

Weight Stigma and Barriers to Effective Obesity Care



Rebecca M. Puhl, PhD^{a,b,*}

KEYWORDS

- Weight stigma • Attitude • Obesity • Health care • Communication • Barrier
- Stigma reduction

KEY POINTS

- Health-care providers express weight-based stigma toward patients with obesity, who in turn perceive negative judgements, disrespectful communication, and lack of compassion from health-care providers.
- Weight stigma in health-care encounters is associated with lower patient motivation and adherence, poorer provider–patient communication, reduced quality of care, and health-care avoidance.
- Multifaceted approaches are needed to reduce stigma-related barriers in patient care.

INTRODUCTION

Weight stigma refers to societal devaluation of people because of their body weight or body size. In North America and many Western societies, individuals with higher weight (eg, obesity) are negatively stereotyped and face prejudice and unfair treatment across many societal settings.^{1,2} High rates of obesity have not tempered societal weight bias; in fact, although societal attitudes toward other commonly stigmatized groups have improved over time, there has been little improvement in weight stigma.³ As many as 40% of adults with obesity report experiencing weight stigma and/or discrimination⁴; prevalence rates increase with body mass index (BMI), and among adults engaged in weight management over half report experiencing weight stigma.⁵ At the root of this stigma are beliefs that people with obesity are personally to blame for their weight, lazy, unmotivated, lacking willpower and self-discipline, and noncompliant with treatment.^{6,7} A common setting in which weight stigma has been consistently documented is health care.^{6,7} Researchers have studied weight stigma in the health-care setting from the perspectives of both providers and

^a Rudd Center for Food Policy & Health, University of Connecticut, One Constitution Plaza, Suite 600, Hartford, CT 06103, USA; ^b Department of Human Development & Family Sciences, University of Connecticut, Storrs, CT, USA

* Department of Human Development & Family Sciences, University of Connecticut, Storrs, CT.
E-mail address: Rebecca.puhl@uconn.edu

patients; this evidence highlights a complex and prevalent problem that is harmful to patient health and creates barriers for effective patient care.

HEALTH CONSEQUENCES OF WEIGHT STIGMA

Weight stigma incurs a range of negative consequences for health and well-being. When people are negatively stereotyped, shamed, stigmatized, or treated unfairly because of their weight, these experiences increase the risk of both psychological distress and adverse physical health outcomes. Meta-analytic evidence and systematic reviews published in the last 5 years collectively illustrate the deleterious consequences of weight stigma, including depressive symptoms, anxiety, low self-esteem, poor body image, suicidality, substance use, disordered eating behaviors, increased food consumption, unhealthy weight control behaviors, reduced physical activity, increased physiological stress, weight gain, and increased risk of mortality.^{8–15} Evidence of the health harms of weight stigma has led to increasing recognition of weight stigma as a public health issue,¹⁶ and underscores the need for health-care professionals to be aware of this problem, help reduce the adverse effects of weight stigma on patient health, and support patients who face this stigma.

CURRENT EVIDENCE OF WEIGHT STIGMA IN HEALTH CARE

Provider Attitudes

For several decades, researchers have documented weight-biased attitudes and stereotypes among health-care professionals toward patients with obesity.^{6,17} A recent meta-analysis highlights the presence of weight bias expressed by medical professionals across a range of specialty areas, including doctors, primary care physicians, nurses, dietitians, mental health professionals, occupational therapists, and exercise physiologists.¹⁷ Provider attitudes about patients with obesity often mirror weight-based stereotypes documented in the general population (eg, attributions of laziness, low motivation, lack of willpower, individual responsibility), and evidence has found that doctors express implicit and explicit weight bias at similar levels to the general population.¹⁸ Moreover, weight bias is present among medical students early in their training,¹⁹ and even among professionals who specialize in obesity.^{20,21} Although most research to date has emerged from the United States, weight-biased attitudes have also been documented among health-care providers in countries such as Canada,²² Australia,²³ Germany,²⁴ France,²⁵ Poland,²⁶ the United Kingdom,²⁷ and the Netherlands.²⁸

Negative provider attitudes about patients with obesity may be overtly expressed in the health-care setting. A recent survey of medical professionals found that almost of half (48%) had witnessed stigmatizing communication or behaviors by medical staff toward patients with obesity, including offensive comments, making fun of someone's appearance, and facial expressions of disgust or smirks.²⁶ This aligns with reports of medical trainees' observations that patients with obesity are a target of derogatory humor and negative attitudes by health-care providers (65%) and instructors (40%).²⁹ Other research has documented associations between higher patient BMI and lower physician respect for the patient.³⁰

Patient Perspectives

Evidence indicates that patients with obesity are aware of biased attitudes from health-care providers. Several studies suggest that adults with obesity view doctors to be one of the most common interpersonal sources of weight stigma in their lives, with approximately one-half to two-thirds reporting that they have been stigmatized

about their weight from a doctor.^{31–33} For patients, each increase in their BMI category is associated with approximately a 2-fold increased likelihood of perceived stigma in primary care, and a patient's history of weight stigma experiences in health care (but not their BMI) is associated with lower perceptions of physician empathy.³⁴ Patient reports of weight stigma from providers commonly include perceived negative judgments about their weight, disrespectful and/or insulting comments, and lack of compassion and understanding.^{35–37} In line with evidence documenting provider weight biases, research documenting patient perspectives of these health-care experiences is multinational.³¹ As 2 recent examples, a 2020 national Polish study of patients with obesity found that more than 80% reported experiencing weight stigma from medical professionals,³⁸ and a 2022 Israeli health-care study reported that 59% of patients with obesity reported frequent disrespectful experiences from providers, and 58% reported insensitive and insulting comments from providers.³⁷

Patient perceptions of weight stigma by medical professionals have been studied across diverse patient care settings, such as primary care, maternity care, and obesity care.^{39–41} A 2019 systematic review of qualitative studies examining patient perspectives of clinical encounters about obesity identified consistent themes of weight stigma, including patient reports of health-care providers giving banal weight loss advice, assuming that patients were eating unhealthily and/or not trying to lose weight, attributing patient symptoms to weight without a proper history or examination, and negatively judging patients.³⁹ A 2020 scoping review of research examining communication practices of health-care professionals with pregnant women who have obesity showed consistent patient perceptions of weight stigma from providers.⁴⁰ Collectively, this evidence consistently points to the presence of stigmatizing health-care encounters in the lived experiences of patients with obesity.

STIGMA-INDUCED BARRIERS TO PATIENT CARE

The presence of weight stigma in the health-care setting has concerning implications for patient care and obesity treatment. Increasing evidence indicates that weight stigma can create barriers to effective care, ranging from poor patient-provider communication and reduced quality of care to poorer patient treatment outcomes and health-care avoidance ([Table 1](#)).

Provider Communication and Counseling

Weight stigma may interfere with effective provider-patient communication in several ways. The words that providers use to refer to their patients' weight can be perceived by patients as shaming or stigmatizing. A recent systematic review highlights diverse patient preferences regarding the terminology that providers use to describe their weight but also points to dislike of words such as "fat" or "obese."⁴² Thus, the language that providers use to communicate about weight with patients can unintentionally contribute to stigmatizing patient experiences. Beyond language, observational studies have found that physicians demonstrate less emotional rapport (such as empathic statements, reassurance, and partnership) in primary care visits with patients with higher BMI (overweight or obesity) compared with patients with lower weight.⁴³ Similarly, research in prenatal care suggests that providers engage in less rapport building with women of higher BMI compared with lower BMI.⁴⁴ Another study has demonstrated less patient-centered communication from providers in health-care encounters with men who have obesity compared with men with lower weight.⁴⁵ Emerging evidence also points to racial disparities in quality of provider communication with patients of higher weight, with Black/African American adults with obesity

Table 1	
Stigma-induced barriers to patient care and potential remedies	
Stigma-Induced Barriers to Patient Care	
Provider Communication and Counseling	Patient Care and Outcomes
<ul style="list-style-type: none"> • Stigmatizing, insensitive, or blaming language • Negative weight-based attitudes and stereotypes • Attributing causes of obesity to personal choices/control • Weight-based terminology that patients dislike • Lack of patient-centered communication • Inadequate rapport building and lack of empathy • Attributing presenting problems to weight without considering other explanations • Emphasis on weight or weight loss as only goal 	<ul style="list-style-type: none"> • Patients feel judged and blamed for their weight • Patients have lower trust in providers • Poorer provider-patient communication • Reduced quality of patient care • Inadequate medical equipment to accommodate patients of diverse body sizes • Poorer patient adherence and treatment outcomes • Increased clinical attrition • Patient avoidance and delay of care
Strategies to Reduce Weight Stigma in Health Care	
<ul style="list-style-type: none"> • Education about the complex etiology of obesity and body weight regulation • Education about weight bias and its harmful consequences on patient health and wellbeing • Training to increase providers' self-awareness of personal biases about body weight • Training to improve supportive, respectful, and patient-centered communication about weight-related health • Inclusion of weight stigma in medical school curricula and continuing medical education • Implementation of standards to ensure comprehensive teaching on obesity and nutrition in medical school • Implementation of multi-faceted stigma-reduction interventions targeting healthcare providers • Development of methods for certifying knowledge of weight stigma and stigma-free skills and practices • Requirements of sufficient infrastructure for effective obesity care in medical facilities • Efforts to ensure that broader health communication and narratives are free of stigma, bias, and blame 	

less likely than Whites to report that their providers spend enough time with them or explain things well.⁴⁶ Within pediatric care, pediatric providers express concerns about compliance in parents who have a child with obesity; parents report being aware of these judgments and in turn report feeling nervous or uncomfortable in provider interactions.⁴⁷

Provider communication influenced by weight stigma can affect the ways that providers counsel patients about their weight-related health. For example, when treating patients with higher weight, providers may be more likely to attribute medical complaints to weight while potentially overlooking other explanations for the patient's presenting problems.^{48,49} Recent experimental evidence has documented differential treatment and decision-making of higher-weight patients by health professionals, who have a tendency to focus on the patient's weight even when the patient is not seeking treatment of their weight.⁵⁰ In prenatal care, evidence has found that providers engage in less lifestyle counseling with women with high BMI (eg, asking fewer lifestyle questions and offering less lifestyle information) compared with women with lower weight.⁴⁴ It may be that provider communication is influenced by their

perceptions of normative attitudes about obesity in the health-care setting. For example, among medical students, those who perceived negative attitudes about patients with obesity to be normative in medical school demonstrated poorer patient-centered behaviors and less attentiveness, responsiveness, respectfulness, and interactivity when engaging in a patient care scenario with a standardized patient with obesity.⁵¹ Collectively, this evidence suggests that patient body weight affects the quality of communication between providers and patients.

Patient Care and Outcomes

Weight stigma can negatively affect patient health outcomes and quality of care.⁷ Studies have demonstrated that health-care providers spend less time in appointments with patients who have higher weight compared with lower weight,⁵² and express less willingness to treat patients with higher weight.⁴¹ Perceived weight stigma during medical visits is associated with lower patient motivation and compliance,⁵³ including reduced adherence to medications, cancer screenings, health behavior recommendations, and self-care.^{54–57} The relationship between perceived weight stigma and lower patient adherence may be mediated by lower patient trust in providers and less perceived provider empathy.⁵⁵ Quality of care can be further compromised by the lack of sufficient medical equipment that is appropriately sized for patients with larger bodies.³⁷

Weight-related patient outcomes and care can be affected by weight stigma in health care. In a study of 600 adults with overweight or obesity, 21% thought that their primary care provider had negatively judged them about their weight, and in turn had lower trust in their provider.³⁶ Further, patients who perceived weight-based judgment from providers were less likely to achieve 10% or greater weight loss compared with those who did not perceive judgement from providers about their weight.⁵⁸ Among patients with obesity engaged in medical weight loss, emerging evidence indicates that clinical attrition is significantly higher for patients with greater levels of internalized weight bias.⁵⁹ Weight stigma may also have negative implications for patients undergoing bariatric surgery.^{60,61} For example, perceived weight stigma from health-care providers is associated with less postsurgery dietary adherence among bariatric surgery patients.⁵⁴ Qualitative evidence has found that postsurgery patients report receiving little communication or support from their doctors, and that weight stigma is a barrier to seeking needed mental health care following bariatric surgery.^{62,63}

HealthCare Utilization and Avoidance

People are more likely to avoid or delay care if they anticipate experiencing weight stigma in a health-care encounter.⁶⁴ Women with obesity who report delaying preventive care attribute barriers of disrespectful treatment in health care, embarrassment of being weighed, negative provider attitudes, unsolicited advice to lose weight, and inadequately sized medical equipment that is too small for their bodies.⁶⁵ Decisions to avoid future care may also stem from the language that providers use to talk about patient weight. For example, one study found that approximately 20% of adults would avoid future medical appointments or seek a new doctor if they thought their provider had used stigmatizing language about their weight.⁶⁶ Recent evidence from primary care patients suggests that the relationship between patient BMI and delaying needed care or attempting to switch primary care doctors is mediated by stigma experienced in health care and lower patient-centered communication.⁶⁷ Patient BMI was also associated with lower perceived respect from providers, which in turn mediated the association between patients' reported health-care experiences and utilization.⁶⁷

Among adults engaged in weight management, recent multinational evidence points to the role of internalized weight bias in health-care avoidance. Across 6 Western countries (Australia, Canada, France, Germany, United Kingdom, and United States), adults with higher internalized weight bias reported more health-care avoidance, as well as a lower frequency of obtaining routine medical checkups, and worse quality of health care; these patterns persisted across all countries after accounting for BMI, demographics, and experiences of weight stigma.³¹ Evidence examining potential processes underlying links between weight status and health-care avoidance in women has found that this relationship can be explained by weight stigma (experienced and internalized), body-related shame and guilt, and health-care stress.⁶⁸ In particular, body-related shame in women was associated with health-care stress, which in turn contributed to health-care avoidance.⁶⁸

POTENTIAL REMEDIES TO REDUCE WEIGHT STIGMA IN HEALTH CARE

Societal weight stigma is difficult to change.³ To date, most stigma reduction interventions targeting medical trainees and health-care professionals have demonstrated pessimistic findings. A 2016 review of published interventions (primarily focused on students training in professional medical and health disciplines) showed little improvements in weight bias.⁶⁹ Studies used a variety of stigma-reduction strategies, ranging from educational reading materials, lectures, and films about weight bias and the complex etiology of obesity to self-reflection activities and interactions with patients with obesity. Although some studies reported improvements in participants' knowledge about obesity and its complex etiology, participants' attitudes and levels of bias remained largely unchanged.⁶⁹ Methodological limitations of this literature (including small sample sizes, lack of control groups or long-term follow-up) underscore the need for more empirical attention to stigma-reduction strategies.

Some recent research has pointed to several avenues for stigma-reduction in medical students that show potential promise. Several studies have targeted training of medical students with structured educational interventions that involve clinical encounters with standardized patients with higher body weight. In one study, students read articles about communication and stigma before a clinical encounter with a standardized patient with obesity and completed self-reflections both before and afterwards. Findings showed short-term decreases in negative stereotyping, and long-term (1 year) improvements in empathy and confidence in counseling toward patients with obesity.⁷⁰ Another study demonstrated that direct faculty observation of medical students during a standardized patient encounter for obesity predicted improvement in students' quality of patient-centered care, using both student self-reported ratings and ratings of independent observers.⁷¹ Most recently, a longitudinal study with 3576 medical students found that having favorable contact with patients with higher weight during medical school training was associated with improved attitudes after 4 years of medical school.⁷² Additionally, positive contact experiences with higher-weight patients during medical school partially offset the effects of their negative baseline attitudes.⁷²

Nevertheless, this research literature remains scattered, and the absence of definitive approaches that can effectively reduce weight stigma in health care reiterates the importance of increased studies in this area. Efforts should prioritize testing multifaceted approaches and strategies to address this complex problem, including efforts to increase self-awareness and empathy, understanding the complex causes of obesity, respectful communication, role modeling from influential peers or leaders, and

sensitivity training. It will be important for these efforts to target both continuing education for established providers engaged in clinical practice and education and training of medical students. Recent evidence indicates that current United States medical schools are not adequately training medical students in obesity management or prioritizing obesity in medical education curriculum.⁷³ Given that education on weight stigma is much more likely to appear in obesity-related curriculum than other content areas, these findings highlight the importance of improving medical school curriculum on obesity and weight stigma.

Optimistically, there has been growing recognition and calls for efforts to address weight stigma by and within the medical community. In 2020, an international consensus statement supported by 100+ medical and scientific organizations worldwide called for the elimination of weight stigma, including prioritizing efforts to address weight stigma in the medical community.⁷⁴ Recommendations included implementing standards to ensure comprehensive teaching about obesity into standard medical school curricula; developing methods for certifying knowledge of weight stigma, its harmful effects, and stigma-free skills and practices; and requiring appropriate infrastructure for effective obesity care in medical facilities. The statement also called for broad efforts to ensure that societal messages and narratives of obesity are free from stigma.⁷⁴ Similarly, a joint consensus statement of medical professionals from the United Kingdom emphasized the importance of addressing language in efforts to reduce weight stigma in health care, calling for initiatives that increase awareness and usage of appropriate, nonstigmatizing language to promote supportive and collaborative provider–patient communication.⁷⁵ These statements have emerged alongside recent calls to action that evidence-based, patient-centered, compassionate care be accessible to all individuals seeking treatment of obesity, and that health professionals respect patient decisions about their body weight regardless of whether or not weight loss is an intended goal.⁷⁶ It will be critical to include people affected by obesity in these efforts, whose knowledge, experiences, and perspectives can inform and guide stigma-reduction initiatives and strategies to remove bias-related barriers to care. Research examining stigma-reduction priorities according to perspectives of women with obesity suggests that efforts should go farther than education about weight stigma and sensitivity training for health-care providers and medical students to also ensure that intervention and treatment programs provide services that support patients and help them cope with weight stigma and its harmful effects on their lives.⁷⁷

SUMMARY

Weight stigma is prevalent and has negative consequences for health and well-being. This problem is present in health care, with stigmatizing attitudes toward patients with obesity expressed by medical professionals across diverse specialties and patient care settings. Weight stigma creates barriers to effective care, including poor patient–provider communication, reduced quality of care, and health-care avoidance. Although stigma reduction interventions in health care have demonstrated pessimistic findings, there have been increasing international calls for actions to address weight stigma in the medical community. Multifaceted approaches to reduce weight stigma will be necessary and should include self-awareness and empathy, respectful communication, role modeling, sensitivity training, and knowledge of obesity etiology. Engaging people with obesity in stigma reduction efforts is critical to ensure that their experiences and perspectives inform strategies to effectively remove bias-related barriers to patient care.

CLINICS CARE POINTS

- Recognize that weight stigma is prevalent and contributes to increased psychological distress and poor physical health for individuals with high body weight.
- Acknowledge the complex etiology of obesity and avoid attributing patients' body weight to personal choices or individual responsibility.
- Increase self-awareness of weight-based assumptions and stereotypes, and look for examples that challenge these stereotypes.
- Use patient-centered approaches like motivational interviewing to support patients in making healthy behavior changes, and engage them collaboratively in determining goals and addressing barriers.
- Take steps to eliminate weight stigma in provider-patient interactions through increased rapport-building, supportive counseling, and patient-centered communication.
- Acknowledge that patients' previous experiences of stigma with providers may lead patients to anticipate weight stigma in health care and delay or avoid care.
- When communicating with patients about weight-related health, use respectful and sensitive language. Ask patients for their preferred term(s) to describe their weight and use their preferred terms in your communication.
- Practice compassionate care with patients of all body sizes, and respect patient decisions about their body weight regardless of whether or not weight loss is an intended goal.
- Create a welcoming and non-stigmatizing clinic environment for patients of diverse body sizes; ensure that medical equipment, scales, patient gowns, and seating options can accommodate patients with larger body sizes.

DISCLOSURE

R.M. Puhl has received research grants from WW and served as a consultant for Eli Lilly and Company, outside of the submitted work.

REFERENCES

1. Pearl RL. Weight bias and stigma: Public health implications and structural solutions. *Soc Issues Policy Rev* 2018;12:146–82.
2. Brewis AA, Wutich A, Falletta-Cowden A, et al. Body norms and fat stigma in a global perspective. *Curr Anthropol* 2011;52:269–76.
3. Charlesworth TES, Banaji MR. Patterns of implicit and explicit attitudes: Long term change and stability from 2007 to 2016. *Psychol Sci* 2019;30:174–92.
4. Spahlholz J, Baer N, König HH, et al. Obesity and discrimination - a systematic review and meta-analysis of observational studies. *Obes Rev* 2016;17:43–55.
5. Puhl RM, Lessard LM, Pearl RL, et al. International comparisons of weight stigma: addressing a void in the field. *Int J Obes* 2021;45:1976–85.
6. Puhl RM, Heuer CA. The stigma of obesity: a review and update. *Obesity* 2009; 17:941–64.
7. Phelan SM, Burgess DJ, Yeazel MW, et al. Impact of weight bias and stigma on quality of care and outcomes for patients with obesity. *Obes Rev* 2015;16: 319–26.
8. Bidstrup H, Brennan L, Kaufmann L, et al. Internalised weight stigma as a mediator of the relationship between experienced/perceived weight stigma and biopsychosocial outcomes: a systematic review. *Int J Obes* 2022;46:1–9.

9. Emmer C, Bosnjak M, Mata J. The association between weight stigma and mental health: a meta-analysis. *Obes Rev* 2020;21:e12935.
10. Alimoradi Z, Golboni F, Griffiths MD, et al. Weight-related stigma and psychological distress: a systematic review and meta-analysis. *Clin Nutr* 2020;39:2001–13.
11. Wu YK, Berry DC. Impact of weight stigma on physiological and psychological health outcomes for overweight and obese adults: a systematic review. *J Adv Nurs* 2018;74:1030–42.
12. Pearl RL, Puhl RM. Weight bias internalization and health: a systematic review. *Obes Rev* 2018;19:1141–63.
13. Warnick JL, Darling KE, West CE, et al. Weight stigma and mental health in youth: a systematic review and meta-analysis. *J Pediatr Psychol* 2022;47:237–55.
14. Zhu X, Smith RA, Buteau E. A meta-analysis of weight stigma and health behaviors. *Stigma and Health* 2022;7:1–13.
15. Pearl RL, Wadden TA, Jakicic JM. Is weight stigma associated with physical activity? A systematic review. *Obesity* 2021;29:1994–2012.
16. Brewis A, SturtzSreetharan C, Wutich A. Obesity stigma is a globalizing health challenge. *Glob Health* 2018;14:20.
17. Lawrence BJ, Kerr D, Pollard CM, et al. Weight bias among health care professionals: a systematic review and meta-analysis. *Obesity* 2021;29:1802–12.
18. 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:e48448.
19. Phelan SM, Dovidio JF, Puhl RM, et al. Implicit and explicit weight bias in a national sample of 4,732 medical students: the medical student CHANGES study. *Obesity* 2014;22:1201–8.
20. Tomiyama JA, Finch LE, Incollingo Belsky AC, et al. Weight bias in 2001 versus 2013: contradictory attitudes among obesity researchers and health professionals. *Obesity* 2015;23:46–53.
21. Jungnickel T, von Jan U, Engeli S, et al. Exploring the weight bias of professionals working in the field of obesity with a mobile IAT: a pilot study. *Ther Adv Endocrinol Metab* 2022;13. <https://doi.org/10.1177/20420188221098881>.
22. Alberga AS, Nutter S, MacInnis C, et al. Examining weight bias among practicing Canadian family physicians. *Obes Facts* 2019;12:632–8.
23. Setchell J, Watson B, Jones L, et al. Physiotherapists demonstrate weight stigma: a cross sectional survey of Australian physiotherapists. *J Physiother* 2014;60:157–62.
24. Sikorski C, Luppa M, Glaesmer H, et al. Attitudes of health care professionals towards female obese patients. *Obes Facts* 2013;6:512–22.
25. Bocquier A, Verger P, Basdevant A, et al. Overweight and obesity: knowledge, attitudes, and practices of general practitioners in France. *Obes Res* 2005;13:787–95.
26. Sobczak K, Leoniuk K. Attitudes of medical professionals towards discrimination of patients with obesity. *Risk Manag Healthc Policy* 2021;14:4169–75.
27. Swift JA, Hanlon S, El-Redy L, et al. Weight bias among UK trainee dietitians, doctors, nurses and nutritionists. *J Hum Nutr Diet* 2013;26:395–402.
28. van der Voorn B, Camfferman R, Seidell J.C, et al. Weight-biased attitudes about pediatric patients with obesity in Dutch healthcare professionals from seven different professions, *J Child Health Care*, 2023,13674935221133953. doi: 10.1177/13674935221133953.

29. Puhl RM, Luedicke J, Grilo CM. Obesity bias in training: attitudes, beliefs, and observations among advanced trainees in professional health disciplines. *Obesity* 2014;22:1008–15.
30. Huizinga MM, Cooper LA, Bleich SN, et al. Physician respect for patients with obesity. *J Gen Intern Med* 2009;24:1236–9.
31. Puhl RM, Lessard LM, Himmelstein MS, et al. The roles of experienced and internalized weight stigma in healthcare experiences: Perspectives of adults engaged in weight management across six countries. *PLoS One* 2021;16:e0251566.
32. Puhl RM, Brownell KD. Confronting and coping with weight stigma: an investigation of overweight and obese adults. *Obesity* 2006;14:1802–15.
33. Puhl RM, Himmelstein MS, Pearl RL, et al. Weight stigma among sexual minority adults: Findings from a matched sample of adults engaged in weight management. *Obesity* 2019;27:1906–15.
34. Ferrante JM, Seaman K, Bator A, et al. Impact of perceived weight stigma among underserved women on doctor-patient relationships. *Obes Sci Pract* 2016;2:128–35.
35. Farrell E, Hollmann E, le Roux CW, et al. The lived experience of patients with obesity: a systematic review and qualitative synthesis. *Obes Rev* 2021;22:e13334.
36. Gudzone KA, Bennett WL, Cooper LA, et al. Patients who feel judged about their weight have lower trust in their primary care providers. *Patient Educ Couns* 2014;97:128–31.
37. Sagi-Dain L, Echar M, Paska-Davis N. Experiences of weight stigmatization in the Israeli healthcare system among overweight and obese individuals. *Isr J Health Policy Res* 2022;11:5.
38. Sobczak K, Leoniuk K, Rudnik A. Experience of Polish patients with obesity in contacts with medical professionals. *Patient Prefer Adherence* 2020;14:1683–8.
39. Ananthakumar T, Jones NR, Hinton L, et al. Clinical encounters about obesity: systematic review of patients' perspectives. *Clin Obes* 2020;10:e12347.
40. Dieterich R, Demirci J. Communication practices of healthcare professionals when caring for overweight/obese pregnant women: a scoping review. *Patient Educ Couns* 2020;103:1902–12.
41. Mulherin K, Miller YD, Barlow FK, et al. Weight stigma in maternity care: women's experiences and care providers' attitudes. *BMC Pregnancy Childbirth* 2013;13:19.
42. Puhl RM. What words should we use to talk about weight? A systematic review of quantitative and qualitative studies examining preferences for weight-related terminology. *Obes Rev* 2020;21:e13008.
43. Gudzone KA, Beach MC, Roter DL, et al. Physicians build less rapport with obese patients. *Obesity* 2013;21:2146–52.
44. Washington Cole KO, Gudzone KA, Bleich SN, et al. Providing prenatal care to pregnant women with overweight or obesity: Differences in provider communication and ratings of the patient-provider relationship by patient body weight. *Patient Educ Couns* 2017;100:1103–10.
45. Phelan SM, Lynch BA, Blake KD, et al. The impact of obesity on perceived patient-centred communication. *Obes Sci Pract* 2018;4:338–46.
46. Wong MS, Gudzone KA, Bleich SN. Provider communication quality: influence of patients' weight and race. *Patient Educ Couns* 2015;98:492–8.
47. Halvorson EE, Curley T, Wright M, et al. Weight bias in pediatric inpatient care. *Acad Pediatr* 2019;19:780–6.

48. Oestbye T, Taylor D, Yancy W, et al. Associations between obesity and receipt of screening mammography, Papanicolaou tests, and influenza vaccination: Results from the Health and Retirement Study (HRS) and the asset and health dynamics among the oldest old (AHEAD) study. *Am J Public Health* 2005;95:1623–30.
49. Mitchell RS, Padwal RS, Chuck AW, et al. Cancer screening among the overweight and obese in Canada. *Am J Prev Med* 2008;35:127–32.
50. Rathbone JA, Cruwys T, Jetten J, et al. When stigma is the norm: How weight and social norms influence the healthcare we receive. *J Appl Soc Psychol* 2020. <https://doi.org/10.1111/jasp.12689>.
51. Phelan SM, Puhl RM, Burgess DJ, et al. The role of weight bias and role-modeling in medical students' patient-centered communication with higher weight standardized patients. *Patient Educ Couns* 2021;104:1962–9.
52. Hebl MR, Xu J. Weighing the care: physicians' reactions to the size of a patient. *Int J Obes Relat Metab Disord* 2001;25:1246–52.
53. Hayward LE, Neang S, Ma S, et al. Discussing weight with patients with overweight: supportive (not stigmatizing) conversations increase compliance intentions and health motivation. *Stigma and Health* 2020;5:53–68.
54. Raves DM, Brewis A, Trainer S, et al. Bariatric surgery patients' perceptions of weight-related stigma in healthcare settings impair postsurgery dietary adherence. *Front Psychol* 2016;7:1497.
55. Snyder M, Haskard-Zolnerek K, Howard K, et al. Weight stigma is associated with provider-patient relationship factors and adherence for individuals with hypothyroidism. *J Health Psychol* 2022;27:702–12.
56. Potter L, Wallston K, Trief P, et al. Attributing discrimination to weight: associations with well-being, self-care, and disease status in patients with type 2 diabetes mellitus. *J Behav Med* 2015;38:863–75.
57. Maruthur NM, Bolen SD, Brancati FL, et al. The association of obesity and cervical cancer screening: a systematic review and meta-analysis. *Obesity* 2009;17:375–81.
58. Gudzone KA, Bennett WL, Cooper LA, et al. Perceived judgment about weight can negatively influence weight loss: a cross-sectional study of overweight and obese patients. *Prev Med* 2014;62:103–7.
59. Verhaak AMS, Ferrand J, Puhl RM, et al. Experienced weight stigma, internalized weight bias, and clinical attrition in a medical weight loss patient sample. *Int J Obes* 2022;46:1241–3.
60. Phelan SM. An update on research examining the implications of stigma for access to and utilization of bariatric surgery. *Curr Opin Endocrinol Diabetes Obes* 2018;25:321–5.
61. Sarwer DB, Gasoyan H, Bauerle Bass S, et al. Role of weight bias and patient-physician communication in the underutilization of bariatric surgery. *Surg Obes Relat Dis* 2021;17:1926–32.
62. Jumbe S, Meyrick J. Contrasting views of the postbariatric surgery experience between patients and their practitioners: a qualitative study. *Obes Surg* 2018;28:2447–56.
63. Sharman M, Hensher M, Wilkinson S, et al. What are the support experiences and needs of patients who have received bariatric surgery? *Health Expect* 2017;20:35–46.
64. Drury CA, Louis M. Exploring the association between body weight, stigma of obesity, and healthcare avoidance. *J Am Acad Nurse Pract* 2002;14:554–61.

65. Amy NK, Aalborg A, Lyons P, et al. Barriers to routine gynecological cancer screening for White and African-American obese women. *Int J Obes* 2006;30:147–55.
66. Puhl R, Peterson JL, Luedicke J. Motivating or stigmatizing? Public perceptions of weight-related language used by health providers. *Int J Obes* 2013;37:612–9.
67. Phelan SM, Bauer KW, Bradley D, et al. A model of weight-based stigma in health care and utilization outcomes: Evidence from the learning health systems network. *Obes Sci Pract* 2021;8:139–46.
68. 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;25:139–47.
69. Alberga AS, Pickering BJ, Alix Hayden K, et al. Weight bias reduction in health professionals: a systematic review. *Clin Obes* 2016;6:175–88.
70. Kushner RF, Zeiss DM, Feinglass JM, et al. An obesity educational intervention for medical students addressing weight bias and communication skills using standardized patients. *BMC Med Educ* 2014;14:53.
71. Miller N, Angstman KB, van Ryn M, et al. The association of direct observation of medical students with patient-centered care for obesity. *Fam Med* 2020;52:271–7.
72. Meadows A, Higgs S, Burke SE, et al. Social dominance orientation, dispositional empathy, and need for cognitive closure moderate the impact of empathy-skills training, but not patient contact, on medical students' negative attitudes toward higher-weight patients. *Front Psychol* 2017;8:1–15.
73. Butsch WS, Kushner RF, Alford S, et al. Low priority of obesity education leads to lack of medical students' preparedness to effectively treat patients with obesity: results from the U.S. medical school obesity education curriculum benchmark study. *BMC Med Educ* 2020;20:23.
74. Rubino F, Puhl RM, Cummings DE, et al. Joint international consensus statement for ending stigma of obesity. *Nat Med* 2020;26:485–97.
75. Albury C, Strain WD, Brocq SL, et al. Language Matters working group. The importance of language in engagement between health-care professionals and people living with obesity: a joint consensus statement. *Lancet Diabetes Endocrinol* 2020;8:447–55.
76. Cardel MI, Newsome FA, Pearl RL, et al. Patient-centered care for obesity: How health care providers can treat obesity while actively addressing weight stigma and eating disorder risk. *J Acad Nutr Diet* 2022;122:1089–98.
77. Puhl RM, Himmelstein MS, Gorin AA, et al. Missing the target: including perspectives of women with overweight and obesity to inform stigma-reduction strategies. *Obes Sci Pract* 2017;3:25–35.