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Doctor of Nursing Project


Caring for Fat Bodies: Bridging the Gap Between Intention and Practice in Primary Care

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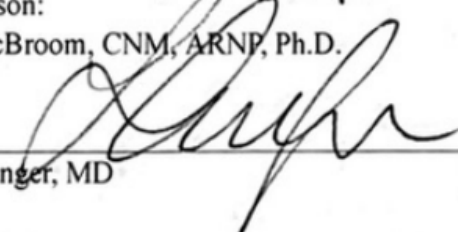
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Abstract

Healthcare providers work hard to support patients in optimizing their health. Typical care prioritizes use of the body mass index (BMI) which has widely been criticized for its ineffectiveness at measuring health, and which perpetuates a white European male body as “normal”. From individual care to public health policy, the measurement of health through BMI and thinness has created and enforced weight stigma. Literature over the past 20 years has continued to demonstrate the negative health impacts of weight stigma, not only in harming physiological, psychological, and behavioral health, but also in fact contributing to weight gain. Notably, the research also shows that weight loss is not achievable or sustainable for the vast majority of people, and that weight cycling, or losing and re-gaining weight repeatedly, which is the most common outcome of weight loss attempts, is profoundly harmful to metabolic health. Evidence-based practices which empower patients to focus on individualized measures of health rather than weight loss may provide providers an opportunity to support and improve the health of patients of all sizes.

Quick Points

- The common and widely promoted approach to health for patients in larger bodies centers around weight loss which is rooted in and contributory to anti-fat stigma.
- Higher weight/BMI has been strongly associated with illness, but the cultural narrative that it is causative to illness is not supported by the science.
- The research does not support weight loss as either effective or sustainable for the vast majority of people.
- Alternative health-promoting strategies without attention to weight or intentional weight loss are available and evidence supports their effectiveness in practice *for patients of all body sizes*.
- It is incumbent upon healthcare providers to move away from stigma and bias toward a liberatory healthcare that prioritizes eliminating systemic barriers and enhancing weight-neutral interventions.

INTRODUCTION

Patients in larger bodies are often told the key to “getting healthy” is to lose weight. Evidence continues to show that this is not only highly unlikely to be successful, but the advice may cause more harm than good. Typically, the weight loss advice is reduced to a simple explanation: obesity is harmful to health. This may not be true. Research supports an association between higher body weight and various disease states, but has not shown a causative link; rather, the etiology remains unclear.¹⁻³ Stating that higher weight is a “risk factor” for disease may be inaccurate; rather, there is a notable correlation which could be explained by a number of different things including genetics, activity level, environmental factors, stigma, weight cycling, and more.^{1,4-6} It is important to use caution when interpreting the relationship between weight and health concerns – oversimplification can have a serious impact on patient care and health outcomes. This paper examines evidence about healthcare for patients in larger bodies, including the impacts of weight stigma and provider bias, what is known about weight loss as a “health” intervention, and the alternative approaches studied for non-weight-based interventions to promote health in patients of all sizes.

Background

The terms “obesity” and “overweight” are common in healthcare. These terms are both pathologizing and stigmatizing of higher weight bodies.⁷ This medicalization is correlated with discrimination, bias, and negative attitudes toward people in larger bodies which can, in turn, have negative effects on both physical and psychological health.^{8,9} Higher weight bodies exist across the human experience. While there are stereotypes and social pressures that prioritize size and shape differently in different cultures and communities, size diversity has been present globally throughout history. Historical representations of fat bodies exist from as long as 20,000 years ago in stone-carved figurines of large-bodied women that are understood to represent fertility and womanhood.¹⁰ In the present day, as the conversation around the “obesity epidemic” has been codified into public consciousness, the narrative has often employed deeply racist foundations, implicating the “deviant” nature of blackness, specifically, as a driver of perceived negative health implications across generations.¹¹ This discourse relies on the purported sensualism or overindulgence associated with blackness, and black women in

particular, as a driver of excess, including excess weight, and does not attend to the natural variation in body size, the sociocultural differences, or perhaps most importantly, the actual health of black people.¹¹

Obesity and overweight are also terms predicated on the validity of the body mass index (BMI) as a measure of health. BMI was developed in the 19th century by a statistician to measure the “average man”, using a population of western European men to find an average.^{12,13} With this limited sample, BMI notably does not take into account body diversity including muscle mass, bone density, body composition, or natural variation in body size associated with different regional historical norms.¹⁴ A weight-focused approach to healthcare takes the BMI from a population level and applies it to individuals, also reinforcing the “personal responsibility” philosophy of weight management, which is known to represent only a very small part of the reasons for an individual’s body habitus. Commonly used language preferred over these terms include “larger bodied”, “higher weight”, “fat”, and “people of size”.

WEIGHT STIGMA

Weight stigma, or the negative attitudes, beliefs, and discriminatory behaviors directed toward individuals based on their body size, is pervasive in American culture and has been documented for many years.^{15,16} Stigma may show up in ways as seemingly innocuous as labeling a person based on their weight status or body habitus^{17,18} or in the overt stereotyping of fat people as “lazy, stupid, and worthless”.^{2(p 3)} Weight stigma impacts people of all sizes and has significant negative health consequences for those experiencing it.^{1,2,18-20} While there is a cultural narrative that suggests stigmatizing higher weight bodies may motivate a person toward weight loss, in fact, fat stigma is widely recognized as having a negative impact on psychological, physiological, and behavioral health outcomes.^{16,18,19,21} In fact, the experience of stigma that accompanies simply labeling a person as “overweight”, regardless of actual body size, is strongly associated with dysregulation in cardiovascular, inflammatory, psychological, and metabolic functioning as well as higher blood pressure and weight gain.^{1,17,22,23} Notably, weight stigma, weight discrimination, and anti-fat environments are also repeatedly shown to increase, rather than decrease, population weight.^{1,18,19}

Lest this be seen to only impact people in larger bodies, longitudinal studies in the US including both the Health and Retirement Study (13,692 older adult participants) and the Midlife in the United States (MIDUS) study (including 5,079 adults), have shown that “people who reported experiencing weight discrimination had a 60% increased risk of dying, independent of BMI”.^{18(p 2)} Another study showed that among “non-obese” persons, those who reported experiencing weight discrimination were 2.5 times more likely to fall into the obese category by the study’s four year follow-up.²¹ Further, even after adjusting for confounding factors including initial BMI, income, family education, race, and some metabolic measures, a 2014 study showed that at age 19, there was a high likelihood of having a BMI categorized as obese if at age 10 the child had been labeled as “too fat” regardless of their actual body size or weight.¹⁷

As the relationship between higher weight and poor health outcomes is investigated, it is critical to note that whether or not a higher weight status is causative of poor health outcomes, “stigma and poor treatment on the basis of fatness” absolutely is.^{2(p 5)} In fact, in a study published in 2018 by Mensinger et al., there was a marked association between higher weight status and a more negative health-related quality of life, but this was only true for those individuals who reported persistent and significant experiences of internalized weight stigma. Another study showed the same: physical health impairment was notable for those with higher BMIs who also held significant weight bias, but *not* for those with low internalized weight bias.²² Yet another study shows that perceived weight discrimination increases 10-year allostatic load risk twofold.²³

One of the ways weight stigma correlates with poor health outcomes is the relationship between stigmatizing experiences and avoidance of engagement with the healthcare system.^{15,18,19,24,25} This is most notable when looking at rates of cancer screenings. Gynecological cancers, breast cancers, and colorectal cancers are screened for less frequently among people with higher BMIs.^{15,18,25,26} This fact may be associated with a combination of healthcare avoidance and less evidence-based care offered by healthcare providers to their fat patients, which is discussed further in the Implications for Practice section.

Providers Are Not Exempt from Bias

Unfortunately, healthcare providers are not exempt from the sociocultural messaging that promotes anti-fat bias. The dominant philosophy around treatment of patients in larger bodies remains focused on weight loss. As evidence continues to demonstrate the ineffectiveness of weight loss as a long-term option for the majority of people, providers need education and strategies to provide alternate care that will meet the physiologic and psychologic needs of patients.²⁷ In fact, studies continue to show pervasive and insidious anti-fat bias on the part of healthcare providers from physicians to dieticians, nurse practitioners to radiology technologists.^{2,15,18,19,24,26}

DOES WEIGHT LOSS WORK?

Higher-weight patients are no stranger to this recommendation: “eat less and exercise more”. Advice often given freely without regard to what the patient is already doing, this recommendation rests on the popularized input/output model, wherein an individual’s weight is determined by the relationship between energy expenditure (caloric output) and food (caloric intake).^{28,29} Despite years of research demonstrating the futility of this approach, failing to show long-term weight suppression, and having no notable benefits to long-term morbidity or mortality, the advice persists. While it is tempting to attribute size to a simple formula, a person’s weight is determined by a far more complex interplay between factors: “host genes, dietary habits, lifestyle, metabolic factors, psychological issues, gut microbiota, and environmental factors”.^{30(p 1-2)} Evidence shows that, regardless of method used, after weight loss, nearly all patients gain back what they’ve lost, and up to two-thirds gain more than they had initially lost.¹ Notably, this is not limited to diet and exercise-based weight loss interventions, but weight regain is also the most common outcome to weight loss through surgical and medication interventions.³¹⁻³⁴

Consistently, research shows that weight loss by any means is most often followed by weight regain: nearly all weight is regained within five years of weight loss, and one- to two-thirds of people gain back more than they had initially lost.^{1,4,35} This leads into what Gaesser and Angadi term the Weight Loss Futile Cycle.³⁶ The Center for Body Trust outlines a similar cycle.³⁷ Rather than viewing this as an individual problem, both contextualize the cycle as a systemic problem informed by the pervasive cultural messaging prioritizing thinness and

warning of the supposed dangers of higher weight bodies. They describe that the cycle begins with a desire to change one's body, followed by planning and initiating attempts to lose weight. As people fail to reach their weight loss goals because of metabolism or life events, or decreased tolerance to rigidity and restriction, they become frustrated, increasing shame and self-blame, and leading to regaining or overshooting the initial weight. Again due to the cultural messaging, individual healthcare provider recommendations, social pressures and more, this restarts the cycle, reinforcing or reigniting the desire to change one's body.^{36,37} In the literature, this is referred to as "weight cycling" or more commonly known as "yo-yo dieting", and has been repeatedly linked to very negative health outcomes. Several studies have found that weight cycling can lead to increased risk for hypertension, high blood pressure, high cholesterol, diabetes, and heart disease.^{35,36,38-39} Weight cycling can also negatively impact psychological health, leading to decreased self-esteem, increased anxiety, and disordered eating behaviors. Additionally, weight cycling has been shown to decrease metabolic rate which can make it harder to lose weight, and easier to gain weight, in the future.⁴² The negative health outcomes associated with higher weight may in fact be related to weight cycling. This is supported by growing research showing that maintaining a steady higher weight has better health outcomes than weight cycling.^{3,17,39} Knowing that intentional weight loss inevitably leads to the metabolic, physiologic, and psychological harms associated with weight regain, serious thought must be given to the ethical responsibility of healthcare providers in recommending weight loss in this context.

ALTERNATIVE APPROACHES

Understandably, this is where many providers feel stuck. There has traditionally been limited training on alternatives to weight management in working with people in larger bodies. Fortunately, there is a large growing body of research demonstrating the efficacy of alternate approaches to caring for fat people, from conservative care to very liberatory approaches. Non-weight-based approaches have many names and have developed over the past few decades. These studies largely focus on encouraging health-promoting behaviors, irrespective of weight. One well recognized approach is called Health at Every Size® (HAES®). In a landmark study in 2011, Bacon and Aphramor reviewed the available randomized controlled trials (RCTs) that had,

to that point, assessed non-weight-based interventions on a number of health outcomes in fat women.⁴ At that point, HAES® was relatively new, so the parameters of evaluated studies included those using HAES®, “non-diet”, and “intuitive eating” models of care for the intervention groups.

More recently in 2018, another systematic review was completed of RCTs and non-randomized clinical trials using HAES® models to care for patients.²⁷ The studies evaluated here were representative of a global focus, with primary interventions in English-speaking countries. Across all studies, which reviewed patients with BMIs greater than 25 or greater than 30, results showed that non-diet interventions led to equal or better outcomes than weight-loss approaches.^{3,4,6,27} The intervention groups in nearly all studies demonstrated statistically significant improvement in each area measured. This included health-promoting behaviors (physical activity level, eating behaviors, diet quality, eating disorder pathology), physiological measures (blood pressure, body weight/BMI/hip-to-waist ratio), and psychological outcomes (self-esteem, body image, disinhibition, internal locus of control).^{4,27} The control groups demonstrated some improvement in some areas, but notably in several studies, participants did not lose weight, and other measures were inconclusive. Across all groups that investigated lipid outcomes, some improvement was seen but results were varied and thus researchers were unable to draw conclusions about the difference between HAES® and care as usual on lipid profile.^{4,27} An important finding across the research relates to participant retention: in HAES® or non-diet intervention groups, retention of participants was higher.^{3,4,6,27} Given the attrition rates of conventional weight management programs, using interventions that engage patients for sustained participation is a significant finding.

In evaluating the research on weight-based vs behavior-based health focus it is critical to attend to two significant points: first, the weight-focused research rarely has a follow-up timeline longer than a few months, or at best one to two years; and second, the weight-focused research almost exclusively measures [even temporary] weight loss as a successful outcome, without attention to other outcomes. This means if a person loses 30 pounds during the study and regains 28, they are considered a “success” as at the time the study ended they had a net loss. It also means if a person did not lose weight, but did gain an ability to walk a longer

distance, reduce their need for hypertension medication, or achieve any other non-weight-focused measure of health improvement, it would not be considered success.

IMPLICATIONS FOR PRACTICE

Care as usual is not working, and is causing more harm to higher weight people, prescribing ineffective strategies toward achieving “health” and frequently contributing to healthcare avoidance on the part of higher weight people. This paradigm perpetuates frustration on the part of both providers and patients. The research provides promising alternatives. First, we must address the structural problems that create bias. Healthcare environments that are not prepared with a variety of equipment (blood pressure cuffs in all sizes, operating tables with higher weight capacities, varieties of speculum sizes, waiting room chairs comfortable for all bodies, etc.) are inaccessible and unable to provide equitable care. As Ragen Chastain writes, “One way to think about this is ‘Did the decision maker here not know that fat patients existed, or did they just not care if fat patients got the same care as thinner ones?’ Either way it’s an absolute failure of the healthcare system, not the patient”.⁴³ Second, as healthcare providers we must shift our approach to incorporate the best current evidence. Evidence shows that intentional weight loss is not safely sustainable for the overwhelming majority of patients and promotes health-reducing stigma and weight cycling. Additionally, there are no diseases that occur exclusively in larger-bodied patients, and we have many evidence-based ways of treating and preventing disease and improving health for patients of all sizes. For example, Gaesser demonstrates that physical activity and cardiorespiratory fitness are at least as beneficial to prevention and management of Type 2 diabetes mellitus as weight loss, without the associated risks of weight cycling.⁴⁴

CONCLUSION

This review has investigated the stigmatization of higher weight bodies through application of the BMI, the fallacy of weight loss as a health-promoting intervention, and the promising research demonstrating the efficacy of alternate approaches to the dominant paradigm of weight-focused health care. Research suggests that while higher weight may be associated with poor health outcomes, the role of stigma and the unattainable cultural bias towards thinness might be more contributory to health disparities experienced by patients in

larger bodies. Research suggests that weight itself may not be causal to poor health outcomes, but rather the culture and stigma which prioritizes thin bodies and eschews fat bodies is contributory to any health disparities seen between these populations. As weight loss has been repeatedly shown to be ineffective for anything more than very short-term manipulation of body size, and the weight regain/weight cycling that nearly always follows is correlated with poor health outcomes, alternate approaches to health promotion must be considered and applied. Healthcare providers are well positioned to positively impact the health of patients of all sizes by addressing personal biases, challenging systems which center thinness, and focusing on health rather than weight status of their patients. In fact, given the profession's commitment to non-maleficence and beneficence, it is an obligation.

Table 1: A brief overview of key concepts

Correlation vs Causation	Health outcomes for fat people are at risk. Typically, this is reduced to a simple explanation: obesity is harmful to health. This may not be true. While the correlation between higher body weight and other diseases is clear, the etiology is far from it. A significant body of evidence demonstrates that: many providers feel ill-equipped to manage the care of their fat patients; weight stigma, rather than weight, may be more causal to these poor health outcomes; and an approach to care that focuses on health-promoting behavior without attention to weight may in fact produce better and more sustainable positive outcomes than the current standard of weight-loss focused care. Stating that higher weight is a “risk factor” for disease may be inaccurate; rather, there is a notable correlation which could be explained by a number of different things including genetics, activity level, environmental factors, stigma, weight cycling, and more. It is important to use caution when interpreting the relationship between weight and health concerns – oversimplification can have a serious impact on patient care and health outcomes. ^{2,5,27,45}
The importance of language	The terms “obesity” and “overweight” are common in healthcare but are widely understood to be pathologizing and stigmatizing of fat bodies (fat being used here as a neutral descriptor). This medicalization is correlated with discrimination, bias, and negative attitudes towards people in larger bodies. This can, in turn, have negative effects on both physical and psychological health. Obesity and overweight are also terms predicated on the validity of the body mass index (BMI) as a measure of health. BMI does not take into account body diversity including muscle mass, bone density, and body composition, and that a weight/BMI-focused approach to healthcare reinforces the “personal responsibility” of weight, which is known to represent only a very small part of the reasons for an individual’s body habitus. Commonly used language preferred over these terms include “larger bodied”, “higher weight”, “fat”, and “people of size”. ^{17,18,46,47}
BMI is not only a poor measure of health, but has deeply racist origins and implications	The body mass index, or BMI, has deeply racist origins and implications that have had a lasting impact on how we think about health and body weight. The formula for BMI was developed in the 19th century by Belgian statistician Adolphe Quetelet, who was interested in measuring the "average man." Quetelet's ideas were rooted in the eugenics movement, which promoted the idea that certain races were biologically superior to others. Quetelet's BMI formula was later adopted by the insurance industry as a way to determine risk and set premiums, further entrenching the idea that certain bodies were more valuable than others. Today, the use of BMI as a measure of health is highly controversial, as it ignores the complexity of individual bodies and health and reinforces harmful stereotypes about weight and race. The medical establishment must confront the deeply racist origins and implications of the BMI and work towards more inclusive and equitable measures of health. ^{12,14,48,49,50}
Diets don’t work	There is abundant evidence that intentional weight loss (IWL) is typically not effective for the majority of the population in achieving long-term weight loss. While some people may experience short-term weight loss, studies consistently show that the vast majority (up to 95%) regain the weight they

	lost, with many (up to 66%) gaining back more weight than they'd lost. While some suggest that this refers only to "fad diets" and that "lifestyle modifications" or weight loss drugs/surgeries are more sustainable IWL strategies, no strategy has demonstrated consistently efficacious or sustainable weight change for any but a small number of people. There is simply no way to achieve negative energy balance for a sustained period of time, and even if one does, weight suppression does not continue. ^{4,35,51}
Weight cycling is bad	Weight cycling, also known as yo-yo dieting, has been linked to a variety of negative health outcomes. Some studies have found that weight cycling can lead to increased risk for hypertension, high blood pressure, high cholesterol, diabetes, and heart disease. Weight cycling can also negatively impact psychological health, leading to decreased self-esteem, increased anxiety, and disordered eating behaviors. Additionally, weight cycling has been shown to decrease metabolic rate, which can make it harder to lose weight in the future and easier to gain weight. We should be suspicious that the negative health outcomes associated with higher weight may in fact be related to weight cycling, as there is growing research showing that maintaining a steady higher weight has better health outcomes than weight cycling. Knowing that sustaining weight loss by any means is unlikely (at best) for the majority of the population, weight cycling is an almost inevitable consequence of intentional weight loss. Recommending weight loss in this context may then be unethical. ^{35,38-41}
Weight stigma is dangerous	Weight stigma, or the negative attitudes and beliefs about individuals based on their body size, has serious health consequences. While social pressure is often posited as a useful tool to "support" individuals in prioritizing weight loss with the end goal of improving population health, there is growing research showing that in fact, "weight stigma can trigger physiological and behavioral changes linked to poor metabolic health and increased weight gain". Experiencing weight stigma has been associated with increased risk of depression and anxiety, risk of disordered eating and development of eating disorders, higher cortisol levels and lower self-regulation, and lower levels of physical activity. Notably, weight stigma has also been demonstrated to lead to lower quality of healthcare for people currently in larger bodies. ^{15,16,18,52-56}

Table 2: Annotated Resource List

Membership Organizations		
	Who we are	What we offer
Association for Size Diversity and Health ASDAH	“The Association for Size Diversity and Health (ASDAH) is a non-profit organization with an international membership started in 2003. Our members and leaders are committed to the Health At Every Size® (HAES) principles... ASDAH partners with service providers, educators, and advocates to dismantle weight-centered health policies and practices, with a focus on people who live with multiple forms of oppression.”	Education (blog, conference, trainings, HAES curriculum), advocacy (abolish the BMI coalition), and connection (provider directory, collaboration with colleagues)
HAES*	“The Health At Every Size® movement is a continuously evolving alternative to the weight-centered approach to treating clients and patients of all sizes. It is also a movement working to promote size acceptance, to end weight discrimination and stigma, and to lessen the cultural obsession with weight loss and thinness.”	Principles: Weight inclusivity, health enhancement, eating for well-being, respectful care, life-enhancing movement
National Association to Advance Fat Acceptance NAAFA	The National Association to Advance Fat Acceptance (NAAFA) is a non-profit, all volunteer, fat rights organization dedicated to protecting the rights and improving the quality of life for fat people.	Brochures and toolkits: Guidelines for Healthcare Providers with Fat Clients as well as guides for fitness professionals, nutritionists/RDs, therapists; child advocacy toolkit Fact sheets (bullying, body weight as proxy for health). Fat death planning resources
Medical Students for Size Inclusivity	“Founded in April 2022 on the principles of respect, equity, and inclusion, we believe all people, regardless of their weight, body shape, and size, have the right to pursue health, however that may look for each individual.”	Advocate for curriculum reform in medical education; Community education through social media; student-led research; Policy work; networking and community
Provider learning resources		
The Fat Doctor By Dr. Asher Laramie	offers web-based trainings for professionals, a podcast, and patient training on self advocacy	NoWeigh https://www.noweigh.org/ “for professionals” a free Q&A style masterclass in weight-inclusive

		healthcare, walking through the history of the BMI, weight stigma, and more. A series of 1.5hr webinars “The Weighting Room” diving into a diagnosis from a weight-inclusive perspective
Weight and Healthcare substack by Regan Chastain	A newsletter examining weight science, weight stigma, and what evidence, ethics, and lived experience teach us about best healthcare and public health practices for higher weight people. Created by Ragen Chastain, a professional speaker and writer, researcher, co-author of the HAES Health Sheets, multi-certified health and fitness professional and queer, fat, woman (she/her)	Current, up-to-date responses to issues in the life and care of people in larger bodies.
Health Not Diets by Fiona Willer AdvAPD, PhD	The mission of Health, Not Diets is to create a better world for people of all sizes by providing high quality training in size inclusive, weight-neutral approaches for health professionals.	Podcasts, webinars, trainings and resource lists
Center for Body Trust	“Dismantle systemic weight stigma within yourself and the world around you.”	Online and in person training for professionals and individuals.
Patient education		
HAES Health Sheet Library	This site has a list of disease-specific health sheets with basic information about each condition. Topics include: What is it? What causes it? How is it diagnosed? Fatphobia and Body Weight in Diagnosis and Treatment. Treatment options.	Current conditions: Heart Disease, HTN, high cholesterol, hyperthyroidism, hypothyroidism/Hashimoto’s, Joint pain, joint replacement, NAFLD, OSA, OA, PCOS, T2DM
Fat Body Care (working document)	This is a crowdsourced list of self-care tips for fat folks. Many fat folks don't have community to share the body needs they encounter. Check here for some practical resources to share.	Examples of topics include: Skin care (intertrigo, “chub rub”, hidradenitis suppurativa), toilet and menstrual hygiene, plantar fasciitis, sex, and movement
Weight Inclusive Nutrition handouts	Created by Meghan Cichy, RDN and health justice advocate. Condition-specific resource in plain language covering an explanation of the condition/disease, gentle nutrition tips, and other recommendations for care. Each page includes information about caring for overall health. Very accessible language, available in English and Spanish.	Over 20 topics including iron deficiency anemia, NAFLD, PCOS, Celiac Disease, Diabetes, Migraines, and Sports Nutrition
Podcasts		

Maintenance Phase	“Weight loss and wellness, debunked and decoded” biweekly podcast addressing the data science behind wellness culture
Books	
Author	Title
Lindo Bacon, PhD	Health at Every Size: The Surprising Truth about your Weight
Jennifer L. Gaudiani, MD, CEDS, FAED	Sick Enough: A Guide to the Medical Complications of Eating Disorders
Aubrey Gordon	What We Don't Talk About When We Talk About Fat
Aubrey Gordon	You Just Need to Lose Weight and 19 Other Myths About Fat People
Da'Shaun L. Harrison	Belly of the Beast: The Politics of Anti-Fatness as Anti-Blackness
Edited by Esther Rothblum and Sondra Solovay	The Fat Studies Reader
Abigail C. Saguy	What's Wrong With Fat?
Sabrina Strings, PhD	Fearing the Black Body: The racial origins of fat phobia
Sonya Renee Taylor	The Body is Not an Apology
Jessica Wilson, MS, RD	It's Always Been Ours: Rewriting the Story of Black Women's Bodies

Table 3: Scenarios you may encounter

<p>My patient came in requesting IWL/meds</p> <p>A patient comes in requesting ozempic for weight loss. (Or bariatric surgery. Or diet advice for weight loss.) You've read the research, you know that IWL works for an almost negligible portion of the population in the long term and attempts at IWL most often have significant physiologic and psychological complications. How do you navigate this conversation with a patient?</p> <ul style="list-style-type: none"> • Approach with curiosity. This is a great place to use Motivational Interviewing. Consider questions like: "What do you know about ozempic?" "What isn't working for you right now that you are hoping to change?" "What would be different if your body was smaller?" • Establish/re-establish your intention: emphasize that you are committed to your patient's health and well-being and share that your recommendations are based on the current evidence and your overall understanding of health. • Ask permission to share some more. Explain the limitations of IWL, including research about the low success rate and the potential negative impact on long-term health outcomes. Reiterate that weight is not the most meaningful marker of health and some of the other measures you look to as indicators of well-being. • Discuss risks/benefits of the IWL method they are requesting. You may include the mechanism of action for ozempic in managing diabetes, the nature of ozempic as a weight loss medication, and the likely life-long commitment to this medication to maintain any weight loss. Include information about side effects. • Introduce a holistic approach. This may include some Health at Every Size principles including increasing health enhancement, eating for well-being, and life-enhancing movement. • Provide resources and support. Offer education materials, book recommendations, and referrals to other care providers who may support their health – dietitians, therapists, even peer support. • Remember – all the evidence in the world doesn't make the world a safe or comfortable place for people in larger bodies. Knowing the risks and long term health consequences of IWL won't help a person fit comfortably in a chair at the restaurant, avoid being mocked and tormented walking down the street, or offer affordable clothes designed to fit their body.
<p>My patient needs access to specialty care:</p> <p><i>But they have BMI limits</i></p> <ul style="list-style-type: none"> • This is a consistently reported barrier for primary care providers seeking specialty care for their patients. Whether it's for a necessary orthopedic surgery, gender affirming surgery, or any of many other procedures, finding providers who will operate or even work with patients in larger bodies can be a real challenge. • Is there anyone in your own clinic who can offer some advocacy? Sometimes a social worker, care management nurse, or navigator can help advocate for a patient. • Read up! There are several great resources to support you in these conversations with colleagues. Regan Chastain has a three-part series on this topic part 1 part 2 part 3 and Dr. Louise Metz has written a great article about osteoarthritis, weight-neutral care options, and orthopedic surgery.
<p><i>But they may cause harm/give conflicting advice</i></p> <p>You've worked so hard with your patient navigating their past trauma with the healthcare system – overcoming years of being told to restrict food, or having necessary care withheld until their body</p>

changes, or avoidance of healthcare at all. You've got a good thing going, and they're engaged in their healthcare. Now they are going to see another provider. Whether for an acute concern, going to a specialist, or for something else entirely, you understandably want that provider's care to be trauma-informed and weight-inclusive.

- You have a few options. First, there are several resources for identifying colleagues aligned with similar weight-inclusive philosophies of care. [Mary Lambert](#) has a resource listing, as well as the re-released [ASDAH](#) listing and the growing network of [Body Trust Providers](#). There are also Facebook groups like [this one](#) which can be helpful in seeking recommendations. Many states and professions have their own weight inclusive Facebook groups to network, refer, and seek collegial support.
- Prep your patients. "Your weight is not a problem. You may encounter other providers who have a different philosophy of care. If you get information from them that is different from our plan, please let me know. I would be happy to talk with you about how to fit their advice into the care plan we have developed."
- Provide tangible resources like this [Don't Weigh Me card](#) (available in English, Spanish, French, and a special version for parents) which helps patients communicate with their providers about their need for weight-neutral care. This may also be a great time to introduce these condition-specific health information sheets to provide some context and anticipatory guidance in preparation for these visits. Two great options can be found [here](#) and [here](#)

How to address weight loss using informed consent

What about situations where you are providing care for someone who is seeking intentional weight loss? Perhaps they've come to you after bariatric surgery or require medically necessary procedures and their best option is to pursue weight loss to meet a BMI requirement to access this care.

- Even given everything we know about the risks of IWL, we *do* know how to make bodies smaller (in the short term). In order to ethically support patients in efforts to lose weight, we do the same thing as for all care: a thoughtful process of informed consent.
- Be sure to educate a patient about health and weight including weight cycling. Many patients have been led to believe the myth that regaining weight after losing it is a personal failing. However, the science is abundantly clear that it is not.
- You can also refer them to some great educational opportunities to dive in more, including [this course](#) from the Center for Body Trust, [this article](#) from the Huffington Post, or [this podcast](#) from Maintenance Phase.
- Make a plan. Weight loss can be seductive. People are often praised for making their bodies smaller without regard to the mechanism, the health, or the sustainability of it. Discuss how you and your patient will know when the weight loss is no longer safe. Our "stop points" may be signaled by a too-low blood pressure, lab markers of under-nourishment, or recognizing disordered eating behaviors. (Remember the behaviors we often applaud in fat people are the same ones we worry about or admonish in thin people – more about this [here](#) and [here](#).)
- Consider what is and is not attainable. If a patient is required to get to a BMI of under 30 in order to access necessary surgery and their starting BMI is over 50, even as a short-term measure to access care, this weight loss may be unattainable and cause more metabolic harm than good.

My practice wants me to follow the new AAP guidelines for weight management in children

The American Academy of Pediatrics (AAP) released Clinical Practice Guidelines for the Evaluation and Treatment of Children and Adolescents with Obesity in January 2023. These guidelines dramatically

change the recommendations for caring for growing children who are in larger bodies and have been widely criticized since their introduction.

- First, read up on the criticisms: Creating Peace with Food has created a [resource guide](#) for understanding and navigating these guidelines. Read up on other perspectives [in the New York Times](#), [on National Public Radio](#) and [in the Weight and Healthcare Substack](#).
- Look into some of the resources available on children and eating. [Kids Eat in Color](#) is a great resource and has an excellent (and colorful) Instagram presence for bite-sized information. The [Ellyn Satter Institute](#) has additional resources including a webinar addressing AAP guidelines.

I need to talk with my patient about weight. What do I say?

First, consider why. Are you trying to establish yourself as a weight-neutral provider to a new patient who has experienced weight-based care harm in the past? Are you trying to meet an insurance directive about making recommendations for diet and exercise? Is it part of your standard practice and you don't yet have an alternative plan? Is this a well-child check and you want to discuss growth and development? Your purpose can make a big difference in the framing of the conversation.

- Most patients, especially those in larger bodies, expect their healthcare providers to have an opinion about their weight. As we know, if we don't mention something our patients are worried about, they may very well leave continuing to worry. In this case, you might consider saying, "Is it okay if I share some of my thoughts about weight? I know a lot of healthcare is really interested in patient weights. From what I know about the research, weight is not a very useful measure of health and doesn't add a lot to our care plan. I do not plan to talk about your weight with you unless there is a very specific reason – something like needing anesthesia or another medication that is dosed based on weight, or if you are changing weight rapidly with or without trying because that could signify something else going on. If you have any concerns about your weight, or if you do want to discuss it, let me know. Otherwise we will focus on other things like lab work, blood pressure, life-enhancing movement, and eating for well-being to optimize your health."
- If insurance or your healthcare system requires that patients are weighed, first – find out if that is true. Often weight is a convenient and easy metric to gather but is not explicitly required. Consider ways you can advocate for patients by changing the standard to weigh them on the way in. At the very least consider harm reduction – not weighing in a public area, offering blind weights, or asking permission before gathering weights from patients.
- For a well-child check, the goal is to ensure our young patients are getting everything they need to grow their bodies, brains, and spirits. Reviewing growth charts can offer some interesting information on whether their growth is consistent along their trajectory. That said, the advice we give is generally the same whether a child is growing faster, slower, or staying along the same trajectory: encourage lots of variety of foods, eating meals together as a family when possible, and getting outside and play with your children. You may also consider connecting the family with a (weight-inclusive) dietician to add support. See the resources above for more information on child eating/feeding.

I just feel stuck. I don't know how to treat this problem without focusing on weight. I am unprepared for this!

First, thank you for caring. You're right. Most of us were very underprepared by our education to care for patients in larger bodies in a way that is liberatory and trauma informed, and in fact the evidence to support thoughtful care remains lacking. You're in the right place.

- You DO know how to care for this patient. The basic premise: what would you do for this condition/problem/disease for a patient in a smaller body? Do that.

- Remember: as weight loss isn't sustainable past a few years for the majority of people, and as the consequences of weight cycling are consistently shown to be harmful to health, taking intentional weight loss off the table as an intervention is not only logical, but the ethical choice.
- Keep learning. Check out webinars. Read articles. Get lost in a great book. Seek out mentorship from experienced weight-inclusive providers. Every patient interaction makes a difference.

REFERENCES

1. NAAFA. 2020 Guidelines for Healthcare Providers. National Association to Advance Fat Acceptance. Published 2020. Accessed February 24, 2022. <https://static1.squarespace.com/static/5e7be2c55ceb261b71eadde2/t/605d0b09af80014b16bbb2cd/1616710410284/2020+Guidelines+for+Healthcare+Providers.pdf?fbclid=IwAR14elyC0y5tyJZymPAlmYoWYV0hQKhTUkBz00QYdoHtiF5UeLNk-71tnUA>
2. Otis H. Moving Beyond “Obesity”: Improving Healthcare Professionals’ Communication to Reduce Fat Stigma. *Colorado State University*. Published online January 1, 2019. Accessed February 24, 2022. https://www.academia.edu/43732842/Moving_Beyond_Obesity_Improving_Healthcare_Professionals_Communication_to_Reduce_Fat_Stigma
3. Tylka TL, Annunziato RA, Burgard D, et al. The Weight-Inclusive versus Weight-Normative Approach to Health: Evaluating the Evidence for Prioritizing Well-Being over Weight Loss. *J Obes*. 2014;2014:983495. doi:[10.1155/2014/983495](https://doi.org/10.1155/2014/983495)
4. Bacon L, Aphramor L. Weight Science: Evaluating the Evidence for a Paradigm Shift. *Nutr J*. 2011;10:9. doi:[10.1186/1475-2891-10-9](https://doi.org/10.1186/1475-2891-10-9)
5. Campos P, Saguy A, Ernsberger P, Oliver E, Gaesser G. The epidemiology of overweight and obesity: public health crisis or moral panic? *International Journal of Epidemiology*. 2006;35(1):55-60. doi:[10.1093/ije/dyi254](https://doi.org/10.1093/ije/dyi254)
6. Dugmore JA, Winten CG, Niven HE, Bauer J. Effects of weight-neutral approaches compared with traditional weight-loss approaches on behavioral, physical, and psychological health outcomes: a systematic review and meta-analysis. *Nutr Rev*. 2020;78(1):39-55. doi:[10.1093/nutrit/nuz020](https://doi.org/10.1093/nutrit/nuz020)
7. Alland J, Bruene J. Is Obesity Really A Disease? (with Ragen Chastain) - Your Doctor Friends. Accessed June 7, 2023. <https://www.yourdoctorfriendspodcast.com/episode/is-obesity-really-a-disease-with-ragen-chastain>
8. Stanford FC. Addressing weight bias in medicine. Harvard Health. Published April 3, 2019. Accessed May 30, 2023. <https://www.health.harvard.edu/blog/addressing-weight-bias-in-medicine-2019040316319>

9. Villines Z. Obesity discrimination in healthcare. *Medical News Today*. Published July 26, 2021. Accessed May 30, 2023. <https://www.medicalnewstoday.com/articles/obesity-discrimination-in-healthcare>
10. Eknoyan G. A History of Obesity, or How What Was Good Became Ugly and Then Bad. *Advances in Chronic Kidney Disease*. 2006;13(4):421-427. doi:[10.1053/j.ackd.2006.07.002](https://doi.org/10.1053/j.ackd.2006.07.002)
11. Strings S. Obese Black Women as “Social Dead Weight”: Reinventing the “Diseased Black Woman.” *Signs: Journal of Women in Culture and Society*. 2015;41(1):107-130. doi:[10.1086/681773](https://doi.org/10.1086/681773)
12. Blackburn H, Jacobs D. Commentary: Origins and evolution of body mass index (BMI): continuing saga. *International Journal of Epidemiology*. 2014;43(3):665-669. doi:[10.1093/ije/dyu061](https://doi.org/10.1093/ije/dyu061)
13. Eknoyan G. Adolphe Quetelet (1796 1874) the average man and indices of obesity. *Nephrology Dialysis Transplantation*. 2007;23(1):47-51. doi:[10.1093/ndt/gfm517](https://doi.org/10.1093/ndt/gfm517)
14. Byrne C. The BMI Is Racist And Useless. Here’s How To Measure Health Instead. *HuffPost*. Published May 19, 2022. Accessed April 28, 2022. <https://www.huffpost.com/entry/bmi-scale-racist-health-15f15a8a8c5b6d14c336a43b0>
15. Mensinger JL, Tylka TL, Calamari ME. Mechanisms underlying weight status and healthcare avoidance in women: A study of weight stigma, body-related shame and guilt, and healthcare stress. *Body Image*. 2018;25:139-147. doi:[10.1016/j.bodyim.2018.03.001](https://doi.org/10.1016/j.bodyim.2018.03.001)
16. Vartanian LR, Porter AM. Weight stigma and eating behavior: A review of the literature. *Appetite*. 2016;102:3-14. doi:[10.1016/j.appet.2016.01.034](https://doi.org/10.1016/j.appet.2016.01.034)
17. Hunger JM, Tomiyama AJ. Weight Labeling and Obesity: A Longitudinal Study of Girls Aged 10 to 19 Years. *JAMA Pediatrics*. 2014;168(6):579-580. doi:[10.1001/jamapediatrics.2014.122](https://doi.org/10.1001/jamapediatrics.2014.122)
18. Tomiyama AJ, Carr D, Granberg EM, et al. How and why weight stigma drives the obesity ‘epidemic’ and harms health. *BMC Med*. 2018;16:123. doi:[10.1186/s12916-018-1116-5](https://doi.org/10.1186/s12916-018-1116-5)
19. Ferrante JM, Seaman K, Bator A, et al. Impact of perceived weight stigma among underserved women on doctor–patient relationships. *Obes Sci Pract*. 2016;2(2):128-135. doi:[10.1002/osp4.40](https://doi.org/10.1002/osp4.40)

20. Jackson SE, Beeken RJ, Wardle J. Perceived weight discrimination and changes in weight, waist circumference, and weight status. *Obesity (Silver Spring)*. 2014;22(12):2485-2488. doi:[10.1002/oby.20891](https://doi.org/10.1002/oby.20891)
21. Sutin AR, Terracciano A. Perceived Weight Discrimination and Obesity. *PLoS One*. 2013;8(7):e70048. doi:[10.1371/journal.pone.0070048](https://doi.org/10.1371/journal.pone.0070048)
22. Latner JD, Barile JP, Durso LE, O'Brien KS. Weight and health-related quality of life: The moderating role of weight discrimination and internalized weight bias. *Eating Behaviors*. 2014;15(4):586-590. doi:[10.1016/j.eatbeh.2014.08.014](https://doi.org/10.1016/j.eatbeh.2014.08.014)
23. Vadiveloo M, Mattei J. Perceived Weight Discrimination and 10-Year Risk of Allostatic Load Among US Adults. *Annals of Behavioral Medicine*. 2017;51(1):94-104. doi:[10.1007/s12160-016-9831-7](https://doi.org/10.1007/s12160-016-9831-7)
24. George TP, DeCristofaro C, Murphy PF. Unconscious Weight Bias Among Nursing Students: A Descriptive Study. *Healthcare*. 2019;7(3):106. doi:[10.3390/healthcare7030106](https://doi.org/10.3390/healthcare7030106)
25. Lee JA, Pausé CJ. Stigma in Practice: Barriers to Health for Fat Women. *Front Psychol*. 2016;7:2063. doi:[10.3389/fpsyg.2016.02063](https://doi.org/10.3389/fpsyg.2016.02063)
26. Sabin JA, Marini M, Nosek BA. Implicit and Explicit Anti-Fat Bias among a Large Sample of Medical Doctors by BMI, Race/Ethnicity and Gender. *PLOS ONE*. 2012;7(11):e48448. doi:[10.1371/journal.pone.0048448](https://doi.org/10.1371/journal.pone.0048448)
27. Ulian MD, Aburad L, da Silva Oliveira MS, et al. Effects of health at every size® interventions on health-related outcomes of people with overweight and obesity: a systematic review: A systematic review on HAES® interventions. *Obesity Reviews*. 2018;19(12):1659-1666. doi:[10.1111/obr.12749](https://doi.org/10.1111/obr.12749)
28. Chastain R. Doctors Must Stop Telling Higher-Weight Patients to “Eat Less and Exercise More.” *Weight and Healthcare*. Published September 28, 2022. Accessed May 28, 2023. <https://weightandhealthcare.substack.com/p/doctors-must-stop-telling-higher>
29. Howell S, Kones R. “Calories in, calories out” and macronutrient intake: the hope, hype, and science of calories. *Am J Physiol Endocrinol Metab*. 2017;313(5):E608-E612. doi:[10.1152/ajpendo.00156.2017](https://doi.org/10.1152/ajpendo.00156.2017)

30. Sherf-Dagan S, Kessler Y, Mardy-Tilbor L, et al. The effect of an education module to reduce weight bias among medical centers employees: A randomized controlled trial. *Obes Facts*. Published online January 21, 2022. doi:[10.1159/000521856](https://doi.org/10.1159/000521856)
31. El Ansari W, Elhag W. Weight Regain and Insufficient Weight Loss After Bariatric Surgery: Definitions, Prevalence, Mechanisms, Predictors, Prevention and Management Strategies, and Knowledge Gaps—a Scoping Review. *Obes Surg*. 2021;31(4):1755-1766. doi:[10.1007/s11695-020-05160-5](https://doi.org/10.1007/s11695-020-05160-5)
32. Lauti M, Kularatna M, Hill AG, MacCormick AD. Weight Regain Following Sleeve Gastrectomy—a Systematic Review. *Obes Surg*. 2016;26(6):1326-1334. doi:[10.1007/s11695-016-2152-x](https://doi.org/10.1007/s11695-016-2152-x)
33. Tolvanen L, Christenson A, Surkan PJ, Lagerros YT. Patients’ Experiences of Weight Regain After Bariatric Surgery. *OBES SURG*. 2022;32(5):1498-1507. doi:[10.1007/s11695-022-05908-1](https://doi.org/10.1007/s11695-022-05908-1)
34. Wilding JPH, Batterham RL, Davies M, et al. Weight regain and cardiometabolic effects after withdrawal of semaglutide: The STEP 1 trial extension. *Diabetes Obes Metab*. 2022;24(8):1553-1564. doi:[10.1111/dom.14725](https://doi.org/10.1111/dom.14725)
35. Mann T, Tomiyama AJ, Westling E, Lew AM, Samuels B, Chatman J. Medicare’s search for effective obesity treatments: Diets are not the answer. *American Psychologist*. 2007;62(3):220-233. doi:[10.1037/0003-066X.62.3.220](https://doi.org/10.1037/0003-066X.62.3.220)
36. Gaesser GA, Angadi SS. Obesity treatment: Weight loss versus increasing fitness and physical activity for reducing health risks. *iScience*. 2021;24(10). doi:[10.1016/j.isci.2021.102995](https://doi.org/10.1016/j.isci.2021.102995)
37. Kinavey H, Sturtevant D. An Exploration of Body Trust. Center for Body Trust. Published 2013. Accessed May 24, 2023. <https://static1.squarespace.com/static/59e3bb0cf9a61e47c353ef02/t/6345701b6137d02f3bdaf466/1665495074001/Body+Trust+Workbook.pdf>
38. Dulloo A, Jacquet J, Montani JP. Pathways from weight fluctuations to metabolic diseases: focus on maladaptive thermogenesis during catch-up fat. *Int J Obes*. 2002;26(S2):S46-S57. doi:[10.1038/sj.ijo.0802127](https://doi.org/10.1038/sj.ijo.0802127)

39. Montani JP, Schutz Y, Dulloo AG. Dieting and weight cycling as risk factors for cardiometabolic diseases: who is really at risk?: Weight cycling and cardiometabolic risks. *Obes Rev.* 2015;16:7-18. doi:[10.1111/obr.12251](https://doi.org/10.1111/obr.12251)
40. Lissner L, Odell PM, D'Agostino RB, et al. Variability of Body Weight and Health Outcomes in the Framingham Population. *N Engl J Med.* 1991;324(26):1839-1844. doi:[10.1056/NEJM199106273242602](https://doi.org/10.1056/NEJM199106273242602)
41. Mason AE, Epel ES, Kristeller J, et al. Effects of a mindfulness-based intervention on mindful eating, sweets consumption, and fasting glucose levels in obese adults: data from the SHINE randomized controlled trial. *J Behav Med.* 2016;39(2):201-213. doi:[10.1007/s10865-015-9692-8](https://doi.org/10.1007/s10865-015-9692-8)
42. Rhee EJ. Weight Cycling and Its Cardiometabolic Impact. *J Obes Metab Syndr.* 2017;26(4):237-242. doi:[10.7570/jomes.2017.26.4.237](https://doi.org/10.7570/jomes.2017.26.4.237)
43. Chastain R. A First Step to Solving Weight Stigma in Healthcare Interactions. Weight and Healthcare. Published April 5, 2023. Accessed May 28, 2023. <https://weightandhealthcare.substack.com/p/a-first-step-to-solving-weight-stigma>
44. Gaesser GA. Type 2 Diabetes Incidence and Mortality: Associations with Physical Activity, Fitness, Weight Loss, and Weight Cycling. *RCM.* 2022;23(11):364. doi:[10.31083/j.rcm2311364](https://doi.org/10.31083/j.rcm2311364)
45. Wind K. Why I no longer prescribe weight loss, calculate BMI, or use the term “obesity.” This Changed My Practice. Published May 3, 2022. Accessed May 5, 2022. <https://med-fom-tcmp.sites.olt.ubc.ca/why-i-no-longer-prescribe-weight-loss/>
46. Puhl R, Peterson JL, Luedicke J. Motivating or stigmatizing? Public perceptions of weight-related language used by health providers. *Int J Obes.* 2013;37(4):612-619. doi:[10.1038/ijo.2012.110](https://doi.org/10.1038/ijo.2012.110)
47. Park J, Saha S, Chee B, Taylor J, Beach MC. Physician Use of Stigmatizing Language in Patient Medical Records. *JAMA Network Open.* 2021;4(7):e2117052. doi:[10.1001/jamanetworkopen.2021.17052](https://doi.org/10.1001/jamanetworkopen.2021.17052)
48. Strings S. *Fearing the Black Body: The Racial Origins of Fatphobia.* New York University Press; 2019. Accessed April 5, 2022. <https://www.sabrinastrings.com/books>

49. Larmie A. #noweigh. #NoWeigh. Published 2022. Accessed February 24, 2022.
<https://www.noweigh.org/>
50. Gordon A, Hobbes M. The Body Mass Index - Maintenance Phase. Accessed March 29, 2022.
<https://maintenancephase.buzzsprout.com/1411126/8963468-the-body-mass-index>
51. Wing RR, Phelan S. Long-term weight loss maintenance. *The American Journal of Clinical Nutrition*. 2005;82(1):222S-225S. doi:[10.1093/ajcn/82.1.222S](https://doi.org/10.1093/ajcn/82.1.222S)
52. Puhl RM, Heuer CA. The Stigma of Obesity: A Review and Update. *Obesity*. 2009;17(5):941-964. doi:[10.1038/oby.2008.636](https://doi.org/10.1038/oby.2008.636)
53. Vartanian LR, Trewartha T, Vanman EJ. Disgust predicts prejudice and discrimination toward individuals with obesity. *Journal of Applied Social Psychology*. 2016;46(6):369-375. doi:[10.1111/jasp.12370](https://doi.org/10.1111/jasp.12370)
54. Puhl R, Brownell KD. Bias, Discrimination, and Obesity. *Obesity Research*. 2001;9(12):788-805. doi:[10.1038/oby.2001.108](https://doi.org/10.1038/oby.2001.108)
55. Pearl RL, Hopkins CM. Bias, Stigma, and Social Consequences of Obesity. In: Kopelman PG, Caterson ID, Dietz WH, Armstrong S, Sweeting AN, Wilding JPH, eds. *Clinical Obesity in Adults and Children*. 1st ed. Wiley; 2022:58-71. doi:[10.1002/9781119695257.ch5](https://doi.org/10.1002/9781119695257.ch5)
56. Sabin JA, Moore K, Noonan C, Lallemand O, Buchwald D. Clinicians' Implicit and Explicit Attitudes about Weight and Race and Treatment Approaches to Overweight for American Indian Children. *Child Obes*. 2015;11(4):456-465. doi:[10.1089/chi.2014.0125](https://doi.org/10.1089/chi.2014.0125)