

Weight bias. Obesity specialist Fatima Cody Stanford, MD, discusses what's behind the most common form of bias in the US, how that bias causes stress, and the role of stress in obesity.

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Dr Mason: Hello and welcome to a new episode of the Health Disparities Podcast, conversations about health disparities with people working to eliminate them. I am Dr. Bonnie Simpson Mason and this week, we are recording our conversations at the National Harbor in Maryland, where we are enjoying a very busy program of speakers and workshops, at the annual Movement Is Life Caucus. Today, I have the pleasure of interviewing and having a detailed conversation with one of my first mentees, who is now evolved to be one of the nation's experts in obesity medicine. Dr. Fatima Cody Stanford, Obesity Medicine Physician Scientist, who cares for children, adolescents and adults at Massachusetts General Hospital and Harvard Medical School, where, among many other things, she's also an associate at the Disparities Solutions Center, affiliated faculty at the Mongan Institute of Health Policy, and an executive committee member for the Nutrition Obesity Research Center. Now that is a mouthful because this person that I'm proud to say is a former mentee, friend, colleague, but, also, expert, is going to share with us and enlighten us today on the many aspects of obesity and we couldn't be happier to have you here today with us.

Dr Stanford: Well, thanks for having me. It's a delight to be with who I still consider to be one of my mentors and closest friends.

Dr Mason: Absolutely. So, you know that Movement Is Life Caucus centers around us looking at pain as being the nidus for the evolution of so many other comorbidities. Obesity being one of those primary related diseases. So, there're a lot of myths and misunderstandings about obesity. Do you think that obesity brings on its own bias to people who may be experiencing bias due to race and gender?

Dr Stanford: So, I think there is a significant overlay when we're looking at race bias and weight bias. So, what we do know, now, in the United States that the most prevalent form of bias is, indeed, weight bias. So, we are at our own freewill of making fun of people who carry excess weight. If you look at many of the roles that are in media, you know, people are lauded for making fun of themselves, if they carry excess weight. We see them in roles in which they're often eating unhealthy foods, being sedentary and things of that sort. So, if we want to overlay something like race, which we know is the second most common form of bias here in the United States, often sometimes understated, not quite blatant. When you have the overlay of those two, you can imagine that those present significant problems. And, when we look at the issue that obesity disproportionately affects racial, ethnic and minority populations, so, we can see that there

might be an issue when we're looking at that population that might struggle with excess weight and the biases that they receive. Imagine a black woman who has severe obesity and what biases she might face and how that will lead to her inability to even achieve and attain in life because of all of the notions of who she is before she says a word. And that impact affects her professionally, personally, interpersonally. Right?

Dr Mason: Absolutely.

Dr Stanford: I think that it goes across all spectrums. Look at, let's say she wanted to get a job and she's highly qualified. I can tell you, when I was looking at an individual of mine, who's a patient of mine, highly qualified to do a role of a unit secretary in a hospital. She went in and applied for that job, had an excellent CV that spoke to her expertise within the field and I overheard the nursing staff, who was in charge of making the final selection for her role, speaking about her and one of the things they immediately stated was that, "Does she really believe she can do this job? Have you seen how heavy she is? Oh, we would never consider her." It had nothing to do with her qualifications. And so, this person who happened to be a patient of mine was like, "Well, have you heard about the role?" I had heard about the role and I had heard the discussions surrounding her qualifications for that position had nothing to do with her ability to actually

carryout the role, but was, indeed, primarily focused on her weight and weight status.

Dr Mason: Weight bias in full living color.

Dr Stanford: Absolutely. She also happened to be a woman of color. So, she was an African American woman. So, the overlay between those two in a southern hospital, I think, just had all the dice against her, unfortunately.

Dr Mason: Speaking of that dual level of bias, about 35% of African American adults are obese.

Dr Stanford: Actually, much, much higher. So, 40% of the US adult population has obesity, 60% of African American women have obesity. Another 20% have overweight, which means that 80% of African American women in the United States have overweight and obesity.

Dr Mason: Okay, well, let's distinguish between the two. Let's clarify.

Dr Stanford: Okay, absolutely, absolutely.

Dr Mason: Define for us, just in laymen's terms, what overweight is versus obesity, please.

Dr Stanford: Absolutely. So, when we look at it from a clinical definition, we use this term called Body Mass Index. So, Body Mass Index takes into account your height and weight and then, puts you in a category. Now, if you're listening to this podcast do not apply what I'm going to say about adults to children because the definition does vary when you're looking at children versus adults. So, we'll focus on the adult population here. A person is considered to have overweight if they have a BMI of 25 to 29.9. That is the clinical definition of someone who has overweight. Someone has obesity when they have a BMI greater than or equal to 30. So, there are different classifications. We can get into looking at mild, moderate and severe forms of obesity and we don't want to get into those different numbers because the numbers do vary based upon the severity of the obesity. What we're looking at is we're talking about 60% of African American women have a BMI of 30 or higher. So, very, very large numbers. 40% of the US adult population has obesity here at the current numbers that we have that have been reported out from the Center for Disease Control & Prevention. So, very high numbers. This is not an issue that we should take lightly, secondary to the significance and prevalence in today's society.

Dr Mason: You know, so, these numbers are incredible. What are we doing in the US that's contributing to these extreme rates? Obesity, you said that's a BMI over 30.

Dr Stanford: Yes, equal to or greater than 30.

Dr Mason: I mean that's 40% of the US population and like you said 60% of African American women. What are we doing because this is a lot?

Dr Stanford: So, I think it's multifactorial and I think one of the issues that has been a major failure and that's not here only in the US, but, also, in the UK and around the world is that we've hyper focused on two primary causes or what we perceive to be the ideology of obesity. We perceive it's all about food consumption and physical activity, but what we do know in the obesity community that it is much more complex than that. For example, one of the things that I think people don't recognize is how highly heritable obesity actually is. Obesity is more heritable than height. So, if you think about two tall parents. Let's say you have a dad that 6'8" and a mom that's six-feet tall, you presume that if they have children, that their children will likely be tall. The likelihood that they'll be 4'11", pretty low. Right? When we look at obesity and its heritability, it's somewhere on the order of 70% to 80%. So, highly heritable. So, if you have parents, and we have 40% of the US adult population, potential people that can be

parents, contributing to this obesity epidemic, just them having the children, without anything that you do once you get them here, really, contributes to our obesity epidemic. Right?

Dr Mason: So, you're saying that genetics is playing a significant role in obesity, on top of food consumption and physical activity.

Dr Stanford: Well, those are just two other things. So, we can get into other issues.

Dr Mason: Well, you did say multi. So, let's just talk about some of the things that we can tackle if you're listening to this.

Dr Stanford: Okay, sleep quality and duration plays a large role in how the body regulates weight. We know the brain actually regulates weight and there are certain pathways, you guys can't see this and I'm not going to go into the complexities, but what we do know is that the same part of the brain that controls weight interacts with the part of the brain that controls our sleep. So, when sleep is dysregulated, what you may see without modifying either diet, quality and/or physical activity is you may see either increases and/or decreases based upon how you're modulating that sleep part of the equation.

Dr Mason: So, sleep is playing a role in it, as well, everyone. See this is golden information for us here.

Dr Stanford: I think we, as doctors, are significant contributors. I think we are a big contributor and one of the key things that we contribute, in addition to our biases, is we prescribe many medications that cause weight gain. So, we know that ads come on television all the time, and you usually see a person flying around with a kite, riding their bike and walking their dog, and then, they get to the disclaimer of what the side effects are, and if you listen closely, they say it very rapidly, much like an auctioneer would but weight gain is often included in those side effects. So, we're treating other issues, which is great, but we're causing and/or contributing to the problem of obesity and one of the key things I do with patients is I look at their medication list. See what they're on. See if I can adjust with, of course, talking with their doctor, so I remain amicable with my colleagues, certain medications to ensure that we can, potentially, just make tweaks. So, this is one. I'm a black woman, and so, I spend a lot of time at the hair salon. So, this is relevant. I went in to see my hairstylist one day and she had gained some weight and she was talking to me. She's getting free advice because I'm sitting in her chair and one of the things, she said to me was, "You know, I went on this medication for depression." I was like, "Really, what did you go on?" And she told me she had gone on a particular drug. And I was like, "Well, why did they choose that particular

drug?” She’s like, “I’m not sure. That’s just what they put me on.” I said, “Well,” and I wrote out on my business card, which I had. I said, “Tell them I want you to try this drug in this dose...” and blah, blah, blah, “and just give them my card, so they know it’s not just you making this up.” By the time I came back to her eight to twelve weeks later, I can’t remember if it was eight or twelve weeks, she had lost 21 pounds with one medication adjustment. She was like, yeah. I felt like I should have gotten my hair done for free, right. You guys agree with me, right? Just my thoughts.

Dr Mason: Absolutely.

Dr Stanford: Because that was free advice from just, you know, one of the experts on obesity, but one of the things that I was really happy about was to see that she was able to quantify, well, I was able to quantify that she had, indeed, been able to lose weight with one modification, changing one drug, still treating the disease that is depression, but changing the medication to one that was more weight neutral.

Dr Mason: What I also hear is your willingness to communicate with her, a point of vulnerability. You all, clearly, have a relationship, albeit, not doctor/patient, but hairstylist/client still as dependent, but she was able to advocate for herself, which is what I think we want many of our listeners to be able to do. We want them to be able to ask the question, “Are my

medications, doc, potentially, contributing to my state of obesity, on top of everything else, because I, now, understand that could be a contributor.” So, I think that advocacy, you really empowered her, but let’s speak about some of the other comorbidities associated with... So, comorbidities are the additional disease conditions or states that may evolve once someone is obese. So, let’s just talk about a few of those because I know from your position, when you see patients, you evaluate the whole patient, and all of their associated disease processes. So, it’s not just obesity. It’s the fact that it opens up, essentially, another full set of problems for our patients.

Dr Stanford: Yes, and so, absolutely. So, what we do know about obesity is that it’s associated with at least 100 plus, what we consider comorbid conditions or obesity related illnesses. I kind of try to like remove that word morbid because it obviously is morbid, but we do know it’s associated with many issues. Some of the key diseases or obesity related diseases that we often think of are heart disease, Type II diabetes, obstructive sleep apnea. Those are kind of the big three, but many cancers, often, many arthritic issues and orthopedic issues, heart issues, lung issues, are all related to obesity, and what brings me joy in the work that I do is that when I treat the obesity, I’m often able to rid them and/or decrease the likelihood that they have many of these obesity related illnesses. It’s really, the only disease, where you can treat it and fix many other things. So, if I treat your severe obesity and let’s say you develop either mild obesity or just

are considered overweight, oftentimes, I'm able to resolve your high blood pressure. I'm able to get rid of your sleep apnea. You no longer have joint pain. And, I'm removing medication after medication, resolving issues in your chart, so much so, many times I'm like, "What am I going to bill this patient for because I've gotten rid of all of their problems." So, thankfully, for ICD10 codes, I can say, history of obesity, as something to bill for, but what I get joy from is seeing those resolutions of those issues and/or significant improvement. So, I really, think those are issues, we look at Type II diabetes for example that can start very early in life with insulin resistance and often, we're seeing this show up in many of my pediatric population, before the age of ten. If I can intervene early enough, I can either prevent the likelihood that they develop diabetes and/or completely resolve their diabetes, which is, you can imagine, not only great for them, it's great for healthcare systems. It's great for healthcare spending. It's great all across the board. So, it's a win-win situation.

Dr Mason: I think just understanding that obesity, in and of itself, lies at the core of so many of these other conditions, I think that's an important point for our listeners to know. So, if we can attack that, we can even prevent some of these other issues. And, of course, here at the Movement Is Life Conference, we talk about movement and exercise, being at the core of life and helping to curb the condition of being overweight or obese.

Dr Stanford: I'm going to stop you my dear, Dr. Dr Mason Simpson. We don't ever want to use the word obese. So, I would say delete that word from your...

Dr Mason: Delete, delete.

Dr Stanford: Because obese is a label. What we know as obesity is a disease. And so, one of the things that we think about when we're looking at obesity is that we want to not promote stigma by labeling someone as obese. And so, I will change that in the chart, and I will say, obesity, which is a disease, a process that is controlled by the brain and affected by different organs like the stomach, the fat tissue, etc., but we want to just say the patient has obesity. So, we remove some of the stigma from the individual. So, I like to delete that word and I take much pride in doing so. It's that people first language. Talking about the person first, and then, they have this disease that we're willing to treat. So, that's my first thing. You said something else that I feel like I missed and didn't capture.

Dr Mason: I'll probably say it again, and so, you can correct me on that point, too. I love, I mean, we have to learn and grow. So, we don't want to be contributors to the denigration of people who have the disease of obesity.

Dr Stanford: I mean you are a great later.

Dr Mason: Thank you so much. I'm fast, too.

Dr Stanford: You are. You are supper fast.

Dr Mason: So, you talked about how some of the chemical messengers from the stomach and some of these other organ systems played a role. Can we break that down, just briefly?

Dr Stanford: So, the easiest way I can think of it is there is a part of the brain called the hypothalamus and the hypothalamus is really, the part of the brain that's regulating, not only how much you eat, but it's also regulating how much weight you store. And so, there are two primary pathways down the brain that one might travel. One is the anorexigenic pathway and we hear anorexia and that means that maybe I'm not eating, I'm not storing very much. So, those people tend to be very lean. Then, other people travel down the orexigenic, which is the opposite of anorexigenic, which means that they tend to not only eat more, but store more. And so, often, you might talk to your friends that may struggle or have excess weight and they're like, "You know what? If I look at that piece of pie, I think I gain ten pounds." It's a little bit of an exaggeration but them having one morsel of that pie may, indeed, pack on and/or store much more weight than someone that's significantly leaner. What we do, as individuals, and these

are our biases, if we see a lean person walk by, we presume that they're eating very healthy, they're exercising, they're doing all these things, when, indeed, what we find, especially, amongst our patients that have had obesity and have really struggled with this disease throughout their life force is that they are actually more active and more attentive to their eating choices because it does matter. For those persons that are lean, they don't have to think about it. It's like an afterthought. They're like, whatever. "I can eat ten slices of pizza. I'll maybe weigh a pound more tomorrow." The bias is that if you see that person that has severe obesity walking by, "They're not active. They're not doing anything." But what I see in the gym, let me tell you, is that they're often going twice as hard for twice as long, but their body, unfortunately, defends a higher set point for weight. One other good way, I think, to look at it is that I think of people as having different sized gas tanks. Those that have severe obesity have a gas tank of an army tank. So, imagine those big army tanks, how much gas it might take to fill them to propel around the streets. Then, maybe lean people, they have the gas tank the size of a Prius. Some of those lean people, especially, guys, they want to bulk up. They want to get strong, but they're little bitty people. I mean, their gas tank is the size of a Prius. And so, their brain is like, "No, you have the gas tank the size of a Prius. We're going to do what we can to keep it a Prius." The people that have the gas tank of an army, they may want to be a Prius, but, you know, what, their body is like, "Nope, we have an army tank to fill," and it's going

to compensate to make sure that it stays at that set point for weight to maintain that army tank. So, that's what it is. It's about that set point, and some of it is genetically determined, some of it is influenced by our environment, some of it is influence by medications, but that set point, once it gets there, let's say you get to 300 pounds, and it's been there for a year, the brain remembers and it does whatever it can to get back to that point.

Dr Mason: That's where it wants to stay.

Dr Stanford: That's where it wants to stay. It wants to stay there, and we can do things. I'm not saying the battle is overcome. We do have strategies to address that, that actually affect how the brain sees weight. Surgery for those that have severe obesity. Medications, most act on the brain to regulate how the body sees weight. So, there are different things. I'm not saying that you just have to use those but we step up therapy, when we recognize that lifestyle modifications like exercise, diet, medication changes have not worked, we step that and graduate that therapy up to the highest forms of therapy for those who need it most.

Dr Mason: Well, that's what you specialize in and I think I'm hearing a couple of our listeners breathe a sigh of relief to know that, a) there are other options that can be pursued, effectively that work, but, also, 2) so, you don't have

to feel so guilty. I've been eating the right things and I've been trying to exercise, or I have been exercising like you said, twice as long and getting half the results. There's a set point in your brain that is trying to maintain the tank size.

Dr Stanford: It's trying to maintain the tank and you're like, if you're running into that situation where you're doing all of the things. You know, those things, looking at diet quality, physical activity or sleep and you've maximized those and you're still struggling, I would seek out care from someone like myself that specializes in obesity medicine to graduate your therapies, to make sure that we're able to help you achieve and maintain a healthy weight.

Dr Mason: So, I love that. So, we're giving our listeners some options and different ways to think about obesity, the disease, but let's talk about some real-life influences and stressors as we close. There are environmental pressures to remain physically active, but, then, there are also stressors, such as race. And so, this is going to be a power packed question for our last couple of minutes, but how do these environmental pressures limit our physical activity? How does stress contribute to our disease state of obesity?

Dr Stanford: Oh, absolutely, I have this. I think I've got it for you. If we're looking at something like racism and what we do know from like a study like the Jackson Heart Study is that people that experience racism often carry more excess weight than others. What happens is if you experience racism, stress hormones in your body like C reactive protein, cortisol, IO1 and IO6, you guys don't have to remember this, I do, they go up. And, when our body experiences stress from an evolutionary perspective, it sees stress as the thought process that a famine is coming. The problem is the famine is not coming, but our bodies don't distinguish the stress of not having access to food from racism, from stress at our job, from stress in our relationships, and so, what it typically does is it wants to store fat.

Dr Mason: Oh, that makes me angry, but that's good to know.

Dr Stanford: Yes. So, when we look at this overlay of racism, weight bias, the higher prevalence of obesity in racial ethnic minorities here in the US, I do think racism is a contributor. It's hard to quantify but if we look at something like weight bias internalization scale and look at race and racism scales that are out there and that are validated and I think if someone were to do a great study looking at the overlay, we would see that there's a significant synergy, unfortunately, between racism, excess weight, secondary to excess stress.

Dr Mason: And then, hence, the 60% of African American women who are obese, who have obesity, okay, okay, I'm going to get it permanently, but who have obesity, these are the contributors.

Dr Stanford: Absolutely.

Dr Mason: Well, Dr. Dr Stanford Cody Stanford, I think that we have just learned so much from you today. We certainly are going to invite you back for another episode, where you can share information with us, because I had like five additional questions that I didn't get a chance to ask you, but I think we've covered, from a fundamental perspective, some of the key components of the disease of obesity. So, I can't thank you enough. In my mind, some of the most important things that we talked about today include, now, understanding the most prevalent form of bias is weight followed by race. Then, we have the overlay of both, then, we actually have compounding factors leading to the numbers that we were talking about; 40% of the US population having the disease of obesity, as well as, 60% of African American women. I, also, thought that understanding that the disease of obesity is a multifactorial, meaning it's cause has many sources, not just food consumption or physical activity, but, also, genetics, sleep quality and you could probably list another four or five more, but I wanted our listeners to know that it's not that simple.

Dr Stanford: It's not that simple and so, don't beat yourself up. I think that's the key thing. My patients often are their worst critics and they're their worst critics because what they've heard from their doctors, their family members, their peers is that they have failed and my goal is to help them realize that they're not, indeed, a failure. There are options. We can treat this disease. We do have treatments available and to seek care from those that are able to provide that care.

Dr Mason: So, Dr. Cody Stanford, I'm interested about your opinion on the effects of our patients with the disease of obesity and their a) compromised musculoskeletal health, but, also, their perception, their, I should say, maybe any disparate care they may receive, not just from primary care physicians, but, you know, orthopedic surgery specialists and have you seen an impact, when it comes to caring for our patients who we know have joint issues secondary to their weight or maybe preexisting. Give us your thoughts on that.

Dr Stanford: Absolutely. I do think that when we look at patients that have excess weight that there is this presumption that they're less physically active than their normal weight or lean counterparts. And so, the presumption is that they're not working hard enough, they're not active, and, I think, often, especially, when they're seeing our specialty physicians, particularly, orthopedic surgeons that they are met with, they meet significant

resistance when they go and seek care for joint issues, joint pains. Often, they're just told, "Oh, you just lose weight. Go and lose a hundred pounds. Come back to see me, so that we can maybe take care of replacing that knee or that hip," when indeed, that may be part of the problem, but it may be, also, that what we're noticing is that the patient may just have a chronic history of joint issues that may be secondary to issues that may have developed in childhood. It may be genetically predisposed or what they may actually have is a malignancy in that joint that is just going undiagnosed and untreated because the presumption is, is that excess weight is causing all of the problems. So, what I've seen, unfortunately, and my practice is there was one woman that had come in to see us that definitely had hip pain. Was told that she needed to lose a significant amount of weight before she could receive a total hip replacement by her orthopedic surgeon. She did undergo bariatric surgery. Responded well. Lost on the order of about 110 pounds. Still had hip pain that was actually more pronounced post her weight loss. Went in to see an orthopedist. They did imaging and she was found to have a malignancy or tumor in that hip that she, obviously, had noticed, possibly, but no one had paid attention to the fact that this could be anything but her weight as the cause for her pain. So, we're doing a disservice to our patients and, I think, we, as physicians, must do better. They come to seek care and we can't allow our biases to compromise the level of care that they receive.

Dr Mason: We've spoken about weight bias. What do you think are some of the solutions to curbing the disparities that rear their ugly heads through the weight bias? We can talk about that from the healthcare providers perspective and then, also, from a society's perspective.

Dr Stanford: Okay, so, from the healthcare provider perspective, I think, one of the main issues is that we're just not educated. I just published a review in the International Journal of Obesity looking at obesity medical education in medical schools, residencies, and fellowships throughout the entire world from 2005 to 2018, and what we found is that no country, no level of education is doing a great job of educating about obesity. And, if we are supposed to be the providers of healthcare, whether we be MDs, DOs, RNs, etc., and we're not receiving appropriate education, how can we expect to really do a service to our patients, when this is, by far the most prevalent, chronic disease process and, I would say, the disease of our time. From the society perspective, I think about how the media often negatively portrays persons that have obesity in a very negative way. The presumption is, oh, they're eating boxes of pizza all day and they're eating fast food and they're not exercising, and so, these messages get perpetuated time and time, again, with the media. We really, need to be thoughtful about what we're looking at, what type of shows are being placed and what shows are we consuming, what's being placed on

Instagram. I see a lot of posts about someone that's lost weight and there's judgments about how they lost their weight and that predicts how much value we place on that individual, if we were able to do it, "the right way", which is just diet and exercise. So, these messages are all off and they're continuing to cause problems for our patients that are, indeed, working hard to achieve and maintain a healthy weight.

Dr Mason: Well, we just want to applaud for your efforts to elevate the message around the multifactorial nature of the disease of obesity, educating us on proper terminology, helping us to curb weight bias, especially, as it overlaps with racial biases and other biases that we know are prevalent. So, thank you, so much for your time. We love your insight and input. We need it.

Dr Stanford: Thank you. Thanks for having me.

Dr Mason: And, thank you for listening to the health disparities podcast. Join us again at MovementIsLifeCaucus.com or you can subscribe at the podcast at iTunes, Google, Spotify, and Stitcher. New episodes will be posted every two weeks and, please, look out for our special series featuring thought leaders from our partner organizations. This is Dr. Bonnie Simpson Mason thanking you for your time and energy.

029_Dr Fatima_Cody_Stanford

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