Welcome to Yale Cancer Center Answers with your hosts doctors Anees Chagpar, Susan Higgins and Steven Gore. Dr. Chagpar is Associate Professor of Surgical Oncology and Director of the Breast Center at Smilow Cancer Hospital, Dr. Higgins is Professor of Therapeutic Radiology and of Obstetrics/Gynecology and Reproductive Sciences, and Dr. Gore is Director of Hematological Malignancies at Smilow and an expert on myelodysplastic syndromes. Yale Cancer Center Answers features weekly conversations about the research, diagnosis and treatment of cancer and if you would like to join the conversation, you can email your questions and comments to canceranswers@yale.edu or you can leave a voicemail message at 888-234-4YCC. This week, it is a conversation about making healthy choices with Dr. Zoe Chance. Dr. Chance is Assistant Professor of Marketing at Yale School of Management. Here is Dr. Anees Chagpar.

Chagpar I have to tell our listeners why Zoe is on this show. Here is a little bit of background. Zoe and I are both in this fabulous program called Public Voices, which is going on here at Yale, and as part of the OpEd project, which is really about getting leaders to start to express all of their work so that we can get it out to you, the public, what I thought was so fabulous about the work that Zoe is doing is the way that she is thinking about how we can make healthy choices, and so when I thought about our show and what we talk about every week in terms of cancer prevention and cancer survivorship, I thought, you know what, making healthy choices is something that we all ought to be thinking about, and so I thought this would be really exciting. Zoe, thank you again. Tell us a little bit more about all of this work that you have been doing and how you can help people, especially in this holiday season, try to make these choices, there are things that we do all year round, but it is especially hard this time of year.

Chance Absolutely. And the reason why we need to be doing this kind of research and this kind of education in the first place, is it's not that people do not have information about how healthy choices can be made, what they should be doing, what they should be eating, that they should be doing exercise, things like this that they should not be smoking, but there is this gap between intention and behavior. And a lot of times, we just do not follow through on the things that we know we need to do. And my work is in behavioral economics and we research that area and teach on influence and persuasion, and what we look for are ways to bridge that gap between intentions and behaviors, and it is very simple and operationalized in many different ways but basically making the desirable activities like healthy choices easier or more pleasurable.

Chagpar I will tell you Zoe, as somebody who knows what the right answer is but rarely makes the right choice, I would be delighted to learn how you make that easier because I am sure that everybody right after Christmas and the holidays, we knew that the right answer was to avoid all of the chocolate cake and the bread pudding and everything else, and we knew that the right answer was we have to get to the gym and we did not. How do you make that easier? Tell us about what your findings have been.

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Chance First of all, that is true for all of us. It is true for me too. The first thing that we can do is quit beating ourselves up about not making the right choice all the time, because we want to reduce stress in our lives as well and it is really important for our health. So making better choices is great and if we can focus on making better choices more often rather than making the best choice all the time, because then we are just going to feel bad about it. One example would be when we show up say to holiday party or we are hosting a gathering at our house and we are choosing what foods we should be eating, what foods should we not be eating, how much should we eat, how much should we not eat, and if you just have the goal of, I want to make it as easy as possible for me to eat more good stuff, less bad stuff, less altogether if I am trying to maintain my weight, I might start with eating the stuff that I know is the good stuff and fill myself up, right? I might use a smaller plate and this is something that listeners can do and their families, one of the best things they can do in their kitchen is just restock the plates and cups and silverware to make everything smaller because we tend to feel more satisfied when we are eating from a full plate or cup or bowl even if it is smaller than when we are eating the same amount from a plate that is actually bigger. Another thing that we can do is let ourselves have small portions of the stuff that we love. If you love peanut brittle, go ahead and have a little piece because trying not to eat the thing that you love can make you eat way, way more of the things that you only like. So, letting yourself have a little reward is a helpful thing you can do. Another thing when it is your own kitchen or your own house, is just keeping the tempting foods out of sight as much as possible. We tend to reach for and eat whatever is accessible; things that we can see, things that are convenient to eat. So, if you put a bowl of fruit out on the counter instead of leaving the chips and the cookies out on the counter, it is much easier to see the fruit, and if it is pretty, like putting the fruit in the nice bowl and having it all washed and ready to go, these simple things can make a big difference. And developing habits like, for example, when you want a snack, going to the fridge instead of opening up the cupboard, because the healthier stuff is in the fridge and the less healthy stuff is going to be in the cupboard. In terms of keeping the temptations out of sight a little bit more, and another thing that some people will do is put the tempting foods in an opaque container and this sounds so simple but it is so effective. We have at my house, like a lot of other people do, a box that is opaque for junk food; cookies, chips and things like that go in the box and you know it is in the cupboard but you just do not see it immediately when you open up the pantry door. And other people will put foods or drinks that they do not want to be tempted by, say in the basement. We worked with people that are trying to drink less and so they will put the beer down in the basement and they still know that it is there, but they are taking advantage of our natural inclination to be lazy.

Chagpar I love it. Speaking of being lazy, give us a few tips on how to get

more physically active. Because I think that is something that we know is a good behavior, but it takes a lot of effort, it is not like you can put it in a clear container.

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Chance And with eating and exercise and a lot of health behaviors, the really difficult thing is that we need to exercise will power again and again and again because it is not like on the one day that you are super motivated that you can get all of your exercise for the year, right? Even all of your exercise for the week. So the two things to keep in mind always are how to make it easier and how to make it more pleasurable. With exercise for example, a lot of us will put out our exercise clothes the night before because you wake up, at least I wake up in the morning and I am tired and I am groggy and I am looking for any excuse not to go for a run, but when my exercise clothes are just sitting right next to my bed, I mindlessly put on my jogging shoes and my exercise clothes and then I find myself floating out the door without any intention.

Chagpar It is almost like your gym clothes are sitting there and going, you know that you need to wear me.

Chance It is easier to put on your gym clothes than to put on any other clothes at that moment if you put them there. And also making it fun, whatever exercise you like to do, planning to do that instead of telling yourself, I just do not like lifting weights. I do not think it is any fun at all, but I love doing yoga, I love running outside. So maybe I should be skipping weights to be at my optimal peak level of health, but I am just not going to worry about it as long as I am exercising and exercising with people that we like. A mistake that a lot of us will make is choosing an exercise buddy who has the same problem that we do, of not exercising and then it is really easy for us both to find excuses not to exercise and to feel like oh it is okay because she is not going to go exercise either. If you are looking for an exercise buddy, find someone who is already in the habit of exercising so that they will actually be going instead of giving you an excuse not to go.

Chagpar Trying to find people who have different strengths. You are really good at exercise and I am really good at diet, we can buddy together. Chance Sure. Another really simple thing that makes exercising more fun, and there is actually a TED talk where I talk about this, I got addicted to a pedometer, the particular one was called Striiv and it has video games in it that are so addictive, they were made by the makers of Farmville, which was the super boring but incredibly addictive video game that a lot of people were using on Facebook and many people find that they can't not exercise when they have a pedometer that is measuring their steps because it is so reinforcing to have this granular measurement of step by step positive reinforcement for every single step that you take during the day. So that will be a great Christmas gift, for example. Chagpar Like the fit bit that says, you just climbed the Hollywood sign.

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Chance Yeah. They are silly, but they work.

Chagpar What about doing other things? One of the things that you talked about that I think is a big issue for a lot of people who are thinking about cancer prevention is quitting smoking. Now, this one is really hard. There are great smoking cessation services, there are patches and there are gums, any behavioral things that can motivate you to quit smoking?

Chance I definitely do not have any magic pill that will suddenly allow you to quit smoking with ease. There have been a lot of behavioral economics working on smoking cessation programs where they used incentives, and a lot of those have been successful and it is because once you have quit smoking for a certain period of time, a lot of people do not go back and incentives only work during that time period where people are being incentivized. It does not work as well for weight loss, for example as it does for smoking. If you wanted to create your own incentive program for smoking, there are a couple of Yale professors, Ian Ayres and Dean Karlan, that have created this website that is called stickK.com. I do not know if you know this website or those guys, do you?

Chagpar I know this website but I did not know that it was created by Yale guys, but it is totally great. Anyways, tell our listeners about it.

Chance It is great. And a lot of my students and a lot of my friends and colleagues have used this site to make habits or break habits. And what you do is you are betting your own money that you will do a certain thing or not do a certain thing. It is totally designed by you. You could say you are going to check in on smoking and measure if you are not smoking or you are going to check in on exercising or eating or whatever it is but you are staking your money on yourself, and you decide what happens to your money and you decide how much it is, but if you do not follow through and if you do not hit those milestones, then the money gets sucked away, it could be that it goes to a friend or it could be that it goes to a group of friends and they have a party without you, it could be that it goes to one of your hated causes. So, say you are prolife or prochoice, say you bet 100s of dollars that you are going to go to this cause that pains you in the depths of your soul, that you are supporting this thing.

Chagpar I love that idea and I encourage our listeners to check it out. I love this whole idea of intermixing behavioral economics and medicine and what we do in cancer medicine. How long has that been going on? Tell us a bit about how that meshes. Because it seems like it really does. I mean people pay people to quit smoking and they quit smoking. Hopefully, they stay quit.

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Chance Behavioral economics has become increasingly popular, especially over the past few years and it has not been more than a decade or so that there have been a lot of people doing research in behavioral economics and medicine and medical decision making, but it is a great partnership, so I think it is going to be increasingly more and more fruitful, some of the researchers that are working in both of those areas are Kevin Volpp at the University of Pennsylvania and Peter Ubel who is at Duke, and they both are physicians that are now working in decision making and so they are bringing their medical knowledge together with people who work in decision making and investing a lot in it.

Chagpar We are going to take a break for a medical minute. But I hope you are all enjoying this and please stay tuned to learn more information about healthy decision making with my guest, Dr. Zoe Chance.

Medical Minute The American Cancer Society estimates that over 15,000 people will be diagnosed with colorectal cancer in Connecticut alone this year. When detected early, colorectal cancer is easily treated and highly curable, and as a result, it is recommended that men and women over the age of 50 have regular colonoscopies to screen for the disease. Clinical trials are currently underway at federally designated comprehensive cancer centers such as the one at Yale and at Smilow Cancer Hospital to test innovative new treatments for colorectal cancer. Tumor gene analysis has helped improve the management of the disease by identifying the patients most likely to benefit from chemotherapy and newer targeted agents resulting in a more patient-specific treatment. This has been a medical minute brought to you as a public service by Yale Cancer Center and Smilow Cancer Hospital at Yale-New Haven. More information is available at yalecancercenter.org. You are listening to WNPR, Connecticut's public media source for news and ideas.

Chagpar Welcome back to Yale Cancer Center Answers. This is Dr. Anees Chagpar, and I am joined tonight by my guest, Dr. Zoe Chance. Zoe is an Assistant Professor in Marketing at the School of Management and this is one of the reasons I love this show because we get to bring in all of these fabulous voices, these fabulous minds from disparate fields to talk about things that matter to patients who are thinking about cancer prevention and cancer survivorship, and today we are talking about ways that people can lead a healthier, happier and more fulfilling life, how great is that. Zoe, before the break we were talking a little bit about using some of the techniques with behavioral economics and other things to make better choices in terms of diet and exercise and smoking. The other thing that you said right at the top of the show, which I think is so important is that people need to stop beating themselves up, we need to decrease the stress in our lives. Can you talk a little bit more about that and what advice you have for people who are trying to reduce stress because lord knows a lot of cancer patients have a lot of stress and stress leads to a lot of cancer.

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Chance Something I have been thinking about a lot in general, but especially this week because it was Thanksgiving when we are taping this right now, is gratitude and going into the holiday season how this is such a stressful time for people and one of the most high leverage activities that we can do is simply keeping a gratitude journal, and there has been a lot of research in psychology on the positive benefits of keeping a gratitude journal and something that I love about that is that differently from the positive effect of say eating well or exercising, when you eat well, you get healthy years down the road, and you do not exactly know what the effects are, keeping a gratitude journal reduces stress in the moment. It is a great intervention not just as a daily or weekly practice but right in the moment when you are feeling stressed, it can totally shift your mindset by shifting what you focus on and actually changing your hormones. Gratitude journals have improved people's psychological health, their physical health. People report literally reduced aches and pains when they keep a gratitude journal, decreased viral load and improvements to their immune system, better sleep and more resilience, lower rates of PTSD. I have my students keep a gratitude journal because it is so powerful.

Chagpar That is really awesome and something that I think there has been a lot of work on and a lot of people really buy into this whole concept of the power of gratitude, certainly I do. But it is really difficult and maybe you can help us with a few techniques. At the times when I am the most stressed or I am angry or I just am really at my wits end, it is really hard in that moment to think about gratitude. I can do that once I have settled down, at the end of the day I can take a deep breath and think, you know what, there are a lot of things to be grateful for, but right in that moment, it is like aahhh.

Chance And that is why it is so useful, and when I am giving gratitude challenges to my students, they have weekly gratitude challenges while they take my class on influence and persuasion, and some of the most impactful gratitude exercises that they do are finding the good and difficulties in their life. So, finding the good in stressful situations, finding the good in failures, what possibilities or opportunities they have, for example, cancer. A lot of my students have had medical issues, family traumas, and when they are able to shift and find the good in it, that is the practice that helps them more optimistic overall and in the long run, but I am not going to lie, it is a really hard but it is meeting that challenge in that moment that provides the benefit.

Chagpar I will tell you, I have had so many patients, it may not be at the moment that you are the most stressed or the most scared or the most worried or the most frightful, come out of cancer a stronger, healthier, more vibrant person because they do just that. I have had patients who say, I never used to travel, I used to be scared to travel before my cancer diagnosis. But it puts a frame shift in your mind and they are like I want to go see the world and they do, or they want to be healthier and they quit smoking, or they reignite relationships that they had put aside before because I think that whole experience kind of gives them a new outlook and it very much plays into, I am grateful to be alive. 20:09 into mp3 file https://az777946.vo.msecnd.net/cancer/2016%200103%20YCC%20Answers%20-%20Dr%20Chance\_240637\_5.mp3

Chance Absolutely.

Chagpar But do you think that in order for gratitude journals and these challenges to be effective, does it have to be in that moment when you are the most stressed or can it be after? Is it more effective in that moment, and if it is more effective in that moment, I am still struggling with when I am really upset, there is no way I am keeping a gratitude journal.

Chance Maybe it depends on what you mean by in that moment. If you mean in that moment where you are sobbing your eyes out or ready to punch somebody's face in.

Chagpar Yeah, that is the moment.

Chance Go ahead and feel that, but if it is that day, an hour later or in the moment where you are feeling sad and you feel like you could cry, that is also different and that is the time when you can take a step back. But if you want to punch pillows, kick things, yell, scream, go for it, preferably at a kickboxing class or in your bedroom with a pillow, just a word of caution. But I agree with you and it goes to this whole thing about never go to bed angry, never go to bed upset. I learned that at least on the Cosby Show from Heathcliff Huxtable. But it is a great thing to remember for ourselves too.

Chagpar And I think that this whole idea of positivity and embracing everything that is good in life can sometimes make the things that suck, and yes cancer sucks, much better.

Chance And it is not pretending that it does not suck, it is just finding the good along with the suck.

Chagpar I agree. I want to shift gears just a bit because I want to hear more about some of the really exciting field studies you have done. I have heard just bits and pieces, but I want you to share it with everybody.

Chance I will share a couple of really specific field studies to show how it can make a huge difference to make a tiny tweak. We have been working with Google. I work with Yale Center for Customer Insights and the Google Food team and we have been partnering for a while on helping Google employees make healthy choices by accident. We will send out undercover spies to pretend that they are Googlers, they are secretly our RAs and they will just watch people's behavior in a break room, and one thing we were curious about was how much people were mindlessly snacking when they are grabbing a coffee or a drink if the coffee machine is close to the snacks or if the coffee machine is farther from the snacks. It is in the same room. So there is one close coffee machine and one farther coffee machine and we had our undercover spies record the people that went and took a cup of coffee, 23:02 into mp3 file https://az777946.vo.msecnd.net/cancer/2016%200103%20YCC%20Answers%20-%20Dr%20Chance\_240637\_5.mp3

did they grab a snack, and what we found was that the people who grabbed a cup of coffee from the machine that was close to the snack bar were 50% more likely to then grab a snack before they went back to work, and when we looked at the average calories in the snacks, we calculated and estimated that men were more prone to this effect than women, the effect over a year's time of taking an extra cup of coffee from the close machine would be gaining about a pound.

Chagpar Oh my goodness.

Chance From increased snacking. When we presented these results to Google and someone from the architecture firm that they worked with who was there well, he immediately called his boss at the architecture firm and said listen, when we design cafes and snack bars for any of our clients, we absolutely have to separate the drinks and snacks.

Chappar That is a great tip.

Chance So we can be doing that at home, it is something really simple that we should keep in mind.

Chagpar The other place where I mindlessly snack is if I am working on something. It is amazing how many chips go into my mouth or how many crackers go into my mouth, and before you know it, I am working on something and then the box is done.

Chance Exactly, and that speaks to another experiment that we ran at Google that can help us feel better about ourselves when we eat the entire bag or the entire box.

Chagpar Oh good. I am going to need this one.

Chance It turns out that all of us as humans whether it is an intellectual belief or it is just a habitual belief, we think that the right amount to eat is the whole We just need to give ourselves smaller servings, like if you are going thing. to buy junk food, do not ever try to save money on buying a bigger container. Buy servings as small as you can or when you bring them home, serve yourself into bags or servings as small as it can be. At Google in another break room, the snack that is most popular there is M&M's and they were serving them from bulk containers into these 4-ounce cups, and almost everybody would fill the 4-ounce cup and that is actually a lot of M&M's, but they filled the cup, go back to work, so all that we did was we switched out these 4-ounce cups for fun size Halloween candy type packs and people reduced the amount of M&M's that they were eating by more than 50%. It was from over 300 calories to about 150calories because it is just easier to grab a pack than to grab 2 or 3 or whatever. We just need to accept that we will act as if the right amount to eat is the whole thing, so rather than trying to control the amount to eat, control how much the whole thing is.

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Chagpar That goes back to your whole thing about the plate.

Chance Exactly.

Chagpar You do not like to see empty space on the plate.

Chance Yes. And when we are filling a plate at a buffet or a party or something, we fill our plate with the first items that we come in contact with, so just start at the healthy side.

Chagpar Put the salad on first, fill half the plate with the salad and then the rest is condiments.

Chance Yeah. This is not rocket science, it is just a matter of putting these common sense things into practice.

Chagpar I am so going to take the chips and the crackers and put them into little snack-sized baggies and put them in an opaque container as soon as I go home because I really do go through the entire box. Chance We all do.

Chagpar Tell me more about other studies that you have been doing. I think it is fascinating that you have been working at Google. Any other studies that you would like to share?

Chance A really silly one that we did was advertising discussing vegetables. People said I would never eat these vegetables that I hate and we decided to choose people's 5 most hated vegetables.

Chagpar Okay.

Chance Which were Brussels sprouts.

Chagpar Broccoli?

Chance No, broccoli was the one more people liked than hated. There were Brussels sprouts, squash, beets, parsnips and one other horrible one that I cannot remember.

Chagpar I would agree with that list, though I would add broccoli, but anyways carry on.

Chance And we asked people, would you eat more of those if we advertise, and they said no. We said, would you eat more cupcakes, cookies, donuts if we advertised, they said absolutely yes. We put

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advertising messages with trivia right there where the vegetables were being served and we call this a moment of truth. When you try to convince someone to do something right at the time and place when they are actually able to act on it, it is much more powerful than say if you tell people – hey, it is really important to eat more vegetables, and we just put a beautiful fun sign with beautiful pictures on it and silly trivia saying, try the beets and did you know that the biggest beet ever grown was over 500 pounds and was by a Dutchman. Who cares, it does not matter and yet it got people, 75% more people, to try these horrible vegetables and they served themselves two-thirds larger servings.

Chagpar Unbelievable. I am not sure that the bright sunny picture and the trivia would work for me personally because I would probably go and steal a parsnip and steal a brussel sprout, but for all of you out there who are trying to think about disgusting vegetables, you should try this.

Chance You can give your vegetable dishes cute names to make people more excited to eat them and that is something Brian Wansink who is at Cornell and his researchers will do when they work with school systems and cafeterias. They will just give their vegetables nice names and kids are more likely to eat them, and even with fruit like fresh Florida oranges. Everyone can see the oranges are fresh, we know they mostly come from Florida but a little sign that says, fresh Florida oranges makes people more likely to take them.

Chagpar Interesting. What other tips, I am trying to milk Zoe for everything she has got.

Chance We have certain times of the week or the day that we have more motivation or will power to make the right choice, so we want to leverage those as much as possible. If it is in the food context for example, when you are cooking a healthy meal, just have the intention and the practice of always making more of it so that you can have leftovers so that you can freeze some of it, and at a restaurant, I do not know if your listeners know, but restaurant meals are 4 times bigger than they used to be in the 1950s. We know that we get lots of food in the restaurant. Instead of trying to have the will power to only eat some of it and leave the rest on the plate, ask them to plate up and put in a doggie bag half of your meal before you even start.

Dr. Zoe Chance is Assistant Professor of Marketing at Yale School of Management. We invite you to share your questions and comments, you can send them to canceranswers@yale.edu or you can leave a voicemail message at 888-234-4YCC, and as an additional resource archived programs are available in both audio and written form at yalecancercenter.org. I am Bruce Barber hoping you will join us again next Sunday evening at 6:00 for another edition of Yale Cancer Center Answers here on WNPR, Connecticut's Public Media Source for news and ideas.