

The Mandate of Nutritional Courses for Medical Students: A Consideration

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Abstract

Unhealthy lifestyle choices and eating habits are the primary factors contributing to chronic diseases. Many diseases are associated with obesity and an unhealthy lifestyle. An unhealthy lifestyle has contributed to nearly half of U.S. deaths from heart disease, stroke, and type 2 diabetes. Modifications in lifestyle choices can significantly decrease coronary artery disease (CAD), stroke, diabetes, and colon cancer. A recent statistic suggests that although 94 percent of physicians recognize the importance of diet, only 14 percent felt sufficiently trained in the topic [1].

Physicians possess a critical deficiency in nutrition knowledge, and there exists a gap in medical education pertaining to nutrition. A study reflected only 40 medical schools in the U.S. required classes on nutrition, and medical students on average received only 23.9 contact hours of nutrition instruction during medical school [2]. The same study reflected that 88 percent of instructors expressed the need for additional nutrition instruction at their institutions. This lack of knowledge does a disservice to physicians, medical students, and patients.

Nutritional education is noticeably insufficient, if it exists at all, both in medical schools and among practicing physicians [3]. Based on the studies, it is clear that knowledge in this area is insufficient. Therefore, the purpose of this literature review is to reveal the lack of nutrition education in medical schools, as well as review the importance of mandating it.

Keywords: *Nutrition, Medical school, Mandating courses*

Correlation between lifestyle modification and diseases

Maintaining a healthy lifestyle and adopting proper eating habits can offer protection against numerous chronic noncommunicable diseases and can reverse or even cure some chronic diseases. Requiring education on nutrition in medical school would ensure that every physician receives exposure to this topic before entering residency. It is crucial to initiate this education during medical school, prior to students starting their clinical rotations and becoming doctors.

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The prevalence of obesity in the United States was 42.4% in 2017 [4]. Obesity contributes to many diseases and disease processes. It is important to recognize that modifications in lifestyle choices can significantly decrease coronary artery disease (CAD), stroke, diabetes, and colon cancer [5]. Diet-related conditions have led to nearly half of U.S. deaths from heart disease, stroke, and type 2 diabetes [6]. As a result, obesity is indirectly one of the leading causes of death in the United States. Healthcare professionals lacking sufficient knowledge about nutrition's role in disease lose out on a treatment modality for addressing, preventing, and potentially reversing chronic conditions.

Can doctors help their patients with nutritional information if they do give the correct nutritional advice? It has been found that doctors can improve their patients' dietary habits by providing the proper nutritional advice and education [7][8]. Moreover, the food humans put into their bodies directly impacts their overall health. Doctors can provide successful nutritional advice without being a nutritionist. The major challenges and barriers for doctors providing nutritional advice are contested space and time constraints. On average, students received 23.9 contact hours of nutrition instruction during medical school [9]. Only 40 schools required the minimum 25 hours recommended by the National Academy of Sciences. Most instructors (88%) expressed the need for additional nutrition instruction at their institutions [9].

The amount of nutrition education in medical schools remains inadequate [9]. The limited nutritional information taught in medical schools and limited continuing medical education in nutrition does a disservice to patients. An unhealthy lifestyle and poor diet have been linked to numerous chronic diseases. A poor diet is either an insufficient intake of essential nutrients or an imbalanced distribution of these nutrients. Such diets often consist of high quantities of sugars, saturated fats, and heavily processed foods. Therefore, a proper diet could be used in conjunction with medications to improve patients' health. Unhealthy eating habits and lifestyle choices are associated with chronic diseases, yet physicians frequently lack the necessary knowledge and resources to offer patients accurate information and education on proper nutrition and lifestyle modifications.

Lack of nutritional education

Despite limited contact hours in medical school, it was found that doctors often overstated their knowledge regarding nutrition [10]. In a study done in 2011, Parker concluded that most physicians overstated what they knew and many did not know much at all [10]. The issue is there are no governing rules regarding the hours required or courses needed in nutrition for

a medical student or a physician. Medical schools dedicate less than 25 hours to this subject over five years, with some schools completing zero hours [9].

Although nutrition plays an important role in our health, education regarding this topic is notably insufficient. It is clear that physicians' knowledge in this area is lacking [1]. In a recent study, Canadian medical students agreed they would prefer if their undergraduate programs dedicated more education to nutrition [11]. Physicians may also be more inclined to eat healthier themselves if they knew more about nutrition. There is evidence that if doctors practice healthier habits themselves, they are more likely to counsel their patients about those habits [12]. Lastly, education leads to increased awareness. If doctors knew the real effects of poor nutrition, they may advocate more for lifestyle modifications rather than just prescribing medication. If doctors are not fully aware of the extent of diet-related diseases and preventative-based medicine, they cannot transfer this message effectively to their patients. 94 percent of physicians recognize the importance of diet, although only 14 percent felt trained and knowledgeable enough to offer this to their patients [1]. An evident gap exists within the healthcare system and medical school curriculum concerning nutrition education. There should be a heightened emphasis on promoting awareness of preventive medicine knowledge.

The deficiency in physicians' understanding of nutrition primarily arises from inadequate instruction in medical school and a lack of mandatory post-graduate education on the topic. Medical schools often do not offer mandatory courses on nutrition. The courses tend to focus on symptoms, diagnoses, and treatment of disorders and diseases, often disregarding aspects of prevention and proactive management. This is a probable explanation for physicians' limited knowledge in the field of nutrition.

Alternative perspective: Opposing Mandated Nutritional Education

Another question is, even if doctors did have adequate nutritional training, do they have time to deliver this information? If extra time is required, how would this impact physicians who already have limited time with their patients? It is important to always explore opposing views. It can be an argument that physicians are not nutritionists; hence why there is a separate field and degree for this altogether. On the contrary, physicians do have a duty to act in the best interest of the patient and a poor diet can directly impact patients' well-being [13]. A patient's unhealthy eating habits can directly influence their well-being [13]. While physicians may not have control over their patients' actions, it remains imperative that we educate patients about the impact of their diet choices on their health.

The task of distinguishing between "healthy" and "unhealthy" foods is challenging due to the constantly changing and evolving nature of nutritional information. The vast amount of nutrition-related knowledge can be overwhelming, making it challenging to design a course that remains current given the rapid evolution of this field. Nutrition is intricate, and simply advising patients to consume more fruits and vegetables falls short of addressing the complexity. Often, there is no single, universally applicable solution. Customizing nutrition plans for patients is a time-intensive process, typically requiring more time than the standard 15-minute duration of a general practice appointment [14].

80% of physicians across all specialties already report being fully occupied or overextended [15]. This situation underscores the potential benefit of referring patients to specialized nutritionists or dietitians. These professionals possess targeted expertise in this area. Obtaining a dietetics degree entails completing either a 4-year Bachelor's program or a 2-year Master's program, which cultivates proficiency and enables accreditation for delivering dietary counseling [14]. Consequently, it becomes comprehensible why doctors express reservations about their competence and knowledge in providing effective, person-centered nutrition counseling [16]. On the contrary, it has been shown that medical students want more education on nutrition and regardless of time constraints, it is a topic that needs to be discussed with patients.

Conclusion

The amount of nutritional education in medical schools can vary based on various factors, including curriculum design, available resources, and historical emphasis on other medical topics. Traditional medical education has historically been focused on treating and diagnosing diseases rather than preventative measures. Medical school is already packed with an immense number of topics that need to be covered. Therefore, nutritional education may not always be prioritized due to these constraints. As a counterargument, the field of nutrition can be complex, with evolving recommendations. Therefore, it may be difficult to mandate courses in residency, therefore it should be taught in medical school.

Nutrition plays a pivotal role in both a physician's and a patient's health. Health can be further defined as a state of "physical, mental, and social well-being". Physicians are defined as professionals who are concerned with "promoting, maintaining, and restoring health". Therefore, physicians should have more education courses on how a proper diet can promote and maintain health. In many countries, funding, time, and resources are skewed towards rewarding 'treatment' with little or no financial reward for 'prevention'.

In closing, medical schools should have mandated education regarding nutrition and the direct impact it has on our health. Medical students should receive courses on nutrition before being in a clinical setting. While formal education on nutrition in medical school may be limited, many medical professionals pursue additional nutrition education through continuing medical education courses.

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