Racial and ethnic representation among a sample of nutrition- and obesity-focused professional organizations in the United States

Tiffany L Carson,[1,2] Michelle I Cardel,[3,4,5] Takara L Stanley,[6,7] Steven Grinspoon,[6] James O Hill,[8] Jamy Ard,[9] Elizabeth Mayer-Davis,[10] and Fatima Cody Stanford[7,11]

[1]Department of Health Outcomes and Behavior, Division of Population Sciences, H. Lee Moffitt Cancer Center & Research Institute, Tampa, FL, USA; [2]Department of Oncologic Sciences, Morsani College of Medicine, University of South Florida, Tampa, FL, USA; [3]Department of Health Outcomes and Biomedical Informatics, University of Florida College of Medicine, Gainesville, FL, USA; [4]Center for Integrative Cardiovascular and Metabolic Disease, University of Florida; Gainesville, FL, USA; [5]WW International, Inc., New York City, NY, USA; [6]Department of Medicine, Metabolism Unit, Massachusetts General Hospital and Harvard Medical School, Boston, MA, USA; [7]Pediatric Endocrinology, Massachusetts General Hospital and Harvard Medical School, Boston, MA, USA; [8]Department of Nutrition Sciences, University of Alabama at Birmingham, Birmingham AL, USA; [9]Department of Epidemiology and Prevention, Wake Forest School of Medicine, Winston Salem, NC, USA; [10]Department of Nutrition and Department of Medicine, University of North Carolina at Chapel Hill, Chapel Hill, NC, USA; and [11]Department of Medicine, Neuroendocrine Unit, Massachusetts General Hospital and Harvard Medical School, Boston, MA, USA

ABSTRACT

Background: Obesity is a chronic disease that disproportionately affects individuals from nonmajority racial/ethnic groups in the United States. Research shows that individuals from minority racial/ethnic backgrounds consider it important to have access to providers from diverse backgrounds. Health care providers and scientists from minority racial/ethnic groups are more likely than non-Hispanic whites to treat or conduct research on patients from underrepresented groups.

Objectives: To characterize the racial/ethnic diversity of nutrition- and obesity-focused professional organizations in the United States.

Methods: This study assessed race/ethnicity data from several obesity-focused national organizations including The Obesity Society, the Academy of Nutrition and Dietetics (AND), the American Society for Nutrition, and the American Board of Obesity Medicine (ABOM). Each organization was queried via emailed survey to provide data on racial/ethnic representation among their membership in the past 5 y and among elected presidents from 2010 to 2020.

Results: Two of the 3 professional societies queried did not systematically track race/ethnicity data at the time of query. Limited tracking data available from AND show underrepresentation of black (2.6%), Asian (3.9%), Latinx (3.1%), Native Hawaiian or Pacific Islander: (1.3%), or indigenous (American Indian or Alaskan Native: 0.3%) individuals compared with the US population. Underrepresentation of racial/ethnic minorities was also reported for ABOM diplomates (black: 6.0%, Latinx: 5.0%, Native American: 0.2%). Only AND reported having racial/ethnic diversity (20%) among the organization's presidents within the previous decade (2010–2020).

Conclusions: Findings suggest that *1*) standardized tracking of race and ethnicity data is needed to fully assess diversity, equity, and inclusion, and *2*) work is needed to increase the diversity of membership and leadership at the presidential level within obesity- and nutrition-focused professional organizations. A diverse cadre of obesity- and nutrition-focused health care professionals is needed to further improve nutrition-related health outcomes, including obesity, cardiovascular disease, diabetes, and undernutrition, in this country. *Am J Clin Nutr* 2021;114:1869–1872.

Keywords: equity, minorities, academia, diversity, underrepresented, obesity, nutrition

Introduction

Obesity remains a major public health concern that disproportionately affects individuals from nonmajority racial and ethnic groups in the United States. For example, the age-adjusted prevalence of obesity among black and Latinx adults is 49.6% and 44.8%, respectively, compared with 42.2% among white adults living in the United States (1). Similarly, obesity-associated chronic diseases such as type 2 diabetes are disproportionately represented among black (11.7%) and Latinx individuals (12.5%) compared with white individuals (7.5%) (2). Along with multiple

Supported by grants from the Executive Committee on Research (ECOR) at Massachusetts General Hospital (FCS), National Institutes of Health National Institute of Diabetes and Digestive and Kidney Diseases P30DK040561 (FCS, TLC, SG) and L30DK118710 (FCS). MIC is also supported by the National Institutes of Health National Heart, Lung, and Blood Institute (K01HL141535).

Address correspondence to TLC (e-mail: tiffany.carson@moffitt.org).

Abbreviations used: ABOM, American Board of Obesity Medicine; AND, Academy of Nutrition and Dietetics; ASN, American Society for Nutrition; RD, registered dietitian; RDN, registered dietitian nutritionist; TOS, The Obesity Society.

Received March 26, 2021. Accepted for publication August 9, 2021.

First published online October 27, 2021; doi: https://doi.org/10.1093/ajcn/nqab284.

genetic, structural, and cultural factors, nutrition can be a key contributing factor to obesity and obesity-associated chronic diseases. Importantly, professionals with expertise in nutrition can play a significant role in the prevention and treatment of obesity and related diseases. Because scientists and health care providers from minority racial and ethnic groups are more likely than whites to study and treat individuals from minority racial and ethnic groups (3–6), there is a critical need to ensure that there is a diverse cadre of nutrition- and/or obesity-focused scientists and health care professionals to combat obesity and related heath challenges among individuals with obesity.

The following racial and ethnic groups have been shown by the National Science Foundation to be underrepresented in health-related sciences on a national basis: blacks or African Americans, Hispanics or Latinx, American Indians or Alaska Natives, and Native Hawaiians and other Pacific Islanders (7). At all ranks, the underrepresentation of these racial and ethnic groups on the faculty of universities in the United States is well documented and becomes more pronounced with increasing rank (8–10). Similarly, there is evidence to support that individuals from underrepresented groups are less likely to receive large research grants (e.g., R01) from the NIH, which, in many settings, is indicative of "independence" and is a prerequisite for promotion and tenure in health sciences programs at many top institutions, which further contributes to the lack of individuals from underrepresented racial and ethnic groups at higher ranks and in leadership at academic institutions (6, 11–13). In addition to academic institutions and funding agencies, professional organizations are another conduit through which health science researchers can grow and cultivate their careers and research programs through exchanging ideas, leveraging resources provided by the organization, and networking with other scientists in the field. Professional organizations provide a tremendous opportunity to support scientific discovery and advance the career development of scientists from all groups. However, the racial and ethnic representation within professional organizations is not currently well described in the scientific literature.

Diversity among nutrition- and/or obesity-focused professionals is also beneficial for patients seeking treatment for obesity and for public health efforts, in general. A diverse workforce provides access to a greater range of perspectives and talent compared with the limited lens of a monolithic group (14). A diverse workforce is also more likely to understand the needs of a wider range of patients and communities and increase the likelihood that individuals from minority racial or ethnic groups, who bear a disproportionate burden of obesity, will seek care and access available services (14, 15). Diversity is also associated with employee retention, suggesting that the workforce of nutrition- and/or obesity-focused professionals may be sustained and grow as a result of a commitment to creating diverse environments. The purpose of this perspective study is to describe the general landscape of current racial and ethnic representation within the membership and among elected presidents of a subset of nutrition- and/or obesity-focused professional organizations in the United States, to raise awareness about the lack of diversity across organizations, and to stimulate efforts to increase diversity, equity, and inclusion among nutrition- and/or obesity-focused health care professionals.

Methods

Three nutrition- and/or obesity-focused professional societies were probed using an emailed survey to provide racial and ethnic demographic data among the membership within their respective organizations within the past 5 y and among elected presidents within the 10-y window of 2010–2020. The professional societies included the Academy of Nutrition and Dietetics (AND), the American Society for Nutrition (ASN), and The Obesity Society (TOS). Current demographics of diplomates within the previous 5 y were also requested from the American Board of Obesity Medicine (ABOM), the physician credentialing board for obesity medicine. Although these 4 groups represent only a subset of nutrition- and/or obesity-focused organizations and do not constitute a full systematic analysis of all organizations, these differing types of organizations were included to capture representation from a broad range of nutrition and obesity professionals. A brief survey was sent via email to leaders within each professional society (chief executive officer for AND, chief knowledge officer for ASN, senior manager of member services for TOS) and the director of physician relations for ABOM requesting racial and ethnic demographic data in membership within the past 5 y and elected presidents within the past 10 y (for professional societies only).

Results

All of the organizations that were contacted were responsive to the initial email request for demographic information. At the time of query, AND and ABOM had an established tracking system from which the requested data were provided. TOS and ASN did not have an established tracking system for racial/ethnic data at the time of inquiry and were unable to provide the requested data.

Summaries for each organization are as follows (**Table 1**):

I) AND is the world's largest organization of food and nutrition professionals consisting of more than 100,000 practitioners with a goal of improving the nation's health and advancing the profession of dietetics through research, education, and advocacy (16). According to the Commission on Dietetic Registration, the credentialing agency for the Academy of Nutrition and Dietetics, as of March 15, 2021, there were 93,320 registered dietitian (RD) and registered dietitian nutritionist (RDN) members of AND (17). According to self-reported data, among these 93,320 RDs and RDNs, the racial/ethnic distribution was black, 2.6%; Asian, 3.9%; Latinx, 3.1%; American Indian or Alaskan Native, 0.3%; Native Hawaiian or Pacific Islander, 1.3%; white, 81.1%; other, 1.2%; 2 or more races, 0.5%; prefer not to answer, 2.3%; and no response provided, 3.6%. Of those who have served as AND presidents from 2010 to 2020, 2 of 10 identified as racial/ethnic minorities.

II) ASN is an international leader and professional organization whose mission is "to advance the science, education, and practice of nutrition." Established in 1928, the purposes of the Society are to extend nutrition-related knowledge through multidisciplinary research; to promote networking, education, and training; to support dissemination and application of information broadly; and to advocate for nutrition research (18). At the time of query, the Society's membership tracking system did not allow for tracking

TABLE 1 Prevalence statistics by race/ethnicity for the US general population relative to health care provider and professional society demographics[1]

Characteristic	Black/AA, %	Asian, %	AI/AN, %	Latinx, %	NH/PI, %	White, %	2+ races, %	Other, %	No data/prefer not to answer, %
US population[2]	12.5	5.8	0.7	18.5	0.002	60.1	2.2	0	0
US physicians[3]	5.0	17.1	0.3	5.8	0.0	56.2	1.0	0.8	13.7
American Board of Obesity Medicine Diplomates ($n = 4148$)	6.0	20.9	0.2	5.0	—	35.5	—	2.1	30.3
Academy of Nutrition and Dietetics ($n = 93{,}320$)	2.6	3.9	0.3	3.1	1.3	81.1	0.5	1.2	5.9

[1]Data on race/ethnicity of their members were not collected at the time of query by the American Society of Nutrition ($n = 7493$) or The Obesity Society ($n = 2800$). AA, African American; AI/AN, American Indian/Alaskan Native; NH, Native Hawaiian; PI, Pacific Islander.
[2]From 2019 US Census Bureau, https://www.census.gov/data/tables/time-series/demo/popest/2010s-national-detail.html.
[3]From the American Association of Medical Colleges (AAMC) 2018 data, https://www.aamc.org/data-reports/workforce/interactive-data/figure-18-percentage-all-active-physicians-race/ethnicity-2018.

of racial/ethnic demographics of its 7493 members from more than 100 countries. Of those who have served as ASN presidents from 2010 to 2020, none have identified as racial/ethnic minorities.

III) TOS, which includes approximately 2800 members, is a professional society focused on obesity science, treatment, and prevention through research, education, and action (19). Membership ranges from early career to established scientists and health care providers across a spectrum of disciplines. Although racial/ethnic diversity in TOS is stated as a priority area for the current leadership, racial/ethnic demographics of members were not available at the time of our query. Of those who have served as TOS presidents from 2010 to 2020, none have identified as racial/ethnic minorities.

IV) ABOM is a self-appointed physician evaluation organization that maintains standards for assessing and credentialing physicians who provide obesity care. Certification as an ABOM diplomate signifies specialized knowledge in the practice of obesity medicine. ABOM reported a total of 4148 certified diplomates. Racial/ethnic demographics among certified diplomates were as follows: black, 6.0%; Asian, 20.9%; Latinx, 5.0%; Native American, 0.2%; white, 35.5%; other, 2.1%; prefer not to answer, 3.8%; and no response provided, 26.5%.

Discussion

The goal of this study was to describe the racial/ethnic demographics among 3 nutrition- and/or obesity-focused societies in the United States and the physician credentialing board for obesity medicine. The data provided demonstrate stark disparities in the prevalence of racial/ethnic minorities among the US population and that of researchers and health care providers in the areas of obesity and nutrition. Despite black individuals representing 12.5% of the US population, they account for only 5% of US physicians, 6% of ABOM diplomates, and 2.6% of RDs or RDNs. Among Latinx individuals, this group makes up 18.5% of the US population but only 5.8% of physicians, 5% of ABOM diplomates, and 3.1% of RDs or RDNs. For American Indians, Alaskan Natives, Native Hawaiians, or Pacific Islanders, they remain <1% in all categories, with the exception of Native Hawaiian or Pacific Islander RDs or RDNs, who make up 1.3% of the AND membership. Conversely, Asians are 5.8% of the US population but account for 17.1% of US physicians, 20.9% of ABOM diplomates, and 3.9% of RDs or RDNs, making them highly overrepresented in these fields, with the exception of RDs or RDNs. It is possible that the same individual is a member in multiple organizations included in this study and thus a limitation of this report. Still, this suggests that among nutrition and obesity professional societies and accreditation boards, blacks, Latinx, Native Hawaiians or Pacific Islanders, and indigenous populations remain highly underrepresented in these fields, while whites and Asian Americans are adequately or overrepresented in these fields. This is consistent with previous data in other Science, Technology, Engineering, Mathematics, and Medicine (STEMM) fields (20).

Unfortunately, 2 of the professional societies—the ASN and TOS—were unable to provide any data related to racial/ethnic diversity within their membership. This highlights an important limitation for diversity-focused initiatives because it is

challenging to address what is not measured and documented. Regular tracking and reporting of these metrics can serve as a critical first step toward advancing diversity efforts among organizations.

Another limitation of this report is that the selected list of organizations may create bias by not capturing the general patterns of racial or ethnic diversity among all nutrition- and/or obesity-focused professionals. Organizations included in this perspective piece were an academic-focused subset and may not represent the full spectrum of nutrition-related positions (e.g., nonprofit, industry) or fully represent the racial/ethnic makeup of nutrition- or obesity-focused professionals who are not affiliated with these societies for a range of potential reasons (e.g., lack of inclusivity, unaffordable membership fees, perception of limited opportunity or value). Also, this general review only assessed the leadership position of president within each professional society. It is possible that other positions of leadership, such as executive council members, within these organizations that were not assessed may reflect greater diversity in race or ethnicity.

To date, there has been no comprehensive effort to address progress in academia and health care in the obesity and nutrition fields for those who are underrepresented. Data from the Association of American Medical Colleges and American Council on Education suggest that the disproportionate representation of some racial or ethnic groups may emerge early in the training pipeline (e.g., applicants to higher education programs, graduates). Indeed, for progress to be measured, we must assess the current landscape related to diversity and advancement within our institutions and professional organizations. Thus, organizations should track race and ethnicity of their membership in a more systematic manner. By acknowledging key players in the arc of progress in academia (early career investigators, scientific society leadership, senior leadership in academia and at the NIH), we will be able to develop a comprehensive blueprint to tackle inequities in academic progress. Based on this preliminary report highlighting the lack of attention to diversity in nutrition- and/or obesity-focused professional societies, a key component of this comprehensive blueprint will undoubtedly be a call to action for professional societies to launch an intentional effort to systematically track race and ethnicity among membership and increase racial and ethnic diversity among their membership.

We thank each organization for agreeing to provide feedback and/or data for this article.

The authors' responsibilities were as follows—TLC and MIC: led drafting of the paper; TLS: reviewed, edited, and developed tables; SG, JOH, JA, and EM-D reviewed, edited, and provided substantive feedback; FCS: conceptualized and contributed to the writing and editing of the paper; and all authors: have read and approved the final version. The authors report no conflicts of interest.

Data Availability

Data described in the manuscript, code book, and analytic code will not be made available as we do not have permission from the organizations to distribute.

References

1. Ogden CL, Fryar CD, Martin CB, Freedman DS, Carroll MD, Gu Q, Hales CM. Trends in obesity prevalence by race and Hispanic origin—1999–2000 to 2017–2018. JAMA 2020;324(12):1208–10.
2. Centers for Disease Control and Prevention. National Diabetes Statistics Report, 2020. Atlanta (GA): US Department of Health and Human Services, Centers for Disease Control and Prevention; 2020.
3. Brotherton SE, Stoddard JJ, Tang SS. Minority and nonminority pediatricians' care of minority and poor children. Arch Pediatr Adolesc Med 2000;154(9):912–7.
4. Gartland JJ, Hojat M, Christian EB, Callahan CA, Nasca TJ. African American and White physicians: a comparison of satisfaction with medical education, professional careers, and research activities. Teach Learn Med 2003;15(2):106–12.
5. Komaromy M, Grumbach K, Drake M, Vranizan K, Lurie N, Keane D, Bindman AB. The role of black and Hispanic physicians in providing health care for underserved populations. N Engl J Med 1996;334(20):1305–10.
6. Hoppe TA, Litovitz A, Willis KA, Meseroll RA, Perkins MJ, Hutchins BI, Davis AF, Lauer MS, Valantine HA, Anderson JM, et al. Topic choice contributes to the lower rate of NIH awards to African-American/black scientists. Sci Adv 2019;5(10):eaaw7238.
7. National Science Foundation, National Center for Science and Engineering Statistics. Women, minorities, and persons with disabilities in science and engineering: 2021. Special Report NSF 21–321. Alexandria (VA): National Science Foundation; 2021.
8. Yu PT, Parsa PV, Hassanein O, Rogers SO, Chang DC. Minorities struggle to advance in academic medicine: a 12-y review of diversity at the highest levels of America's teaching institutions. J Surg Res 2013;182(2):212–8.
9. Kaplan SE, Raj A, Carr PL, Terrin N, Breeze JL, Freund KM. Race/ethnicity and success in academic medicine: findings from a longitudinal multi-institutional study. Acad Med 2018;93(4):616–22.
10. Flores G, Mendoza FS, DeBaun MR, Fuentes-Afflick E, Jones VF, Mendoza JA, Raphael JL, Wang CJ. Keys to academic success for under-represented minority young investigators: recommendations from the Research in Academic Pediatrics Initiative on Diversity (RAPID) National Advisory Committee. Int J Equity Health 2019;18(1):93.
11. Ginther DK, Kahn S, Schaffer WT. Gender, race/ethnicity, and National Institutes of Health R01 research awards: is there evidence of a double bind for women of color? Acad Med 2016;91(8):1098–107.
12. Ginther DK, Schaffer WT, Schnell J, Masimore B, Liu F, Haak LL, Kington R. Race, ethnicity, and NIH research awards. Science 2011;333(6045):1015–9.
13. Prasad JM, Shipley MT, Rogers TB, Puche AC. National Institutes of Health (NIH) grant awards: does past performance predict future success? Palgrave Communications 2020;6(1):54.
14. Hong L, Page SE. Groups of diverse problem solvers can outperform groups of high-ability problem solvers. Proc Natl Acad Sci 2004;101(46):16385–9.
15. Rock D, Grant H. Why diverse teams are smarter [Internet]. Harv Bus Rev 2016. Available from: https://hbr.org/2016/11/why-diverse-teams-are-smarter.
16. Academy of Nutrition and Dietetics. About us. 2020 [Internet] [cited 2021 Jan 21]. Available from: https://www.eatrightpro.org/about-us.
17. Academy of Nutrition and Dietetics. Registered dietitian (RD) and registered dietitian nutritionist (RDN) by demographics. 2021 [Internet] [cited 2021 Jan 21]. Available from: https://www.cdrnet.org/registry-statistics-new?id=1779&actionxm=ByDemographics.
18. American Society for Nutrition. Mission & bylaws. 2020 [Internet] [cited 2021 Jan 21]. Available from: https://nutrition.org/about-asn/mission-and-bylaws/.
19. The Obesity Society. About us. 2020 [Internet] [cited 2021 Jan 21]. Available from: https://www.obesity.org/.
20. Pew Research Social Trends and Demographics. Women and men in STEM often at odds over workplace equity. 2018 [Internet][cited 2021 Jan 21]. Available from: https://www.pewsocialtrends.org/2018/01/09/women-in-stem-see-more-gender-disparities-at-work-especially-those-in-computer-jobs-majority-male-workplaces/.