

## Let food be thy knowledge gap: the lack of nutrition education in medical curricula

## Nourrissons les lacunes de connaissances : le manque d'éducation nutritionnelle dans le cursus médical

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Nowhere but the hospital would a milkshake laden with glucose syrup, sugar, and canola oil be considered adequate nutrition. I recall inspecting the label of a “nutritional” beverage in a rehabilitation center and was stunned that these were among the top five ingredients. The quote attributed to Hippocrates, “Let food be thy medicine, and let medicine be thy food,” sprang to mind. A naively curious first-year student, I asked the physician why we encourage patients to drink these rather than more nutritious options.

“It’s better to just get the calories in than worry about nutrition.” Over the past four years, numerous preceptors have reiterated this principle during my undergraduate medical education.

Maybe we *should* be worried about nutrition. Calorie density is crucial, especially in patients with poor oral intake, but must nutrition be sacrificed? Nutrition is treated as a pesky afterthought when developing both hospital menus and medical curricula, rather than a pillar of modern medicine.

Trainees lack education in the complex, expanding science that informs dietary rhetoric despite studies showing that dietary education is crucial to provide trainees the skillset to include diet in treatment plans.<sup>1</sup> A 2019 meta-analysis concluded that nutrition is insufficiently incorporated into medical education, and trainees are not supported to provide high-quality, effective nutrition care.<sup>2</sup> Compared to standard medical curricula, trials of dedicated hands-on

cooking and nutrition education showed success in both improving nutritional knowledge of medical students and increasing the value that they place on proper diet.<sup>3</sup> But the question remains: how much value should be placed on diet?

The United States Global Burden of Disease Risk Factor Estimate from 1990 to 2016 revealed that diet was the leading cause of death, with dietary risks accounting for 529, 299 deaths in 2016 alone.<sup>4</sup> Professors (rightly) spend many hours harping on the risks of tobacco, but smoking declined by 42.8% during the study period.<sup>4</sup> Meanwhile, high fasting plasma glucose and high body mass index increased by 76% and 53.2%, respectively. Yet academic physicians still routinely brush off dietary education by sticking the catch-all phrase “lifestyle modification” on their slides.<sup>4</sup> Medical schools need to prepare students for challenges on the horizon rather than letting lecture material go stale.

Physicians avoid diving deep into the topic of diet, both with patients and while passing the torch to the next generation of physicians because the lessons were not passed on to them as trainees. Myriad factors contribute to the paucity of nutrition teaching (and nutritious options for patients): time constraints, budgets, and the lack of immediate, tangible results in preventative medicine. I contend that an under-appreciated reason is that physicians are ashamed to admit that they lack the knowledge due to gaps in medical education. The

discomfort I felt every time a patient complained about the hospital food drove me to seek additional certification in nutrition so that I don't spend the rest of my career dodging questions about food—or prescribing those milkshakes if I can help it.

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## References

1. Jaroudi SS, Sessions WS, Wang VS et al. Impact of culinary medicine elective on medical students' culinary knowledge and skills. *Proc (Bayl Univ Med Cent)* 2018 Oct 2 (Vol. 31, No. 4, pp. 439-442). <https://doi.org/10.1080/08998280.2018.1473742>
2. Crowley J, Ball L, Hiddink GJ. Nutrition in medical education: a systematic review. *Lancet Planet. Health.* 2019 Sep 1;3(9):e379-89. [https://doi.org/10.1016/S2542-5196\(19\)30171-8](https://doi.org/10.1016/S2542-5196(19)30171-8)
3. Monlezun DJ, Leong B, Joo E, Birkhead AG, Sarris L, Harlan TS. Novel longitudinal and propensity score matched analysis of hands-on cooking and nutrition education versus traditional clinical education among 627 medical students. *APMHC.* 2015 Sep 8;2015. <https://doi.org/10.1155/2015/656780>
4. Mokdad AH, Ballestros K, Echko M et al. The state of US health, 1990-2016: burden of diseases, injuries, and risk factors among US states. *Jama.* 2018 Apr 10;319(14):1444-72. <https://doi.org/10.1001/jama.2018.0158>

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