

SYNOPSIS

Review of “Weight Bias: A Narrative Review of the Evidence, Assumptions, Assessment, and Recommendations for Weight Bias in Health Care”

Published: May 2024

Article citation: Peterson K, Savoie Roskos M. Weight bias: a narrative review of the evidence, assumptions, assessment, and recommendations for weight bias in health care. *Health Educ Behav.* 2023;50(4):517-28. Available from: <https://doi.org/10.1177/10901981231178697>

One-Minute Summary

- Weight bias is described as negative beliefs or attitudes about weight that lead to prejudice and weight discrimination. This can negatively impact an individual's experiences and health.
- Health care provider's (HCP's) often rely on weight loss as the main factor in improving patients' health in current practice. Authors call for a shift towards more weight inclusive approaches to providing health care.
- The authors performed a narrative review of 47 published papers from the United States (U.S.) including evidence, assumptions, assessments, and recommendations for weight bias within health care.

Evidence and Impacts of Weight Bias

- There is strong evidence supporting the existence of weight bias, including among medical students and HCP's.
 - **Provider care impacts** can include reduced quality of care for patients of certain body sizes. HCP with weight bias tend to spend less time with their patients, have less patient-centered care, less respect, less communication and information provided to patients. Providers may also be less likely to manage symptoms of higher BMI patients by prescribing medication, and to instead recommend lifestyle changes.
 - **Patient impacts** of weight bias can include emotional, physical well-being, and lifestyle behaviors. These emotional and psychological impacts lead to associated negative health effects such as increased cardiometabolic disease and diabetes. Many negative outcomes that previous research has associated with excess weight (e.g., heart disease, high hemoglobin A1C levels) may actually be at least partially attributed to the effects of weight bias. Perceptions of weight bias have also been associated with negative changes in lifestyle behaviours, including increased food consumption, binge eating and decreased physical activity.

Limitations and Alternatives to BMI

- Evidence suggests **BMI is an appropriate indicator at the population health level.**
- However, HCP commonly use BMI without understanding its **limitations in measuring individual-level health.** Often, BMI is used to identify a person as ‘healthy’ or ‘unhealthy’ but individual-level variability is not accounted for (e.g., age, gender, muscle mass, bone density, or cardiometabolic health). While the BMI tool is quick and inexpensive, it does not accurately identify a person’s overall health risk and should not be the only determinant assessing an individual’s risk for chronic disease.
- There are several **alternative body composition measurement tools.**
 - Some are not realistic for public health or health care settings.
 - More feasible alternatives exist for clinic settings, including waist circumference and waist-to-height ratios, both of which are more accurate than BMI in determining risk factors for adverse outcomes and in the case of waist circumference, also chronic disease.

Measuring Weight Bias

- A number of **weight bias self-assessments** have been studied for validity, with most assessment tools measuring explicit bias. Available self-assessment tools are reported to have internal consistency and validity, but lack a standardized conceptualization of weight bias.
- Self-assessments are available for HCP but more research is needed to set a standard for evaluating both implicit and explicit bias.

Alternative Approaches to Health Avoiding Weight Bias Treatment

- Alternative approaches to health avoiding weight-biased treatment approaches include proper education, language change, and a focus on behavioral interventions.
 - **Education** should be provided to HCP on determinants of excess weight to address the belief that diet and exercise are the only causes.
 - **Appropriate use of language**, labels and categories is important to mitigate feelings of perceived bias from patients. Terms “obese,” “morbidly obese,” and “fat” were identified as most problematic (stigmatizing, least motivating, suggests blame) whereas “high BMI” and “unhealthy weight” were perceived as less stigmatizing.
 - **Behaviour interventions** are unbiased and take a weight-inclusive approach. It is reported that behaviour interventions could be more sustainable, potentially more effective at improving metabolic markers, and have less adverse outcomes compared to traditional weight management interventions that focus on weight loss itself. There are limited examples for weight-neutral lifestyle behavior-focused interventions available. The only example of an intervention provided by authors [the Health at Every Size (HAES)], requires further validation before it can be used as a public health approach in health promotion.

Additional Information

The narrative review describes four components that are summarized:

1. evidence of weight bias and its impact on providers and patients
2. limitations of body mass index (BMI) as a current screening tool for determining health and suggest alternative screening to determine health risk
3. available tools for self-assessment of weight bias
4. evidence supporting an alternative weight-inclusive approach to health and well-being to mitigate weight bias

Authors include a disclaimer regarding the use “overweight” and “obesity,” used throughout. “The decision was made by authors to include these terms to reflect current terminology primarily used in the literature and is not intended to stigmatize or cause harm.”

Weight bias is a not a widely studied topic therefore some of the evidence relied on in their review is older (10+ years). Additionally, some of the recommendations are based on the findings of one or two studies and may not be generalizable or scalable.

PHO Reviewer’s Comments

This review represents a recent overview of the state of the published literature relating to weight stigma in health care, including significant patient and provider impacts, and identifies directions for future work on this topic.

The review is moderate in quality based on the [HealthEvidence.org](https://www.healthevidence.org) quality assessment tool.¹

- Strengths include a published search strategy of several relevant databases with appropriate key terms that were customized for each of the four review objectives, systematic application of inclusion and exclusion criteria, and provision of tables summarizing the data supporting the authors’ conclusions. Although this review focuses on the U.S., both the U.S. Center for Disease Control (CDC) and World Health Organization (WHO) follow similar recommendations to use BMI to assess an individual’s excess fat as an indicator for chronic disease.^{2,3} Results from this review of available peer-reviewed current evidence from the U.S. will be helpful in informing alternative approaches (e.g., weight-to-height ratio).
- While the review searched several databases for the published literature, the overall search strategy was not comprehensive since no search strategies beyond database searching were used (e.g., grey literature), and so findings are subject to publication bias. Other limitations included lack of specification for why a narrative review was chosen to summarize evidence. Narrative reviews do not offer an evidence-based synthesis for focused questions or definitive guideline statements but provide interpretations that are open to critique and will vary depending on the author team or context of the review.⁴ Despite this, the results of this review are informative and recent, and an overall systematic process was applied.

The experiences of weight bias are not isolated to the U.S. health system with similar challenges reflected in the Canadian context where a proportion (up to 50%) of family physicians currently practicing are found to have weight bias in their perceptions of patients with obesity.^{5,6} To address bias in practice, a comprehensive update of the Canadian Adult Obesity Clinical Practice Guidelines (CPGs) was completed to develop an evidence-based and patient-centered framework.⁷ A summary of recommendations that consider the effects and impacts of weight stigma is available.⁸

Weight bias is identified among providers and medical students suggesting that early intervention to address weight bias and strengthen competencies would be beneficial for practitioners in training to avoid perpetuating biases in their own practice.⁹ Authors briefly touch on the economic impacts of weight bias. Weight bias can potentially contribute to unnecessary treatments, untreated symptoms and delay in appropriate preventative care that could prevent cost associated with chronic disease.¹⁰ However, as a result of limited availability of tools to support provider self-assessments, most U.S. HCP likely don't have self-awareness of their bias towards weight or an understanding of the impacts. The self-assessment tools that are available are not validated across the evidence. The authors' presentation of the impacts of weight stigma for both patients and providers underscores the need to pursue alternatives to meaningful and valid measurement for both BMI and weight stigma itself.

Although the focus of this narrative review is on health care and providers, these providers are part of the larger health system which includes public health and health promotion. Public health has a role in supporting the evidence-based development of tools, guidance and resources that give advice around risk factors. Authors suggest that there is evidence to support BMI as a tool for population health surveillance. To mitigate stigma and harms in public health, the focus of health promotion efforts and policy should be on modifiable health behaviours and weight-inclusive health promotion strategies, rather than weight loss solely.¹¹

References

1. McMaster University; National Collaborating Centre for Methods and Tools. Health Evidence™ quality assessment tool [Internet]. Hamilton, ON: McMaster University; 2018 [cited 2024 Apr 18]. Available from: <https://www.healthevidence.org/our-appraisal-tools.aspx>
2. Center for Disease Control and Prevention (CDC). Healthy weight assessment [Internet]. Atlanta, GA: CDC; 2022 [cited 2024 Apr 18]. Available from: <https://www.cdc.gov/healthyweight/assessing/index.html>
3. World Health Organization (WHO). Obesity and overweight [Internet]. Geneva: WHO; 2024 [cited 2024 Apr 18]. Available from: <https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight>
4. Sukhera J. Narrative reviews: flexible, rigorous, and practical. *J Grad Med Educ.* 2022;14(4):414-7. Available from: <https://doi.org/10.4300/JGME-D-22-00480.1>
5. Alberga AS, Nutter S, MacInnis C, Ellard JH, Russell-Mayhew S. Examining weight bias among practicing Canadian family physicians. *Obes Facts.* 2019;12(6):632-8. Available from: <https://doi.org/10.1159/000503751>
6. Obesity Canada. Addressing weight stigma and changing healthcare in Canada [Internet]. Edmonton, AB: University of Alberta; 2024 [cite 2024 Apr 26]. Available from: <https://obesitycanada.ca/oc-news/addressing-weight-stigma-and-changing-healthcare-in-canada/>
7. Obesity Canada. Canadian adult obesity clinical practice guidelines [Internet]. Edmonton, AB: University of Alberta; 2024 [cited 2024 Apr 26]. Available from: <https://obesitycanada.ca/guidelines/>
8. Wharton S, Lau DCW, Vallis M, Sharma AM, Biertho L, Campbell-Scherer D, et al. Obesity in adults: a clinical practice guideline. *CMAJ.* 2020;192(31):875-91. Available from: <https://doi.org/10.1503/cmaj.191707>
9. Roshan JA, Nagpal TS, Pearce N, Dhaliwal KK, El-Hussein M, Forham M, et al. Transforming the landscape of obesity education: the Canadian obesity education competencies. *Obes Pillars.* 2023;8:100091. Available from: <https://doi.org/10.1016/j.obpill.2023.100091>
10. Phelan SM, Burgess DJ, Yeazel MW, Hellerstedt WL, Griffin JM, van Ryn M. Impact of weight bias and stigma on quality of care and outcomes for patients with obesity. *Obes Rev.* 2015;16(4):319-26. Available form: <https://doi.org/10.1111/obr.12266>
11. Hunger JM, Smith JP, Tomiyama AJ. An evidence-based rationale for adopting weight-inclusive health policy. *Soc Iss Policy Rev.* 2020;14(1):73-107 Available from: <https://doi.org/10.1111/sipr.12062>

Citation

Ontario Agency for Health Protection and Promotion (Public Health Ontario). Review of “Weight bias: a narrative review of the evidence, assumptions, assessment, and recommendations for weight bias in health care”. Toronto, ON: King’s Printer for Ontario; 2024.

Disclaimer

This document was developed by Public Health Ontario (PHO). PHO provides scientific and technical advice to Ontario’s government, public health organizations and health care providers. PHO’s work is guided by the current best available evidence at the time of publication. The application and use of this document is the responsibility of the user. PHO assumes no liability resulting from any such application or use. This document may be reproduced without permission for non-commercial purposes only and provided that appropriate credit is given to PHO. No changes and/or modifications may be made to this document without express written permission from PHO.

Public Health Ontario

Public Health Ontario is an agency of the Government of Ontario dedicated to protecting and promoting the health of all Ontarians and reducing inequities in health. Public Health Ontario links public health practitioners, front-line health workers and researchers to the best scientific intelligence and knowledge from around the world.

For more information about PHO, visit publichealthontario.ca.