that did, it was the one that had the greatest sense of, “I’ve got to survive,” this sense of meaning, “so that I can,” whatever bear witness, be reunited with my loved ones.

I always ask people who come to see me, “Why do you want to live longer?” Now, people aren’t used to being asked that. There’s kind of an assumption, particularly the people in Silicon Valley want to live forever, but I can tell you having been suicidally depressed in college, coming that close to actually doing myself in, which was my doorway into this whole area of my life. Telling someone who’s lonely and depressed that they are going to live long is not that motivating because they are just trying to get through the day. Seriously, they’re just saying, “Hey, I don’t know if I want to live longer.” Telling someone they’re going to live to 86 instead of 85 isn’t that motivating even when they’re 85, you know, because we have to come back to, “Why do I want to live longer?” People often say things like, “I want to watch my kids grow up or dance at their wedding or write a book,” or whatever it happens to be but if you can get them in touch with what brings a sense of meaning and purpose, which is increasingly hard to do in a large corporation like you were talking about with Arianna.

Just the fact that an employer cares enough about you to give you those kinds of tools can create a sense of meaning. All the studies show that absenteeism and presentism and healthcare costs and all those improve when something as simple as paying attention to someone and saying, “Tell me, what matters to you? What’s important in your life?”
Kirkpatrick: Tell me though, what specifically, what you’d like to see Zuckerberg do with Facebook to bring about some of this—

Ornish: We have seven minutes. Take a deep breath.

Kirkpatrick: Yeah, really. The world we live in, we need something different happening. What does Zuckerberg do? Then we can hear from audience people.

Ornish: First of all, I appreciate the question. It’s our feelings that connect us, as I mentioned before—and it’s easy to make fun of. Let me give you an example. Can I just do a quick exercise? It takes 30 seconds.

Kirkpatrick: Please.

Ornish: If you feel comfortable, close your eyes for a moment and tell me how you feel when I say the following, “I think you’re a jerk and I think you’re wrong.” Now open your eyes. Feel good?

Kirkpatrick: [LAUGHTER]

Ornish: Did it make you want to get to know me better. Probably not, right? Now, this is just an exercise but normally when I say something like that, people generally feel attacked. When you feel attack you want to attack back: “No, I’m not a jerk, you’re a jerk.” Or you want to withdraw. Either you stop listening or you leave the room. But if intimacy is healing, it takes us in the opposite direction.

Now close your eyes again and tell me how this feels, “I feel angry and I feel upset.” Open your eyes. Same or different? Different, right? Most people say, “Gosh, it brings me in. I want to know why you feel that way.” Now, it’s not about making nice, it’s not about the power of positive thinking. It’s about this is a “negative emotion” quote/unquote, “I’m angry, I’m upset,” and, yet, it bring you closer to me. Therefore, it’s healing.

The difference is one’s a thought and one’s a feeling, and it’s our feelings that connect us, so what I’d like Mark Zuckerberg to do is to give people skills and create Facebook virtual communities and perhaps real ones where people can meet online, and we find that 15 people is an ideal number. It’s enough that it’s diverse but it’s not too much where people don’t get time to talk and just give them some basic skills on how to create a group that’s healing, a healing group. And it’s real simple. Focus on your feelings, express them as a feeling, and learn to listen empathically.

Kirkpatrick: Now that could happen bottom up by the users themselves as a movement, right with Facebook as the platform?

Ornish: But if Mark were to do that, then the kind of criticism he’s getting could be mitigated tremendously because helping people guide them into doing this, it could be done from the bottom up but these are skills we don’t really learn much about in our culture.
Kirkpatrick: Yes.

Ornish: And to the degree that he can provide them, people become your most loyal customers, your most loyal users when they feel like this unmet need—I mean, business is all about meeting unmet needs, and when the unmet need is so primal and you can help somebody meet that need, they become your most loyal customers, they become your most loyal users.

Kirkpatrick: The reason Facebook is of interest to you in part is because just of its sheer scale. There’s no other way to, in your view, to attack this problem at scale.

Ornish: Well, that and the fact that as you say, it was set up for that purpose. In some ways it has succeeded and in some ways it has actually made people feel more lonely because they feel like they’re never going to measure up to this person’s perfect vacation or perfect family but it’s an incredible power that has never been used in the most healing way and it would be so simple to do and I’d love to see that.

Kirkpatrick: Okay, who has a comment or a question?

Audience 1: [off mike]—and the sense of community, it’s actually what the whole organization and company was derived for.

Ornish: Well, let me put it this way. This need is so primal that even if you just meet it a little bit, you can create a certain amount of community. When people have meet-up groups they’re usually around some topic, the intention is not to create intimacy and love in that way, and I do think that if you come to that with that intention it’s amazing.

When they have these retreats, when they have these support groups, the part that people have the most apprehension about, and yet, it’s the most meaningful, and in the first group, and certainly within the first two groups, they’re often sharing things with each other that even their own spouses may not know. There’s such a need for that, we just need to provide that in a much more overt and targeted way, not just kind of as a side benefit of whatever they’re meeting up about.

Kirkpatrick: Okay, first, Lynn, then Ester, and then you.

Lynn: I’m just going to mention an initiative that we’re still looking for funding that’s going to be kind of a combination of the JED Foundation and potentially doing it on Facebook. We’re going to use Watson to identify words that kids use that are angry words and that are more bullying and then that feed that back to them on their own Facebook page to model better behavior. I think some of these things can be done.

It’s still in the experimental idea phase and we’re looking for an additional funder to do it but I think that that is the kind of thing we want to do as JED Foundation to really open the kids’ eyes to the words their using that are doing exactly what you’re saying.
Ornish: I love that. There was a study done with millions of Twitter feeds and they found that when you use the words that evoke anger and chronic hostility, that was what was linked with a whole variety health conditions. Awareness is always the first step in healing. To the degree that you can help raise that awareness, that itself is healing.

Audience 2: Just really briefly. If I invited a MeetUp, “Gee, come hang out with some other lonely people,” you’re not likely to come.

Ornish: Not lonely people but if the intention is to create a sense of intimacy, a greater intimacy, it doesn’t mean that you’re lonely or stigmatized in that way. Also, frankly, if I went to Medicare and I want to teach people how to love better and let down their emotional defenses so that they can quiet down their mind and body to experience inner peace and joy than they’d say, “You’re out of here!” It took 16 years. We finally got it because we had all the PET scans, angiograms, radionuclide ventriculograms and all this stuff, even then it took 16 years with support of Bill Clinton and Newt Gingrich but, ultimately, it’s a conspiracy of love, it’s a Trojan Horse.

People want to come in and unclog their arteries or lower their blood pressure or get off their meds or whatever it happens to be but in the process what they rediscover is, “I’m not concerned if my arteries are more open because I’m more open.” It really becomes the catalyst for transforming their lives whereas a regular trained doctor, I’m really trained to just kill or numb or bypass the pain, as opposed to helping them use that as a doorway for transforming their lives.

Audience 2: All I’m saying is the best way to get people to come to MeetUp is not—it is a little bit of a Trojan Horse or a bait and switch to say, “Come to play chess.”

Ornish: Yes, I agree with that.

Kirkpatrick: Well, I’m sure today in MeetUp groups today that are designed to play chess, there’s a lot of this going on because people friends. That’s what happens, right?

Ornish: I agree. The work you’re doing is great and the communities see you, and I’m sure you’re seeing, the same thing, but I do think there’s a place for overtly stating, “This is what we’re doing here,” and that’s what Facebook could be doing.

Kirkpatrick: Well, that’s interesting. Okay, please.

Audience 3: Can you hear me?

Ornish: Sure.

Audience 3: On the topic of nutrition, in my opinion, that is sometimes that is a luxury of the upper economic class. For example, processed food is a lot more affordable and a lot more filling than fresh produce or organic, and, also, in some ways, access to fitness—there’s a cost there, right? What are your thoughts on reducing that barrier and is there a way that technology can help to do that?
Ornish: Well, there’s some truth to that but it’s not really true. Overall it’s not true. Here’s the thing, we trained this in the setting of a homeless shelter in San Francisco, over thirty thousand homeless people have been through our program. It’s not just for affluent and educated people. Second, this is really a third world diet.

I worked with McDonalds back in 1999, people thought I’d gone to the heart of darkness, to put salads on the menu there. They were great but because of the perverse subsidies, it’s an iatrogenic issue because of the perverse subsidies in the Farm Bill, the burgers are 99¢ cents, the salad was $5.95. If you’re on a fixed income, as you say, you get more calories for your dollar by eating junk food. I came up with this term globalization of chronic disease, other countries are starting to eat like us and live like us and die like us.

The irony is that the diet they were eating before was the diet that we found could reverse and prevent all these conditions. It’s basically fruits, vegetables, whole grains, legumes, soy products. These are things that generally are the least expensive things except for the fact that our subsidies are so out of kilter.

Kirkpatrick: Yonatan Adiri, I don’t think he said it onstage but he told us at dinner last night that in Israel they have no VAT on fruits and vegetables. So they specifically made a national policy to have no tax on healthy foods.

Ornish: And not only we tax the healthy foods but we subsidize the unhealthy foods. We actually make it cheaper to eat the worse foods.

Kirkpatrick: We go the opposite direction even worse. You want to say something? Okay.

Audience 4: I think we shouldn’t pull our punches on this one. We do live in a system where the sort of agricultural food industrial complex is extremely powerful and is generating tremendous costs at the very least but real suffering. It’s not that these people are poor, it’s that they’re the most subject to those traps.

Ornish: Well, I agree with that but I think that’s a larger discussion about—

Kirkpatrick: He’s been talking about that for 30 years! This thing about Facebook is new.

Audience 4: Yeah, I’m just trying to kick it in the discussion a little bit.

Ornish: I agree. No argument from me.

Kirkpatrick: We’re running short on time but if anybody has any—

Ornish: By the way, I think the founding fathers were geniuses in the idea of separation of powers but they didn’t anticipate corporate America having so much power with no checks and balances and that’s part of the problem.

Kirkpatrick: I’ll say, that’s a good point. How about somebody who hasn’t said all day but just wants to throw one last thought in or two last thoughts?
Okay, thank you so much. Please identify yourself, the mike’s right behind you.

**Solange:** I’m Solange and I work with Community Health Center and I work with a lot of immigrant patients and just to really point out what you’re saying is so true, I have a patient who said she wasn’t leaving the house since January because she’s afraid that if she leaves the house she’s going to get deported. She’s diabetic, she gained 10 pounds, her A1C went from 7.5 to 11 because she started eating her traditional food of tortillas and she said, “I have a lot of stress and all I can do is eat.”

I think you got to the root of the problem. What do we do about the stress? It is the food industry and it the lack of affordable, healthy foods. But really what motivates obesity and diabetes is stress-related eating. So what would you say to that?

**Ornish:** Well, that’s true, whether it’s food or some of the other things we talked about, I agree with that and that’s why we come back to this idea of community and love and support. I just find that when people feel loved and supported, no matter what stress they’re under, they’re much more likely to make lifestyle choices that are life-enhancing than self-destructive.

Liz Blackburn and Elissa Epel did an amazing study. They looked at women who were chronic caregivers of parents with Alzheimer’s or kids with autism. They found the more stress they felt and the longer they felt that way, the shorter their telomeres were. And when you compared the low stress and the high stress women, it shortened their lifespan by 9 to 17 years.

That’s a lot but what I found even more important, more interesting was that it wasn’t an objective measure of stress, it was the women’s perception of it. You could have two women in very similar life situations. One was coping with it better. They were doing the things we’ve been talking about. They were exercising, they were meditating, they had social support, they had a sense of a meaning in their lives. That was really the key difference. You may not be able to change the situation you’re in but we have a lot of tools on how we can teach people to manage them and I think having Facebook do communities that are really based true intimacy and authenticity could be a real buffer to that and could be profoundly healing on a huge scale.

**Kirkpatrick:** Well, that was really good. Thank you so much, Dean, thank you. I really appreciate you being with us and I hope to continue this dialogue with you.