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FROM THE EDITOR

What's Wrong With Overreliance on BMI?

Kratika Mishra and Astrid Floegel-Shetty, MA

I yearn for more than neutrality, acceptance, and tolerance—all of which strike me as meek pleas to simply stop harming us, rather than asking for help in healing that harm or requesting that each of us unearth and examine our existing biases against fat people.
Aubrey Gordon[1]

US adults classified as obese, estimated to compose 42.4% of the US population in a 2017-2018 survey,[2] captivate public discourse because of the sustained scholarship outlining the adverse health outcomes (such as postulated risk of cardiovascular disease, diabetes, and cancer) and the economic consequences (including projected spending on health care) of being obese.[3] A diagnosis of obesity is primarily reliant on body mass index (BMI), which is calculated by dividing an individual's weight in kilograms by the square of their height in meters.[4] BMI serves as a metric for health status; it influences diagnostic workup, differential diagnosis, intervention selection, and outcome measurement.

Current use of BMI as an evaluative and predictive tool is troubling. Originally conceived as a practical index of relative body weight,[5] BMI is now wielded in medicine as a heuristic for disease and health risk, despite studies showing that BMI can be (1) an inaccurate proxy for cardiometabolic markers of health (eg, blood pressure, cholesterol levels)[6] or lifestyle factors (eg, physical activity, eating habits) and (2) imprecise in its prediction of health risks when applied to the diversity of human bodies.[7] Beyond BMI being a poor identification tool, the stratification of care by patients' BMI is ethically troubling because it reinforces narratives justifying anti-fat attitudes and discrimination within systems and individual interactions.[8]

Reliance on BMI as a diagnostic metric also narrows what medicine accepts as "healthy" bodies—those perceived as not fat—with wide-ranging consequences. On one hand, the "weight-normative approach" to medicine, which emphasizes the roles of weight and personal responsibility for health,[9] perpetuates misunderstandings about the phenotypes[10] of and potential resolutions for obesity. Without consideration of individual clinical presentation, bodies with a BMI greater than 30 are automatically labeled as obese, and weight loss is often recommended as *the* treatment option despite its unsustainability and impermanence.[11] On the other hand, health care quality is undermined by the assumption that "normal weight" bodies are the benchmark of health. This assumption manifests in inequitable eligibility criteria for clinical trials that influence the generation of evidence for standards of care,[12,13] iatrogenic harm born of

anti-fat biases during care delivery,[14,15,16,17] and a moral panic[18,19] that, to our collective and individual detriment, pursues oversimplified and imprecise efforts during care administration to promote thinness and eliminate fat bodies that pose a supposed epidemic-level threat.[20,21]

This issue of the *AMA Journal of Ethics* focuses on ethical dimensions of how BMI is clinically deployed. Specifically considered are BMI screening practices for gender-affirming surgeries, pharmaceutical interventions for adolescents classified as obese on the basis of BMI, historical and current uses of BMI in enforcing power inequity, and the exclusion of people with higher BMIs from clinical trials.[12,13] Through exposure to this slate of thoughtful perspectives, we hope that readers of this issue of the *AMA Journal of Ethics* will come away with an enriched understanding of how the overuse of BMI in medical practice detrimentally leads to weight being disproportionately valued in our conception, assessment, and promotion of health.[22]

References

1. Gordon A. *What We Don't Talk About When We Talk About Fat.* Beacon Press; 2020.
2. Hales CM, Carroll MD, Fryar CD, Ogden CL. Prevalence of obesity and severe obesity among adults: United States, 2017-2018. *NHS Data Brief.* 2020;(360):1-8.
3. Chu DT, Nguyet NTM, Dinh TC, et al. An update on physical health and economic consequences of overweight and obesity. *Diabetes Metab Syndr.* 2018;12(6):1095-1100.
4. Tsatsoulis A, Paschou SA. Metabolically healthy obesity: criteria, epidemiology, controversies, and consequences. *Curr Obes Rep.* 2020;9(2):109-120.
5. Eknoyan G. Adolphe Quetelet (1796-1874)—the average man and indices of obesity. *Nephrol Dial Transplant.* 2008;23(1):47-51.
6. Tomiyama AJ, Hunger JM, Nguyen-Cuu J, Wells C. Misclassification of cardiometabolic health when using body mass index categories in NHANES 2005-2012. *Int J Obes (Lond).* 2016;40(5):883-886.
7. Elagizi A, Kachur S, Lavie CJ, et al. An overview and update on obesity and the obesity paradox in cardiovascular diseases. *Prog Cardiovasc Dis.* 2018;61(2):142-150.
8. Ringel MM, Ditto PH. The moralization of obesity. *Soc Sci Med*. 2019;237:112399.
9. 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.
10. Lopez-Jimenez F, Miranda WR. Diagnosing obesity: beyond BMI. *AMA J Ethics.* 2010;12(4):292-298.
11. Hall KD, Kahan S. Maintenance of lost weight and long-term management of obesity. *Med Clin North Am.* 2018;102(1):183-197.
12. Campbell J, Sutherland J, Bucknall D, et al. Equity in vaccine trials for higher weight people? A rapid review of weight-related inclusion and exclusion criteria for COVID-19 clinical trials. *Vaccines (Basel).* 2021;9(12):1466.
13. Pestine E, Stokes A, Trinquart L. Representation of obese participants in obesity-related cancer randomized trials. *Ann Oncol.* 2018;29(7):1582-1587.
14. 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.

15. Tomiyama AJ, Carr D, Granberg EM, et al. How and why weight stigma drives the obesity "epidemic" and harms health. *BMC Med*. 2018;16(1):123.
16. Fat shaming in the doctor's office can be mentally and physically harmful. News release. American Psychological Association; August 3, 2017. Accessed February 17, 2023. https://www.apa.org/news/press/releases/2017/08/fat-shaming
17. Thille P. How anti-fat bias in health care endangers lives. *The Conversation*. May 9, 2019. Accessed February 17, 2023. https://theconversation.com/how-anti-fat-bias-in-health-care-endangers-lives-115888
18. Campos P, Saguy A, Ernsberger P, Oliver E, Gaesser G. The epidemiology of overweight and obesity: public health crisis or moral panic? *Int J Epidemiol*. 2005;35(1):55-60.
19. Boero N. All the news that's fat to print: the American "obesity epidemic" and the media. *Qualitative Sociol.* 2007;30(1):41-60.
20. LeBesco K. Fat panic and the new morality. In: Metzl JM, Kirkland A, eds. *Against Health: How Health Became the New Morality.* New York University Press; 2010:72-82.
21. Cohen S. *Folk Devils and Moral Panics: The Creation of the Mods and Rockers.* Routledge; 2011.
22. Guthman J. Fatuous measures: the artifactual construction of the obesity epidemic. *Crit Public Health.* 2013;23(3):263-273.

Kratika Mishra is an MD/MBA candidate at the University of Southern California in Los Angeles. She plans to pursue a career in psychiatry and eventually work clinically with immigrant populations. Her primary professional interests include trauma-informed care in preventive settings, weight-inclusive approaches to health care, and the use of technology to improve the accessibility and affordability of mental health care.

Astrid Floegel-Shetty, MA is a graduate of the Loyola Marymount University Bioethics Institute. She plans to pursue a career in health law. Her scholarly interests include competency, mental health and substance use disorders, moral injury and trauma, justice, and health humanities.

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