

DANNY LENNON:

The goal of today's episode is ready to narrow in and look at what do we know from current evidence about the actual health consequences of weight stigma, both psychological and physical health consequences, and then beyond that, things like societal consequences as well. And to look at, well, what do we actually know, looking at this evidence, what are some of the things that you think are most important that at some stage of the conversation we get into when this idea is brought up, what do you think right now is the most compelling and interesting aspect of it to you?

ALAN FLANAGAN:

I think, overall, and this is almost in a way, somewhat of a spoiler alert, we will come back around to it, but one of the conclusions that I think is difficult to come away from this literature without is the lack of overall translation of a lot of this into it's obviously something that is more topical now, recent reports from the WHO and otherwise on the effects, but I think that there seems to me to be a fairly clear position that we could derive from the evidence of what might be effective in terms of public health messaging, and a way of kind of campaigning around some of these issues, and that in reality, a lot of that really falls short of what the evidence actually is. And

I also think that it's difficult sometimes to disentangle this as we have the episode, previous episode with Spencer, where we're talking about the issues like BMI, the use of BMI as a metric and other metrics, the idea of kind of metabolically healthy, obese, and these factors, and it seems to me that in a lot of the conversation in relation to this topic, there's almost a conflation sometimes of a lot of these issues. And I personally think that it's absolutely possible to make a case for the importance of considering weight stigma in healthcare and at the level of public health without having to descend into some of the other arguments that I think actually do more to perhaps diminish the veracity of the evidence that we could look at specific to weight stigma, both in terms of measurable physiological effects, and in terms of the actual effect of certain ways of framing messages in a public health campaign context.

And yeah, it seems to me that we should be able to actually make those arguments distinct from having to descend into some of the kind of fairly played out narratives that go in both directions that we talked about on that podcast. in relation There's narratives to presumptions to do with weight and health on the one side, but there's also narratives that would emanate from some of the kinds of weight bias and stigma research as a corollary or almost oppositional to those assumptions. So yeah, I think for the purposes of today that makes our focus is very much specific to weight stigma, and the effects of it and not necessarily delving into, for example, the question of whether there is evidence for success of weight loss interventions, because we've dealt with that prior, but often they get conflated.

DANNY LENNON:

Yeah, very much so. And like you say, I think the key thing on either end of the spectrum in relation to both those topics is we're basically trying to make the call that we want to look at this through evidence and keep any conversations based around evidence as opposed to assumptions, and you noted that assumptions can happen in both cases. As we talk about weight stigma today, probably the most clear assumptions that tend to come up is that body weight drives primarily from this lack of self-discipline or a lack of personal responsibility, and we will probably circle back to that in some of the discussion later on. But to maybe make things clear for people and give some definitions, because there are some terms that are often part of this conversation that you've probably heard many times, but just to make sure everyone is clear on what we're discussing, when we are talking about weight stigma, this basically refers to the devaluation and denigration of individuals that can happen in social circles because of their excess body weight. That can then lead to negative attitudes such as people labeling them as lazy or gluttonous or lacking willpower. It can lead to the development of stereotypes as well based on that. A similar but distinct term of weight bias is where we have these overt forms of weight based discrimination towards individual based on their body weight. And then this brings on to this concept of the internalization of weight bias, where a person living with obesity applies those negative weight based stereotypes to themselves, engages in self-blame, self-directed weight stigma as a result of those things. We can then go forward and think about implicit weight bias that people might have, and explicit weight bias, explicit being that overt, consciously held negative attitude towards someone with excess weight, and an implicit is more of these automatic negative attributions and stereotypes that are outside of someone's conscious awareness. So there are a number of important terms to bear in mind. And finally, before we get into the kind of nuts and bolts of this, it might be worth discussing the use of language and how that's evolved in terms of recommendations, whether it's for healthcare professionals or not, probably in this respect the most obvious is where most often people would have used the term obese person, it's Weight Stigma

recommended now that terms like person with obesity or people living with obesity is used preferentially.

ALAN FLANAGAN:

You'll also see as well within some of the kind of more I think activist stances or approaches, a kind of reclaiming of the use of the term fat, and there is an argument that that is preferable. But I think the difficulty with that is it actually has no definition and is entirely subjective to many people pejorative, not that perhaps the term obesity is not. But that term is giving us classifications that can be defined. So whatever the limits of it, it's a more, at least accurate term that has some accompanying meaning, whereas the term fat actually has no distinct definition in terms of meaning.

DANNY LENNON:

The fact that we've mentioned that much of this is seen as a problem, and has been noted as a problem because there are certain assumptions built around those living with obesity, maybe we can walk through some of that.

ALAN FLANAGAN:

This is something that has been created politically, as well as just in wider kind of and conversations. societal norms assumptions that typically arise, arise from societal norms, moralizations towards obesity, and they also play it politically as well. And you can see this in some of the discourse associated with legislative reform or approaches to obesity, and you can see some of these characteristics play out; and they typically relate to adiposity as a moral failing, as something that boils down to lack of individual personal responsibility, a lack of willpower, a lack of motivation, negative attitudes, for example, that might relate to someone being lazy or being unmotivated, assumptions that also relate to their diets, and a presumption that with that lack of motivation and lack of willpower, an individual is just eating essentially junk, hyperpalatable foods, etc., etc.

And this is what we're talking about here is very much weight bias, as against an individual living in a bigger body and how that comes back to – and the interesting thing about this, and I think this is actually a really important point, because it can be easy to frame this as an attitude that thin people have against people with obesity or higher body fat, etc. That's actually not the case and some of some of Lenny Vartanian's research has shown that anti-fat bias really exists across the full spectrum of body weights; and even in those at a higher body weight, there can still be anti-fat bias observed. And yes, you can certainly see, perhaps a greater magnitude of effect in thin people, but the reality is that anti-fat bias exists across the spectrum. It's not uniquely confined to kind of discrimination of one body size versus others, which I think is also important in terms of something that we will talk about, which is the kind of adverse psychosocial internalization effects of and negative attributions and some of those outcomes which can be quite maladaptive in individuals.

DANNY LENNON:

The way that I've been thinking about some of these assumptions that can be made around obesity, there's kind of three layers almost to it, and we've mentioned at the least two of, there's assumptions that sometimes can be made either implicitly or explicitly about those with obesity, and they can be miscategorizations. And then there's also assumptions people make about what is the cause of someone there for becoming obese. It's a choice or their personal lifestyle, this responsibility they have, etc., etc. And then there's also assumptions about, okay, what do we do about the fact that we have a high prevalence of obesity in society or what can individuals do in order to tackle this chronic disease. And there's often, it's implied at least that diet and lifestyle changes can, number one, completely reverse this, and number two, do so in all cases. But I think if you examine the literature, like, there isn't any evidence to back that up. In fact, it's the opposite. That certainly not in all cases with

any degree of obesity that a dietary and exercise or lifestyle modification is the answer to reverse those things, particularly when you look over a large number of people. But I think it's important then not to confuse that with saying, it's not important to promote healthy lifestyle behaviors such as a healthy diet and healthy amounts of activity and so on, because, number one, as we've discussed before, they can improve health regardless of weight loss; and number two, for many people, those things can work and do work and have worked in order to reduce adiposity and therefore have improvements in physical health off the back of it. But what it is to say is that they are not the solution, and I think this is kind of where we talked with Spencer about, it's important not to stigmatize other potential treatments like drugs or surgery or even not to stigmatize someone who is not going to completely reverse their obesity, but instead, we can still help to get healthier. So it's just, yeah, tackling that assumption without completely disregarding their role.

ALAN FLANAGAN:

Right. And unfortunately, that is what you see in this area, certainly in a lot of kind of narrative reviews, and vou'll see fairly inaccurate arguments put forward about the, for example, the lack of effect of adiposity on health. And as we've discussed before, we won't rehash it, but that tends to really be confined to a very specific range of BMI at which you can make that case, and it does not hold true once vou start to get to those higher levels. But I think the point within what you were saying that's really interesting from some of the interventions, and indeed kind of cross sectional observational research in this area, is that idea of the way the messaging is communicated, and how the framing of messages that are, shall we say, health gain messages, often behavior focused, can actually result in an enhancement of motivation or an engagement with the message. And what seems to be fairly consistent in some of the research that has looked at the effects of campaigns or messaging or framing a message using the word obesity or using stigmatizing imagery, and there's a number of studies that have compared, for example, exposing people to certain amount of images related to campaigns that will be considered stigmatizing and comparing it to more neutral comparators. And you can see adverse emotional reactions to the stigmatizing campaigns, but you can see that in terms of assessing outcomes like willingness to engage in motivation, they have the opposite effect.

And so, this is really important, because I'll typically see people arguing along the lines of, oh well, it's raising awareness, and that's often a kind of hand wave to campaigns even as extreme as the now infamous Cancer Research UK ad that came out a couple of years ago which kind of compared obesity to smoking in terms of cancer risk. And you'll hear people kind of defend it on the basis of, oh well, if it raises people's awareness of the risk, then it's a positive. And it's just like, but that's an assumption that, A, raising awareness works in this way, and that, B, people will act on that raised awareness. And I can't find really any evidence in the literature that would support that that approach to raising awareness and framing messages in that way has anything, at the very least, has no effect; and actually, at the worst, would be more likely to find evidence of an adverse effect. And we see this in some observational studies, but we also see it in some of the interventions, Rebecca Peel's research, for example, and they've looked at a couple of this.

So that point you make about some of these assumptions, but within that is the framing of the message and how that relates, and we've even seen – so obviously we're talking now about kind of emotional responses or psychological responses, but you can see some interventions have looked at cortisol reactivity, for example, stress responses to being shown images that would be stigmatizing versus

neutral images. And you can see effects on cortisol, you can see either a spike in people who – in some studies, you get a cortisol spike, which would suggest that they're not habitually stressed, so they will get an acute stress response, but some of the other research in people who have experienced stigma shows a blunted cortisol response. And something that's associated with chronic stress because you're not getting a kind of an acute appropriately stress response, because you're constantly living in a state of kind of HPA activation and elevated cortisol. So there is evidence of measurable physiological adverse effects of framing health messages and of using certain images to portray people with obesity and at higher body weights, and I think that has to be taken into account. Because it's not simply that people just turn away from the campaign or the message or the way that people talk about this and don't engage. It's that it has demonstrably adverse effects on psychosocial and physiological health outcomes.

DANNY LENNON:

Yeah, two really important points that you made there that I think are worth diving into. again, I think, first, highlighting essentially that clear paradox that we have that where we have people who experience weight based stigma are then more likely to avoid exercise and physical activity, more likely to engage in unhealthy dietary behaviors it seems, and be more sedentary generally, which all increases the risk of obesity as opposed to helping it. And there's much more evidence that kind of leans in that direction versus basically nothing on the other end, but like you suggest of people thinking, raising this awareness, and even if it can be seen as stigmatizing to someone will have some sort of magical motivational effect is just one that's not based on at least current evidence that we have, but rather, it's this paradoxical thing of, if you show people messaging that increases weight stigma, then you get people avoiding exercise, and actually reverting to more unhealthy types of behaviors.

ALAN FLANAGAN:

I think another interesting thing in that regard is the fact that you can have over time kind of negative attributions to oneself, so it comes back to this kind of effect of if we're giving people certain messages and framing the conversation in a certain way, both in just lay media or the press, political messaging and public health campaigning, then what we've got, as you mentioned, this public research that shows the negative effect of these internalized messages on actual behaviors, that are ultimately maladaptive. And some interesting research that I came across, experimentally looked at this, so they randomly assign participants to receive a kind of a positive social evaluation versus a negative social evaluation, and people's previous history of weight discrimination were more likely, if they received a negative social evaluation, were more likely to attribute it to their appearance and their weight.

So this kind of debilitating cycle of people then starting to assume that any sort, you know, by negative social evaluation, for example, you get criticized in a job interview or something like that, and so the perception of bias that an individual then has at a higher body weight, is one that even if there is not the kind of intent in that social evaluation to discriminate the individual, their perception is they're more likely to attribute it themselves negatively to their own body weight. And so, yeah, so at multiple levels, we can see that this way of talking about some of these issues, has very negative effects on not only an individual's internalizing of potentially maladaptive behaviors, but again, also on kind of some of the psychosocial and physiological outcomes that some researchers have looked at.

DANNY LENNON:

Yeah, and maybe we can touch on some of those, because I think they help try to answer this question of well, are there kind of physical health consequences we can clearly connect here, and that actually ties back to one of your previous points I wanted to touch on in relation to some of that literature looking at cortisol levels, for example. And recently actually, this was brought to my attention by Dr. Adrian Brown, who is a research fellow at UCL, really, really good guy, and hopefully will be on the podcast at stage soon. But we were chatting about some of this stuff, because obviously, he's published work in this area, and it kind of mentioned in terms of some of these physiological markers that with the cortisol stuff, like you mentioned, it's not necessary that you see this massive increase in average cortisol, it's that you don't see that robust diurnal variation that you would like to see with cortisol. So I mean, that's one that there's clear evidence on, but one of the really important points he was making about the current literature base is despite what we have is, we actually need more evidence and more kind of robust evidence to be able to actually determine whether there's this causal link between stigma and health, or at least to be able to demonstrate a causal link. Whereas right now we're pulling things together, and we have like the cortisol stuff, there's some stuff around I think, C-reactive protein as an example, and then there's some associational work looking at cardiometabolic risk, and I think, increased mortality, where you have these associations, but now just trying to nail that down into this direct causal link. So it's just the landscape of things where it will go from here is really interesting, given that there are so many kind of questions that have been raised.

ALAN FLANAGAN:

Yeah, and I think the kind of broad picture of traditional physiological markers, biomarkers and risk factors that we have in relation to generally, disease outcomes, that are established causal themselves, LDL cholesterol or hypertension being probably the most robustly established cardiometabolic health, elevated blood glucose as well. So you have these markers that we established links know are to adverse cardiometabolic disease outcomes, and there's some suggested observational evidence in relation to weight bias and weight stigma. One study in particular looked at what's known as allostatic load. So allostatic load is a concept – the concept itself has support. It's basically the cumulative adverse effects of multiple different systems in the body. So while we would typically say hypertension, high blood pressure, for example, that's that, whatever it is, 140 over 90 or blood glucose or LDL cholesterol and you often tend to look at them in isolation. Allostatic load combines the effects of multiple risk factors, whether it's cardiovascular, metabolic, inflammation into a kind composite score, that reflects the total burden of risk factors and markers in the body and stress that's related to stress.

So there's been certainly one study in particular, the MIDAS cohort in the US, 10year follow-up period, and it was a biomarker study, so there were objective quantifications of these biomarkers that went into creating this allostatic load, and there was a two-fold higher allostatic load in participants experiencing who scored high for baseline and long term followup discrimination. So that's a suggestive piece of evidence, but I think sometimes I see deductive steps being taken with some of the observational research to the effect, example, that it's actually the effect of stigma per se alone. That is the reason that you might see adverse health markers in a given individual with higher levels of adiposity, and that's just also not correct. We know that adipose tissue is an endocrine organ in and of itself. We know that the state of increased adiposity itself does cause elevations inflammation and other markers. So I think the most appropriate way to characterize the effects of stigma would be that it exacerbates a lot of the physiological effects of higher levels of adiposity, rather than just being entirely deterministic of all of them, which you will see people kind of put forward that argument.

So observationally you do see experiences of weight discrimination associated then with unhealthy eating behaviors, and in terms of interventions, there's a plausible reason that could explain some of that observational research in terms of the, like you mentioned before, the negative effects of internalization on behaviors. There's some of Lenny Vartanian's research again has shown decrease in selfregulation, as it relates to kind of energy intake, so decrease in self-regulation, correlating them with increased energy intake. We know that stress correlates with a kind of preferential selfdirection towards hyperpalatable foods. So with a lot of what is observed in some of the long term or even cross sectional studies, there's at least some intervention evidence that would lend a degree of support to that association. But in some areas of this broad research field, that there are gaps, so to speak, and there's gaps in every field. I don't think that should be used to hand wave off the evidence that is there.

DANNY LENNON:

Yeah, absolutely. It's a matter of trying to make sure we're clear on what exactly is happening, what is kind of that chain and sequence of events. And so, for example, even on the stuff related to increase calorie consumption, where there's a couple of studies now, and you have a few of these like acute trials, where you bring people into a lab setting and they're either shown a stigmatizing video or a neutral video, and then they look at their calorie consumption in a later meal in that period afterwards, and you can see differences in caloric consumption there or other studies do the kind of same thing with a stigmatizing message versus a kind of neutral message. And so, you have something there that is kind of giving you some degree of plausible evidence that something is going on here, but to be able to try and extrapolate from an acute lab setting like that into how this plays out into long term real world effects, and what is the exact end consequence can be difficult. So it's not that it's not useful, it is, but any of these kind of acute studies that are looking at one of these issues, or, when we, on the flip side, look at big observational studies, they all need to be kind of consolidated with these other lines of evidence, and then fill in those gaps that we still don't know the answer to, as opposed to thinking we know how this all plays out already.

ALAN FLANAGAN:

Exactly, yeah. And I think this is one area where a degree of that kind of scientific openness and inquisitiveness can be quite helpful. I think we've talked about this before because of the emotional charge in the conversation, but that's often not how the conversation plays out, unfortunately. But there is a lot that we don't know yet, and there's also sufficient evidence that we do know that warrants this being an issue that is taken seriously, not just in the context of individual practice, but at the whole level of policy and public health.

DANNY LENNON:

Yeah, and I guess, where there does seem to be virtually unanimous agreement is how weight based stigma and internalized weight bias can be particularly harmful to mental health, increasing rates of depressive symptoms, anxiety, low self-esteem, stress, etc. I think that's unanimous, and again, those things, in turn, obviously, have an impact on physical health. So it's just trying to parse all of this stuff apart and see how it all knits in together, but I think at least the psychological consequences seem to be pretty consistent from what I can tell.

ALAN FLANAGAN:

Yeah, the internalization of the stigma and bias and the experience of that seems to fairly consistently predict psychological dysregulation, outcomes like diminished selfworth, anxiety, depression are fairly consistent in the literature. There's some evidence as well of an actual impact on domains of cognitive testing, episodic memory, for example, there was a study that looked at five different domains of cognitive testing, was a US cohort and the health and retirement study, stratified

people who experienced weight discrimination versus comparing them to people who didn't and there was a two-fold higher odds of performing poorly on cognitive tests in terms of some of these outcomes, memory, attention, episodic numeric reasoning. That effect has also, in terms of cognition, has been noted in some other studies on discrimination in relation to other areas, for example, race or ethnic discrimination.

So I think the cognitive, but the adverse cognitive outcomes in terms of say anxiety, depression, and negative perception of selfworth, decreased self-regulation and emotional resilience and these factors are all really consistent and they're all debilitating outcomes in terms of their relationship with burden of disease and with general well-being. So one paper that I came across and I touched on this with you before we started recording, but I find this strange but also a tad interesting, which was everything that we're talking about here relates to the research on the perception of the person experiencing stigma and weight bias and discrimination. There's one study that I came across, it's only a pilot study and it was published last year, but essentially, it was looking at the effects of perpetrating weight stigma on kind of emotional reactions in the perpetrator. So someone expressing weight stigma to others, what's the impact on their kind of moral emotions, and what was interesting was that there was no effect on outcomes like guilt and shame.

So, people perpetrating and remorse – guilt, shame and remorse were the kind of outcomes. There was a potential negative effect on pride, so seemingly, they had less pride in themselves after perpetrating weight stigma. But I found a lack of effect on emotions, moral emotions like guilt and shame and remorse for someone perpetrating or expressing stigma about weight to be quite telling, and also a fairly depressing finding in terms of something that might explain why this conversation can sometimes

seem intractable, particularly, from certain circles. And so, yeah, the caveat obviously, look, it's a pilot study, it was very recent. But it might suggest that people who do express stigma, stigmatizing comments or otherwise about weight or engage in bias related to weight, perhaps don't actually experience any kind of remorseful reflection on their actions. So yeah, it'd be interesting to see more work done on that, but it's not a particularly pleasant finding for humanity.

DANNY LENNON:

No, it's actually fascinating though because then it obviously gives implications for how to tackle this broader population wide level of not only is it just enough to have awareness for people, but there has to be some sort of probably direct intervention, if this doesn't register with some people. And interesting, it kind of reminded me, there's a cross sectional study that I think Stuart Flint was the lead author on, 2015 paper. And in that they were looking at basically these anti-fat attitudes, and of the different demographics that they split up to see who had scored the highest in this kind of anti-fat attitude. It was highest in three groups which might actually tie into what you were saying about the lack of emotional connection. It was, number one, in males more so than females; number two, in younger people, so in the age group 18 to 25; and then third in people who exercise most frequently, so more than eight hours of exercise per week. And so, one of the actual interesting hypotheses they put forward in that paper to maybe try and explain, well, why are we seeing these groups that they were touching on how, in general, you see males skew more towards being less empathetic than females generally. And then obviously, we can maybe touch on the once you're in a fitness bubble that can maybe skew how you view this issue as well. But it's interesting to see kind of those demographics emerge from at least that paper.

ALAN FLANAGAN:

I think that says a lot perhaps about, yeah, some of where a lot of the pushback against

this tends to come from, you know, certain industries or even kind of a certain, I would say, political orientation tends to correlate, I would say, with a rejection of some of these lines of evidence, and again, a kind of reinforcement of some of the narratives we talked about at the start, related to say willpower, for example, or otherwise. We also see this play at politically, I mean, there's a fascinating paper, a couple of papers that I read in relation to the records of parliamentary debates post 2010, and the clear, exponential growth in terms of use of the word obesity and obese in parliamentary debates, and concomitant use of the term food banks. And all of it part of a very deliberate, up until COVID, but very deliberate policy to date that was trying to frame the entire issue as one of personal responsibility, individual choice, because that would then obviate the need for any political action at the political level or otherwise; it would obviate need to address anything related to the food industry, marketing the food environment or anything like that, because it would frame it all as well. That's all. there's no iustification intervening at any of that level, even though all of the evidence points to the fact that there clearly is, and we have the previous episode that we've discussed that on. So these kind of attitudes make their way into and permeate into the level of policy, so it's something that is important beyond just how, say, for example, an individual practitioner listening to this might even think about it, because it goes all the way into politics.

DANNY LENNON:

Yeah. And earlier, you mentioned, some of Rebecca Peel's work, and I know she's published on the prevalence of messaging within news media, and how they directly lead to this increased stigma and stereotyping, and most commonly, those messages are ones attributing obesity to personal responsibility, so exact same kind of narrative that you just mentioned.

ALAN FLANAGAN:

Yeah, and that played out here certainly in the UK, that would have been evidence, you know, it's the kind of right of center journalistic outlets would have very much pushed the rhetoric individual government's of responsibility. At one point, David Cameron proposed cutting welfare to people who were unemployed, if they were living with obesity, like it's barbaric that you would only, that you would have to obviously get yourself to whatever, I don't know, the proposal was, in order to be deserving of a welfare benefit if you were unemployed. And all of this is in print, I mean, the quotes that you could go back to, to 2010 from people like Cameron from George Osborne when he was Chancellor of the Exchequer, Dominic Raab, Elizabeth Truss, like, they're all on record, Boris himself honestly, the best thing that happened was him COVID, because it's completely getting changed their receptiveness to policy and things like advertising regulations and stuff are finally being proposed. Now, how that would what we're translate to talking specifically, public health messaging, and the framing of campaigns, remains to be seen. But certainly, at the level of policy, you can see distinct manifestations of this language and framing of these issues as a certain moral imperative, rather than the more complex phenomenon that...

DANNY LENNON:

Yeah, I think it's a great example, because yes, there's been this turn to focus more on tackling this issue, and maybe more receptivity to it, and as you know where it's yet to be seen, how that plays out in public health campaigns, but whilst that is the case, we also have this clear example that it beautifully illustrates just what we said about the media and the personal responsibility kind of narrative that that government has produced, that the first thing that came from when Boris was back on his feet is all the media started showing photos of him running through the park with his personal trainer, again, with this idea of, if I can do it, that'll show people the way and you can do it.

Weight Stigma

Not to mention that probably everyone can't go for a park run through Chelsea with a personal trainer.

ALAN FLANAGAN:

Right, with a personal trainer.

DANNY LENNON:

Or that that's even the solution, right? That the solution is, if you just get running and get a personal trainer, then this will solve this complex issue.

ALAN FLANAGAN:

Yeah, and I think that's important, because, I mean, we're obviously focused on waste stigma, specifically, but this feeds into the wider health landscape. There's evidence for the social stigma of people being reduced to using food banks, often working families, where their access to food banks is to provide extra food for dependent children, for example. And the framing of all of these issues in this kind of, "undeserving poor" perception that has been cultivated here politically is playing into that as well. So the effects of stigma, you know, there is research that relates, that has looked at other effects of stigma, HIV, for example, and so, although the weight stigma literature is something that is building, like, there is a fairly extensive wider literature of the effects of stigma for other either behaviors or conditions that can feed into providing us with a bolstered arguments in favor of the adverse effects of framing issues in this way.

DANNY LENNON:

Yeah, and it's what makes it so complex of how many of those factors tie in together. We've obviously talked at considerable length in previous episodes about socioeconomic factors and how that ties into health inequalities, but then there's obviously health inequalities that already exists there, there's already barriers that already exist. Then if you were to tie in things related to weight bias, you do then have more difficulties on top of that of directly increasing, say, psychological stress in groups where that is likely to be higher anyway. And then also implications for society of like even gaining employment, there's potential more

barriers because of that, and it just becomes this complex web of things that is a perfect storm of sorts.

ALAN FLANAGAN:

It's also self-defeating entirely. With the evidence that we do have, we can paint a picture of people in a bigger body experiencing the kind of negative effects of that in daily interactions in life. So although a lot of what we've mentioned today is public health messaging and campaigns or even kind of with medical appointments healthcare professionals and otherwise, these kinds of instances, people can experience literally daily bias and discrimination based on weight. So yeah, the accused or more accused instances are also important and debilitating in their own way, but this is chronic effects that people are often experiencing daily. And so, you have that, and we have this understanding of how that might translate over time with someone internalizing negative and attributing negative characteristics to themselves, internalizing some of the negative stereotyping and otherwise, and that manifesting in behaviors, and this perpetuating over time, all the while being surrounded by a wider society, a healthcare system, and billboards that are mostly putting out a message framed in a way that's exactly the opposite of what the research might suggest would be something that will be engaged in at the least, and at the worst, potentially, just reinforces and exacerbate some of these kinds of negative outcomes. And that becomes very difficult, because suddenly, you're saying, well, we have a certain amount of evidence that suggests that, at the very least, this is not effective at all. And there seems to be degree of inertia involved. I've had conversations where people have said, well, it's starting to be taken on board, but there's still a place for raising awareness, for example. It's like, what I can't find, I can absolutely see that it is starting to be taken on board, and that's a positive. And we've seen that in terms of you mentioned as well, at the BDA producing a report.

The WHO report in 2020 was quite an important step, I think overall, and there's also obviously just the published literature. So overall. that becoming recognized, particularly more so within healthcare, but there's this inertia to holding on to the "raising awareness" approach that I just can't really find any evidence that that actually has support for. So that becomes the difficult conversation then is, well, how do you actually get a shift in the way things are done, so to speak, because that's always - there's always a degree of sunk cost fallacy playing into these things, perhaps.

DANNY LENNON:

Yeah, and there's a big cost to that shift not occurring not only directly for those people currently experiencing stigma, but when you have a certain prevailing idea that's not based in evidence, this has not only implications for those people, but as we've just discussed, it has implications for future public health policies and how they're going to get shaped. It has implications for future treatment options that people will receive in healthcare, and then even what research ends up getting done and what's getting funded. So that's going to be based on our current perspective and how we view things. And so, having an accurate view of what that is, and an accurate understanding of what's going on is important, so that all those things in turn, can progress forward and hopefully come up with more solutions as opposed to leading us down a completely wrong path by being stuck in an incorrect perspective.

ALAN FLANAGAN:

Right. Exactly. And yeah, that inertia, I think is probably typical of a lot of other areas, not just nutrition or otherwise that that relate to or affect the whole population. So it's kind of like turning the Titanic with the iceberg ahead, it's not going to be something that is going to be done at short notice. And so, I think that speaks to, like you say, the importance of hopefully a research agenda going more towards some of these areas, building a more

robust evidence base overall. But certainly, I do think that there is sufficient evidence from the messaging standpoints, that might say that certainly at a broad level, there's potentially a more effective way of doing things. And at the very least, there's a way of perhaps not doing things, that seems to be clear.

DANNY LENNON:

Yeah. So maybe let's talk to kind of finish up with some steps forward from here. As you know, there's been, thankfully, a number of publications that have been relatively We've important. had that, essentially, international expert panel consensus paper published in Nature Medicine, as I was talking to you about Adrian Brown mentioned to me that in the UK, the BDA are putting together a policy document that, for the first time, is directly addressing weight stigma, and so there's a lot of beneficial things going on in that respect. If we turn our attention to public health campaigns, and as you've noted that we certainly know what doesn't work and what can be not useful, and things that are placing too much emphasis on personal responsibility, have a clear risk of promoting stigma, and are unlikely to bring about positive actual change to any meaningful degree. But then people might ask, well, do we completely stop promoting some of these goals of those typical messages. Where are we in terms of what seems like the most evidence based strategy from a public health promotion perspective?

ALAN FLANAGAN:

Yeah, in terms of the available research and trying to kind of synthesize what I think is a kind of broad conclusion from it, it does appear fairly clear that when people are exposed to various types of messaging or campaigns, indeed, some of Rebecca Peel's research has taken previously used public health campaigns, and kind of characterize them as either kind of more stigmatizing or more neutral, and looked at people's responses to these. And it seems fairly clear that messages that are perceived as positive and motivating tend to associate with a certain behavior, for example, a message to

increase fruit and vegetable consumption, that's messages that are typically well received. Interestingly, messages that are perceived as positive and her research has shown this, messages perceived as positive and increasing motivation, do not contain the word obesity or obese.

So that's, in and of itself, somewhat instructive. And certainly, it would appear that messages that are framed with an image that could be perceived as stigmatizing or language that kind of frames things in terms of personal responsibility or language that can be perceived as kind of shaming or finger pointing, so to speak, I think the Cancer Research UK has probably one of the best examples of that, best examples of the worst way to do it, not best examples of something positive. And so, that appears to be fairly consistent, as far as I can tell, vet, we still have a lot of campaigns, or, we still have a lot of messaging, and we still have a lot of rhetoric generally, that will continue to kind of use some of these devices that have the opposite and intended effect, and can be associated with actually decreased motivation and otherwise.

So I think there's sufficient, and that comes back to the whole raising awareness thing, because there can be a degree of sophistry that comes into this argument on the assumption that, like, no one is going to be told that anything is good for them, and we can't - and vou get this kind of almost like nanny state reactionary kind of your rhetoric back. And that's clearly not the case, and research has that public health campaigns, depending on the way they're phrased, do have a positive effect, can be perceived as positive in the messaging, can be perceived as motivating. So it's not like this hasn't been done, it's just not consistently done. And it very much depends on the messaging that we are. So it would say that at the broadest level, it would appear that there's sufficient evidence that should guide the manner in which these messages that are kind of behavior focused and perceived as positive can be then interpreted as motivating, and they don't involve references, for the most part, it seems to the word obesity and obese or weight, they don't involve stigmatizing images of someone who is overweight, exercising, for example, on a treadmill or stigmatizing images of food intake or assumptions put forward in an image of how an individual's diet might be relative to their body size, and this kind of thing. That all seems to just be a fail in terms of having an effect. It doesn't just "raise awareness". So it's very difficult to see a justification to continue using those strategies. One would be able, I think, to argue that to do so is simply not evidence based policy, and that there is another way of making evidence based policy based on the literature that we do have.

DANNY LENNON:

From a perspective of public health and public health promotion and policy, that's one side of the coin. The second, and we'll probably finish our main section on this, is our listener base obviously is made up of a lot of dietitians, and other healthcare nutritionists, GPs, professionals. For those as individuals at that level, where are we left with in terms of recommended steps – because, as of right now, and looking through what we know, and what we're coming to find from actual evidence, doesn't necessarily mean we have clear guidance, necessarily, in terms of exactly what are concrete steps to take – so in terms of what we've discussed here, to what people want to do as practitioners, is there any way we can kind of currently bridge that gap, or, where do you feel that we're left with that whole issue?

ALAN FLANAGAN:

Yeah, I think it depends, I mean, I think there's certainly a lack of evidence for intervention, so to speak, that could, and within the wider literature, there's generally assumptions on, for example, implicit bias training in this kind of thing. But it seems that that's a very poor, to the point of maybe even terming it an unevidence-based [non-evidence based] tool

across a range of potentially bias related outcomes. It relies on reactions in a matter of milliseconds, most of the testing, when that's extrapolated to seconds, you literally don't get an effect anymore. So I've seen very kind of strong criticism of implicit bias tools, in terms of using them and they're perceived negatively by people as well, because no one wants to be sat down and told you're biased, if they're not.

And so, that becomes slightly more difficult, but I think that there are either within various reports or kind of training programs or kind of CPD events that people can do to think about, for example, use of language, framing, health framing, message framing and stuff like that, focusing on health gains, so to speak. And I think there is a lot at the individual level that people can do to actually be conscious of, at the individual level, it's really small details, it seems in terms of not just passing comments on people's weight and being very mindful of of language and mindful conversation and the framing of anything health related. And it seems, one thing you'll see a lot from, which I think is valid is, and you'll see a lot of this kind of from the activism side, but it is a really valid I think lived experience is you'll have people who, for example, have higher BMI, and they hurt their knee, and then they go to the hospital, or they go to see a medical professional about their knee that's giving them pain, and the focus is just entirely on, wait, oh, you have pain in your knee because vou're overweight. And it's like, well, actually, I have pain in my knee because I was joking. So that's where we get into all of these assumptions, and it's just kind of an anecdotal example. But I think those are our really important examples of where our kind of, I guess, within healthcare some of these assumptions, problematic assumptions and biases can arise, so being aware of all of that.

DANNY LENNON:

Excellent. Yeah, that's a great way to summarize that.

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