Weighing in on Residents' Body Mass Index: A Teachable Moment for Physicians and Patients Alike?

Felipe Lobelo, MD, PhD, FAHA
Isabel Garcia de Quevedo, MSPH

Physician health is important not just for the individual practitioner and medical community as a whole, but also because patients and the general population may benefit from having health-conscious physicians. The potential role that physicians' physical and emotional health may have on their patients' health has been of interest for more than 3 decades. Strong associations have been consistently found between providers' self-reported lifestyle habits and their related preventive practices—the "Healthy Doctor–Healthy Patient" relationship.[1–3]

For example, physicians who do not smoke are more likely to encourage patients to quit smoking,[4] and physically active doctors are on average 2 to 5 times more likely to provide exercise counseling to their patients.[5] Even physicians who are trying to eat healthier, quit smoking, or starting to exercise have shown to be more confident and more likely to draw from their own experience when counseling patients.[6] From objective electronic health record data, patients whose physicians were adherent with 8 different preventive practices were significantly more likely to also have undergone these preventive measures than patients with nonadherent physicians.[7] Among eligible patients whose physician had received the influenza vaccine, 49% received flu vaccines as compared with 43% of patients whose physicians did not receive the vaccine.

As the use of electronic medical record systems continues to increase, we expect to see more studies objectively demonstrating the Healthy Doctor–Healthy Patient concept for a variety of preventive health practices. These data can help guide interventions to improve the health and well-being of both providers and the general population through prevention-oriented programs.

Both authors are with the National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention. **Felipe Lobelo, MD, PhD, FAHA,** is Medical Epidemiologist, Division of Diabetes Translation; and **Isabel Garcia de Quevedo, MSPH,** is ORISE Fellow, Division of Nutrition, Physical Activity and Obesity.

The findings and conclusions in this article are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

Corresponding author: Felipe Lobelo, MD, PhD, FAHA, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, 4770 Buford Highway NE, MS K-40, Atlanta, GA 30341, 770.488.5737, rlobelo@cdc.gov

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In this issue of the *Journal of Graduate Medical Education*, Zonfrillo and colleagues[8] report the results of both cross-sectional and longitudinal analyses of medical and surgical residents' weight and health status. Residents' diet, physical activity, body mass index (BMI), and blood pressure were assessed at the beginning of postgraduate year (PGY) 1, 2, or 3 (N = 375). A smaller group (n = 93) was assessed repeatedly between 2006 and 2008. Although not a representative sample of residents—the study was conducted in 2 academic medical centers in the Eastern and Western United States and had a 35% response rate—this is 1 of very few studies to have followed weight-related behaviors and objectively assessed blood pressure and BMI trajectories of residents during the challenging training years.

Previous reports have shown that, as a group, physicians tend to be healthier than the general population.[1–3] This was also true in the current study for the most part. When compared to a nationally representative sample matched by age, sex, and education, prevalence of being overweight was significantly lower for PGY-1 and PGY-2 residents, but not for PGY-3 residents. As the authors indicate, this finding could be partially explained by differential sampling and study participation selection bias. However, it is important to note that, in this longitudinal cohort, mean BMI between PGY-1 and PGY-3 increased from 23.4 to 23.9 kg/m^2 and the prevalence of being overweight increased from 12% to 24%. Though not statistically significant, perhaps owing to the limited sample and study power, these results are still of interest.

First, this reminds us that physicians are, after all, exposed to the same "obesogenic" environment[9] as the general population. The demanding clinical training years pose particular challenges to maintaining healthy eating habits, adequate sleep, and active lifestyles—all recognized risk factors for weight gain.[9,10] Recurrent positive energy balances of a relatively small magnitude (approximately 100 to 200 calories a day), coupled with diet quality and other underlying factors, are responsible for the 1 to 2 lb or 0.2 to 0.3 kg/m^2 of BMI that the average US adult gains per year. Important underlying factors for weight gain include chronic low-grade inflammation, metabolically active muscle mass, cardiorespiratory fitness, insulin sensitivity,

and epigenetic influences.[10] In this sense, residents appear to mirror trends seen in the general population. However, these underlying factors are potentially modifiable, and individual responsibility to prioritize healthy habits plays an important role in avoiding weight gain.

Although their clinical applicability needs to be tested, a growing array of tools and technologic advances, such as wearable monitors and smartphone apps to track activity, diet quality, overall caloric balance, and even sleep on noncall days, could help to engage residents in monitoring and understanding their lifestyle habits.[11] Teaching institutions and graduate medical education (GME) programs might consider offering options for residents and the hospital community at large so that the "healthy choice becomes an easy choice." Research shows that offering structured interventions can be effective in helping physicians-in-training manage stress and improve concentration, mental health, and quality of life.[12] The "no pain, no gain" mentality many physicians experienced during their clinical training years ago is giving way to a "smarter" approach in which life balance and wellness are an integral part of clinical training. Hospitals and medical schools have begun to institute innovative programs to promote healthy eating,[13,14] although options to promote physical activity are limited and remain a critical area for improvement. Targeted research can help to identify appropriate programs and interventions that can be delivered for GME and undergraduate medical settings. The Diabetes Prevention Program,[15] effective in achieving moderate (5% to 7%) weight loss, and soccer interventions to improve cardiovascular disease risk[16] are examples of traditional research programs that could be adapted to GME and medical school settings. The data provided by Zonfrillo and colleagues[8] support the idea that worksite-style wellness programs should become a norm in academic institutions.

The study also reports that almost half of residents who were overweight actually self-classified their weight as normal. It is well known that individuals tend to underestimate their weight and overestimate their height.[17] In this respect, residents again mirror trends in the general population. These data reemphasize the importance of routinely assessing BMI objectively, as well as physical activity and diet, in clinical practice. Clearly, our clinical "eye-balling" is not good enough for ourselves or our patients.

It is important to note that the concept of weight bias—negative attitudes toward overweight individuals—cuts both ways. Research shows that physicians exhibit weight bias toward patients[18] just as patients do toward overweight physicians.[19] In addressing barriers to maintain healthy behaviors, clinicians, including residents, may find that revealing their own personal experience may serve as a less threatening conversation starter. This approach could help shift the discussion from one solely focused on BMI to one that emphasizes more positive diet and activity messages. Residents' experiences "self-tracking" their own lifestyle behaviors, coupled with targeted medical education interventions emphasizing the strong connection between physician behaviors and patient practices, may better prepare residents to deliver "lifestyle medicine"[20] to future patients. Despite recent initiatives, lifestyle medicine concepts remain relatively neglected in undergraduate and GME programs; this constitutes a ripe area for educational innovation.

The changing landscape of health care in the United States, which is increasingly focused on prevention-oriented systems, needs to be complemented by a health care workforce that understands the value of prevention and practices it themselves. Lower credibility, self-efficacy, knowledge, and the ability to motivate patients among physicians "not practicing what they preach" will undoubtedly hinder the chances of success for many of the current prevention efforts.

History suggests that enlightened physicians can have a substantial impact. Once the health risks associated with smoking became clear, physicians became early adopters of antismoking efforts. Lower rates of smoking among physicians and medical students preceded similar trends in the general population.[21] Just as physicians were not the sole cause of declining smoking rates, they alone will not solve the inactivity and obesity problems we face. However, physicians can play an important part in the solution, becoming once again early adopters of healthy activity and diet behaviors and, in turn, role models for their patients and communities. Our health, and that of our patients, can greatly benefit from it.

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