Today's Dietitian
The Magazine for Nutrition Professionals
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TODAY'S DIETITIAN

Weight-Inclusive Care: Evidence and Best Practices

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Suggested CDR Performance Indicators: 1.1.1, 1.3.3, 4.1.1, 8.3.6
CPE Level 2

In 1832, Belgian mathematician Adolphe Quetelet reported that body weight across adults varied with the square of height. This observation later became known as Quetelet's Rule and, eventually, Quetelet's Index. More than a century later, in 1972, Ancel Keys, PhD, and colleagues at the University of Minnesota renamed Quetelet's Index as the BMI.[1] BMI is now a widely used—though controversial—screening tool, with many major health institutions, such as the Centers for Disease Control and Prevention (CDC), having used the system to categorize weight for decades.

In 1998, a panel of nine medical experts—eight of whom had financial ties to the weight loss industry—chosen by the National Institutes of Health (NIH) voted to lower BMI cutoffs for overweight and obesity from 27.8 to 25.[2] (For clarity, this article uses the terms "overweight" and "obesity" per the definitions set by national and governmental health organizations. Within a discussion of weight bias, however, these terms may be controversial to some readers, and their use in this course does not necessarily reflect endorsement of these definitions.)

Interestingly, research didn't support lowering the cutoffs for overweight and obesity. In fact, the evidence supported raising the cutoff, as an association between BMI and mortality wasn't found until a BMI of higher than 40.[2-4] As a result of these BMI category revisions, an additional 40 million Americans were thereby considered to have overweight or obesity and the language surrounding the "obesity epidemic" and "war on obesity" was born.[2-5] As a consequence of the 1998 NIH report, the budgets for obesity programs at both the NIH and CDC increased significantly; the NIH budget increased about six-fold from 1993 to 2004.[5]

Then, in 2013, the American Medical Association labeled obesity as a disease, overriding its own Council on Science and Public Health, which argued against the classification primarily due to the flaws of using BMI as a defining metric. However, the Council was optimistic that labeling obesity as a disease would help reduce weight stigma, as obesity wouldn't be seen as simply a matter of self-control.[6]

Regardless of intention, treating obesity as a disease became associated with weight-normative care, now the standard of obesity care. Weight-normative care focuses on weight and weight loss as indicators of health and well-being. Conversely, weight-inclusive care emphasizes non–weight-based markers of health and well-being and doesn't use body weight as the focal point of treatment or intervention.[7]

This continuing education course examines the differences between weight-normative care and weight-inclusive care and the public and individual health benefits of RDs practicing weight-inclusive care.

Criticisms of a Weight-Normative Approach

High BMI has been shown to be associated with poor health but not to cause poor health, as only experimental designs can demonstrate causality.[7] Mortality risk is greatest among those with BMIs under 18.5 and above 35 but lowest for people with BMIs between 25 and 30, the "overweight" category.[4] Links between BMI and health may be attributed to other factors such as exercise, dietary pattern, insulin resistance, social determinants of health, and weight stigma.[7]

In their 2018 paper published in ***SAGE Open***, O'Hara and Taylor, who argue that there are inherent issues with a weight-centered health paradigm (WCHP), describe the development of a "3C Framework: Context, Critiques, and Consequences" to build critical competency for a shift to weight-inclusive care.[8] They describe the tenets and promulgators of the WCHP and outline ideological—including philosophical, ethical, and human rights concerns—empirical, and technical critiques of the paradigm. Essentially, the authors posit that the WCHP is not only harmful to health but also unethical, as it contravenes at least 13 of the human rights outlined in the Universal Declaration of Human Rights.[9,10]

In another paper, O'Hara and Gregg found that weight-centered public health messages fail to acknowledge or address potential human rights violations resulting from their implementation, with significant concern given to the issue of weight stigma.[9]

O'Hara and Taylor's empirical critiques relate to purported errors inherent in a WCHP, futility of policies and initiatives established as a result of this paradigm, and possible unintended negative effects of a weight-centric model. The authors argue that inaccuracies of a WCHP include poor interpretation of body weight changes over time, leading to "obesity epidemic" discourse; inaccurate depictions of the cause of higher body weight; and misplaced associations between body weight, morbidity, and mortality. They contend that the unintended harms of the WCHP are psychological, behavioral, physical, and social in nature.[8]

Technical critiques of the WCHP include a misplaced focus on behavior change and body weight rather than health and well-being.[8]

O'Hara and Taylor sum up the purported consequences of the WCHP as three interrelated issues: a more adipophobicogenic environment; risks to health and well-being; and worsened quality of life.[8] In a separate paper, O'Hara and Taylor define the adipophobicogenic environment as one that "creates and sustains fat phobia and oppression, including weight bias, prejudice, stigma, discrimination, bullying, violence, and cultural imperialism."[11] O'Hara and Taylor's framework suggests that WCHP may be inconsistent with the values and principles of best practice health promotion.[8]

Some research suggests that programs and policies derived from a weight-focused paradigm have been unsuccessful in promoting better health and weight loss. In fact, the weight-

normative approach has been associated with food and body preoccupation, weight cycling, reduced self-esteem, eating disorders, distraction from other personal health goals, weight stigmatization, and discrimination.[12] A 2014 study published in ***Basic and Applied Social Psychology*** found that 53% of women and 38% of men reported being shamed by a physician, with weight as one of the top reasons for the experience.[13]

Potential Effects of Weight Stigma on Health

Several researchers have argued that a weight-normative approach stigmatizes larger bodies by subscribing to the view that higher-weight people are unhealthy and that weight can be managed through will power. Researchers have defined weight stigma in several ways. Puhl and colleagues define weight stigma as "negative weight-related attitudes and beliefs that manifest as stereotypes, rejection, prejudice, and discrimination toward individuals of higher weights."[14] Tomiyama and colleagues define it as "the social rejection and devaluation that accrue to those who do not comply with prevailing social norms of adequate body weight and shape."[15]

Examples of weight stigma include teasing, bullying, harassment, violence, hostility, ostracism, and microaggressions related to weight; intimations from others to lose weight or be thin; and negative comments on one's appearance. Microaggressions are verbal, behavioral, or environmental messages—explicit or implied—that demonstrate negativity toward a marginalized group, such as a practitioner providing weight counseling when a patient is visiting the office for another concern.[7]

Weight bias and microaggressions in the health care environment may dissuade higher-weight patients from making positive lifestyle changes and visiting practitioners for regular and preventive care. Certain researchers have argued that the use of BMI charts and weight classifications in the health care setting can be inherently stigmatizing for some patients.[7] Health care practitioners, including physicians, nurses, medical students, and dietitians, have demonstrated weight stigma.[7,15-17] Weight stigma has been associated with poorer dietary and exercise practices and health care avoidance.[7,18,19]

Internalized weight stigma occurs when individuals subscribe to negative weight-related stereotypes and assess or criticize themselves and others with regard to these stereotypes; this internalized bias can affect anyone, regardless of weight.[7]

Weight stigma is associated with harmful physiologic, psychological, metabolic, and behavioral changes, including elevated blood pressure, unhealthful weight management strategies, disordered eating behaviors, poor body image, low self-esteem, and depression among children, adolescents, and adults.[7]

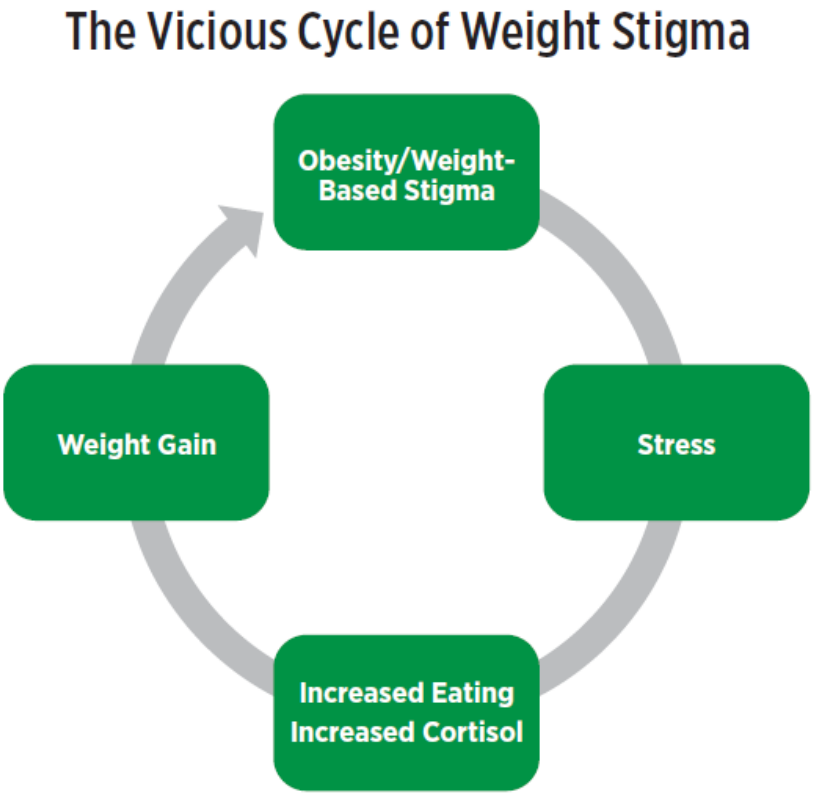
Randomized controlled trials suggest a relationship between weight stigma and overeating and physical inactivity.[20] Further studies have demonstrated a connection with increased eating, decreased self-regulation, higher levels of cortisol (a stress hormone linked to increasing fat deposition), avoidance of exercise, and poorer mental health.[15] In a subsample of higher-weight individuals (n=22,231) from the National Epidemiologic Survey on Alcohol and Related Conditions, a cross-sectional nationally representative study of US adults found that those who

perceived weight-based discrimination, regardless of actual body weight, are 2.5 times as likely to experience mood or anxiety disorders as those who don't.[21]

Large longitudinal studies have found an association between weight stigma and elevated C-reactive protein (CRP) and hemoglobin A1c (HbA1c).[22,23] CRP is a marker of systemic inflammation and a predictor of CVD and diabetes.[24,25] In a subsample of individuals without diabetes (n=938) from the Midlife in the United States II survey, Tsenkova and colleagues found that the highest HbA1c levels were seen in participants who both had a high waist-to-hip ratio and reported experiencing weight discrimination.[23]

In a study by Vadiveloo and colleagues, those who reported perceived weight discrimination had twice the risk of high allostatic load over 10 years compared with those who didn't perceive such discrimination. Allostatic load is the combination of multiple systems in the body (such as cardiovascular, sympathetic, parasympathetic, and metabolic) unhealthfully adapting to chronic stress. High allostatic load has been suggested to be a stronger predictor of morbidity and mortality related to chronic disease than typically measured risk factors. Essentially, the authors conclude that chronic, cumulative stress may harm health more than what they coin as "poor-quality dietary patterns." They posit that ameliorating weight stigma may reduce allostatic load and morbidity and mortality outcomes typically associated with obesity.[26]

A. Janet Tomiyama, PhD, an associate professor of health and social psychology at UCLA, has proposed a "Cyclic Obesity/Weight-Based Stigma (COBWEBS)" model characterizing weight stigma as a "vicious cycle." This model demonstrates a positive feedback loop where weight stigma engenders weight gain through greater food consumption and increased cortisol secretion (see figure).[27]



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Harms Associated With Weight Cycling

Evidence suggests that emphasizing weight and weight loss is associated with worse health outcomes and that programs within this paradigm don't result in long-term weight loss for most individuals.[3,7,12] In fact, weight cycling (repeated periods of weight loss and gain) is nearly guaranteed to occur with weight loss interventions and is associated with adverse medical, metabolic, and psychological health outcomes.[7,8,12]

The ongoing Framingham Heart Study has looked at morbidity and mortality in more than 5,000 individuals followed over 32 years and found that weight cycling has a significant correlation with both all-cause mortality and mortality and morbidity associated with coronary heart disease among men and women.[28]

The ERFORT Male Cohort Study followed 505 middle-aged men in Germany for 15 years to investigate the effect of weight change and fluctuations on all-cause mortality in men and found that only those men whose weight fluctuated saw increased mortality over the 15-year follow-up period. The weight fluctuations group showed a 0.9-kg/m^2 change in mean BMI from baseline at 15-year follow-up with large variability over time. Of note, weight-stable obesity wasn't linked to higher risk of death than a nonobese stable weight.[29]

Field and colleagues conducted a nested study of nearly 2,500 young and middle-aged women who had intentionally lost weight from the Nurses' Health Study II to examine the relationship

between weight cycling and weight change, weight control behaviors, and bulimic practices. Women with a history of weight cycling (39% of participants) partook in less physical activity, demonstrated more binge eating behaviors, and gained more weight compared with participants who didn't weight cycle. Researchers defined weight cycling as mild or severe. Severe weight cyclers gained an average of 10.3 lbs, and mild weight cyclers an average of 6.7 lbs, more than non–weight cyclers between 1993 and 2001.[30]

Osborn and colleagues conducted a study on the prevalence of weight cycling in 167 African American women before they enrolled in a community-based weight management program via cross-sectional analysis. The women were a mean age of 42 years old, with BMIs between 27 and 40 kg/m^2. Participants were considered weight cyclers if they had intentionally lost 20 lbs or more and gained it back at least one time. Among the sample, 63% weight cycled, with more than one-half having cycled more than three times. Those who weight cycled had statistically significant higher current and peak weights, greater motivation to be thin, less body acceptance, and less appearance-based self-esteem. The authors concluded that African American women are at risk of weight cycling, which may be associated with higher body weights and worse mental health.[31]

Yoo and colleagues found evidence of metabolic disruption in weight cyclers in a study of 109 Korean women participating in a community-based weight loss program. For the study, weight cycling was defined as experiencing a change in body weight of more than 5% of the body weight seen in the prior two years. Those who had a history of weight cycling (43%) saw more of a decrease in lean muscle mass than those who didn't have this history. The authors posit that, in weight cyclers, use of body fat is reduced and muscle wasting increases, thus causing weight cyclers to have a lower basal metabolic rate, making the sustainability of long-term body weight losses untenable.[32]

A Weight-Normative Approach and Eating Disorders

Evidence suggests that people who attempt to attain and sustain weight loss are at risk of binge eating disorder and bulimia nervosa. It's known that the dietary restriction needed to maintain lower weights can lead to episodes of overeating.[33] In some individuals, episodes of overeating are followed by disordered compensatory behaviors such as vomiting, excessive exercise, laxative abuse, and fasting.[7]

Simpson and Mazzeo studied nearly 500 college students who reported using calorie and/or fitness tracking devices and found that the use of such technology was associated with heightened eating concerns, more dietary restraint, and eating disorder symptomatology.[34]

A 2014 review paper published in the ***Journal of Obesity*** recommends against weight loss and food restriction, as dieting is associated with eating disorder onset and maintenance. The authors conclude that encouraging weight loss through dieting for higher-weight patients may be physically harmful and thus may not be in line with professional codes of ethics.[7]

Weight-Inclusive Care

A weight-inclusive approach is aligned with the Health at Every Size® (HAES®) model, trademarked and defined by the Association for Size Diversity and Health. The HAES®

approach denounces weight stigma as well as stigma against those with health conditions across the health care system and within the social environment. The framework contends that weight isn't a result of an individual's behaviors or choices and normalizes a range of human weights and sizes. It seeks paths to health other than weight loss.[35,36]

Weight-Inclusive Language for Dietitians

Clinicians can reduce weight stigma in many ways. Adopting a weight-inclusive approach decreases weight stigma and improves health behaviors and outcomes.[8,12,15,37-40]

Dietitians can be weight inclusive by considering language used in verbal interactions, on websites, and in printed materials. The words "overweight" and "obesity" generally are stigmatizing because they imply that a patient's weight exceeds some arbitrary "normal" weight and that a lower weight would be better.

Instead of using these terms, consider language such as "higher body weight" or "person in a larger body." Some individuals have reclaimed the word "fat" and will refer to their own bodies in this fat-accepting way. However, refrain from referring to a client as "fat" unless you have been given permission to do so and are sure that the term is being used as a neutral descriptor.

Evaluate your website and materials for weight-stigmatizing language. If you aim to align your practice with a weight-inclusive framework, your website and service descriptions shouldn't include terms such as "weight management" and "weight loss." Of course, many individuals will consult with dietitians about their body concerns. These concerns can be addressed through a HAES® and/or intuitive eating approach. Clinicians should inform clients of their practice philosophies.

The conversation could go something like this:

Patient: "I need to lose weight to improve my health."
Dietitian using the HAES® approach: "I hear that you have some weight and health concerns. Can you tell me more about your concerns?"

Patient: "My blood sugar and cholesterol were high on my recent tests."
Dietitian using the HAES® approach: "It was concerning to you that your test results were out of range. Did you know that it's possible to improve blood sugar and cholesterol without weight loss? In fact, I practice as a weight-inclusive dietitian, which means I help people with health and nutrition concerns without focusing on weight loss or restricting food intake at all."

Weight-Inclusive Clinic or Office Environment

If you see patients in an outpatient office setting, consider how the space will make them feel. To accommodate larger bodies, there should be appropriate furniture such as couches and armless chairs rather than chairs with arms that may be restrictive. In addition, doorways should be large enough to accommodate all bodies, whether they are walking or using a wheelchair or walker.

Materials in the waiting rooms should be size inclusive as well. Ensure diet- or weight-focused magazines aren't part of your reading materials. If you work in a setting that requires patients to have blood pressure measured or change into a gown, larger cuffs and gowns should be available.

Walking into an office and seeing a scale might arouse anxiety or emotions that can affect the client's ability to focus during a nutrition counseling session, so consider placing scales where they aren't visible. In addition, it may be helpful to have a conversation about this topic with clients to let them know what to expect in your sessions.

Put yourself in the perspective of the client and scan your environment for potential limitations. Make your space size, gender, and ethnically inclusive.

Adopting a HAES® Approach

The interdisciplinary HAES® framework refocuses health from weight management to non–weight-focused health promotion with a primary purpose of supporting improved health behaviors for people of any size. The National Eating Disorder Association, the Academy for Eating Disorders, the International Association of Eating Disorder Professionals, and other organizations explicitly support the HAES® approach as standard practice in the eating disorders field.[12]

The HAES® approach includes the following basic components:

- **Respect:** "Celebrates body diversity. Honors differences in size, age, race, ethnicity, gender, dis/ability, sexual orientation, religion, class, and other human attributes";
- **Critical Awareness:** "Challenges scientific and cultural assumptions. Values body knowledge and lived experiences"; and
- **Compassionate Self-Care: "**Finding the joy in moving one's body and being physically active. Eating in a flexible and attuned manner that values pleasure and honors internal cues of hunger, satiety, and appetite, while respecting the social conditions that frame eating options."[36,38]

In addition, the HAES® approach features the following values and principles: weight inclusivity, health enhancement, respectful care, healthful eating, life-enhancing movement, decoupling of health and weight, elimination of body assumptions, opposition to the pursuit of deliberate weight loss, and rejection of body size oppression and healthism.[8]

Using an Intuitive Eating Framework

Intuitive eating (IE) offers a weight-inclusive alternative to help patients who are preoccupied with body size or weight. Its principles were developed by Evelyn Tribole, MS, RDN, and Elyse Resch, MS, RDN. Since its inception in 1995, there have been more than 120 scientific studies published IE and researcher Tracy Tylka, PhD, has created a validated IE Assessment Scale based on Tribole and Resch's model that measures an individual's relationship with food and their body.[41-44]

Tribole and Resch train clinicians around the world to become certified IE counselors. There are currently more than 1,000 certified IE counselors spanning 23 countries from a variety of disciplines, including dietetics, nursing, and mental health.[45]

As described by the authors, “Intuitive eating is a dynamic mind-body integration of instinct, emotion, and rational thought.”[46] While an RD is a nutrition expert, IE promotes clients as the experts of their unique bodies. RDs can help clients explore the IE principles by decreasing barriers and enhancing access to body attunement.

Body attunement, also known as interoceptive awareness, is the ability to hear and respond to the body’s physical sensations such as hunger and fullness cues. Studies have shown that intuitive eaters have higher interoceptive awareness.[47] Barriers to attunement include food rules, having a diet mentality, and striving for weight loss—all components of the weight-normative approach. Among the ten IE principles, all aim to either enhance interoceptive awareness or remove obstacles to interoceptive awareness.

By following the principles of IE, clients may or may not lose weight. Weight loss is neither the focus nor the purpose of the approach; the main benefit is an improved relationship with food and the body. Clifford and colleagues reviewed the health impacts of nondiet approaches on attitudes, behaviors, and health outcomes in 14 studies involving community and worksite settings and found that “nondiet interventions resulted in statistically significant improvements in disordered eating patterns, self-esteem, and depression.” Two of these studies also found that biochemical measures improved significantly in those practicing IE compared with a control or diet group.[48]

Therefore, using an IE approach with clients is in line with weight-inclusive care; research has demonstrated the numerous health benefits of both weight-inclusive care and IE. Those interested in this approach can be referred to a certified IE counselor using the online directory or directed to ***The Intuitive Eating Workbook: 10 Principles for Nourishing a Healthy Relationship With Foo****d*.[45,46] The fourth edition of Resch and Tribole’s ***Intuitive Eating*** was released in June 2020.

Dietetics is a helping profession. To best help our clients, we must practice ethical care, and there is considerable evidence supporting the weight-inclusive approach to help clients of all sizes thrive. To create a weight-inclusive environment for your clients, consider the office environment and language used in materials and conversations. In addition, keep in mind that the evidence regarding BMI and health is correlational, not causative. Many factors have been found to affect weight, including genetics, socioeconomic factors, allostatic load, and weight cycling. Consider these factors before recommending weight loss for clients in larger bodies.

Additional Resources

1. Association for Size Diversity and Health website. sizediversityandhealth.org

2. The Original Intuitive Eating Pros website. intuitiveeating.org

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Quiz

1. Which of the following statements best describes intuitive eating?
A. A weight management approach based on intuition
B. A program created by two psychologists
C. A gentle weight loss program
D. A dynamic mind-body integration of instinct, emotion, and rational thought

2. What is Health at Every Size®?
A. A movement that says regardless of existing health conditions, people can be healthy at any size
B. A non–weight-focused health promotion to support improved health behaviors for people of any size
C. A weight loss program based on mindfulness
D. A philosophy that says people should eat whatever they want, whenever they want

3. What is the relationship between the pursuit of weight loss and eating disorders?
A. Dieting has been associated with the onset and maintenance of eating disorders.
B. There is no association between the pursuit of weight loss and eating disorders.
C. Eating disorders develop due to a genetic predisposition, not because of the pursuit of weight loss.
D. For some eating disorders, such as binge eating disorder, weight loss is recommended.

4. Which of the following hormones is secreted in times of stress, such as in reaction to weight-based discrimination or weight stigma?
A. Glucagon
B. Cortisol
C. Norepinephrine
D. Weight stigma isn't associated with stress hormone secretion.

5. What year did the National Institutes of Health change the BMI cutoffs for overweight and obesity?
A. 1990
B. 1992
C. 1996
D. 1998

6. Mortality risk is lowest for people whose weight falls under which BMI category?
A. Underweight
B. Normal weight
C. Overweight
D. Obese

7. In a subsample of US adults who had perceived weight-based discrimination, how much more likely were these adults to experience mood or anxiety disorders?
A. 1.5 times
B. Two times
C. 2.5 times
D. Three times

8. Evidence suggests that a focus on weight and weight loss is linked to which of the following?
A. Long-term weight loss
B. Weight cycling
C. Decreased mortality
D. Better body image

9. Which of the following is the name of a model describing a "vicious cycle" that comprises a positive feedback loop wherein weight stigma begets weight gain through increased eating behavior and increased cortisol secretion?
A. Cyclic Obesity/Weight-Based Stigma Model
B. Weight Stigma Awareness Model
C. Binge Eating From Weight Stigma Model
D. Weight Bias and Stigma Model

10. In a 2014 study published in *Basic and Applied Social Psychology*, what did patients report as the top reason they were shamed by physicians?
A. Lab results
B. Infrequent visits
C. Improper use of prescribed medications
D. Weight