COMMENTARY

Is There a Lack of Support for Whole-Food, Plant-Based Diets in the Medical Community?

Maximilian Andreas Storz, MD¹ Perm J 2019;23:18-068

E-pub: 12/20/2018 https://doi.org/10.7812/TPP/18-068

ABSTRACT

Since the early 2000s, plant-based nutrition has increased in popularity in the general population. Kaiser Permanente significantly contributes to this development by promoting plant-based diets and by continuously incorporating plant-based nutrition on the front lines with their dietary recommendations. Despite a continuously growing body of evidence and the meticulous work of renowned experts in this field worldwide, the latest findings in this area have not found their way into US national dietetic guidelines.

We must ask ourselves why this is the case, given the numerous advantages and health benefits of a whole-food, plant-based diet. What role do physicians play in this context? Is there potentially a lack of support for whole-food, plant-based diets and comprehensive lifestyle change programs in the medical community?

INTRODUCTION

A whole-food, plant-based diet (PBD) is a diet rich in vegetables, legumes, fruits, whole grains, nuts, and seeds. Meat, poultry, fish, dairy products, and processed foods are heavily restricted. PBDs have been associated with weight loss, ^{1,2} a lower prevalence of hypertension^{3,4} and diabetes, ^{5,6} and a reduced risk of heart disease. ^{7,8} A recent meta-analysis found a significant protective effect of a vegan diet (where all animal products are excluded) in the incidence of total cancer. ⁹ Moreover, studies suggest that a PBD may be beneficial in the treatment of several chronic diseases such as rheumatoid arthritis. ^{10,11}

Kaiser Permanente has significantly promoted plant-based nutrition and has argued in favor of the large number of benefits of PBDs. ¹² The 2013 report by Tuso et al¹³ reviewing the benefits of PBDs proposed that physicians "should consider recommending a plant-based diet to all their patients." They concluded that a change in Western culture's mindset "from 'live to eat' to 'eat to live'" is vital to reversing the global obesity epidemic.

Although current evidence supports the health advantages of plant-based nutrition, implementing it into daily practice remains a challenge. Initiating a constructive dialogue with patients about this topic often resembles a balancing act requiring empathy and subtlety on the one hand and perseverance and clearly defined targets on the other. To facilitate this process, the 2016

report by Hever¹⁴ provides a 6-step guide to initiate and maintain a nutritional dialogue with patients. The author concluded that eating a PBD resembles a "win-win situation" for health care practitioners and patients alike. Plant-based nutrition is no longer a marginal phenomenon and is gradually being seen as a considerable alternative to strictly pharmaceutical therapies.

Worldwide renowned experts such as Dean Ornish, MD; Neal Barnard, MD; and Caldwell B Esselstyn Jr, MD, have provided valuable scientific evidence and meticulously advocate for plant-based nutrition, along with other comprehensive lifestyle changes, but their recommendations have not yet found their way into national guidelines. 15,16 How can we explain why thorough counseling on whole-food, plant-based nutrition is currently not standard procedure in the treatment of cardiovascular and chronic diseases? Regarding the latest scientific findings and the numerous advantages and health benefits of these diets, we must ask ourselves why, precisely, this is the case and what role physicians play in that context.

The crucial questions are: Is there potentially a lack of support for PBDs among medical professionals? Which factors impede the advance of comprehensive lifestyle change programs?

It is likely that some physicians would not officially admit recommending or adhering to a PBD to avoid negative or, in some cases, even pejorative comments from colleagues, researchers, and patients. According to Campbell, ¹⁷ medical science is "deeply suspicious of everything claiming to be a panacea." There also is still considerable insecurity about PBDs in the medical community. Unfortunately, this insecurity too often results in an unfounded rejection of PBDs. We will discuss 3 of the main factors contributing to this insecurity.

THE TIME FACTOR

Counseling patients on how to adopt a lifestyle change and how to successfully switch to a PBD requires time and attention to detail. Such a task may not be completed in a few minutes but often requires many hours and repetitive sessions. Simply advising a patient to consume more vegetables while avoiding unhealthy foods, such as processed red meats and refined sugars, is not the key to success. It is vital that patients understand and internalize what caused their disease and why. Only then may they be empowered to change their habits and unhealthy attitudes. However, physicians who see 30 or more patients a day simply lack the time to do this.

A 2017 study by Devries et al¹⁸ revealed that more than 50% of all cardiologists participating in their survey spent less than 3 minutes on discussing nutrition during an average patient appointment. Moreover, in the hospital setting schedules are rigorously timed. Consequently, even the most motivated and enthusiastic practitioner will encounter problems in finding sufficient time for thoroughly counseling patients. The fact that health insurance companies usually do not reimburse for nutritional counseling further complicates this situation. To boost the popularity of PBDs among physicians and to increase

Author Affiliations

¹ Baden-Württemberg, Germany

Corresponding Author

Maximilian Andreas Storz, MD (storzm815@gmail.com)

Keywords: lifestyle medicine, nutrition education, nutrition policy, medical education, plant-based diet, practice barriers

the frequency of nutrition counseling, it is critical that a more attractive framework be created to allow physicians to spend more time on this important task. As long as many physicians are unable to witness the health benefits of PBDs because of a lack of time, the insecurity with this therapy will prevail.

THE TRAINING FACTOR

Many physicians possess insufficient knowledge about nutrition and seem to have an insufficient background to counsel patients. Devries et al¹⁸ revealed a deficiency of nutrition education and practice among cardiovascular specialists: 90% of the cardiologists participating in their survey reported receiving only minimal or no nutrition education during fellowship training (33% and 57%, respectively). Additionally, nearly one-third did not recall receiving nutrition education at all during medical school. This deficient situation also has been outlined in 2010 by Adams et al.¹⁹

Adams et al¹⁹ also found in their 2009 survey that US medical students overall received only 19.6 contact hours of nutrition instruction during their time at medical school. As measured by nutrition's importance for cardiovascular health, this number already resembles a small amount of time, and it even declined compared with a survey by the same researchers in 2004.¹⁹ In another study in 2015, the authors affirmed their previous findings by concluding that "many US medical schools still fail to prepare future physicians for everyday nutrition challenges in clinical practice." ²⁰

Weinsier et al²¹ reported in 1988 that the number of medical students considering nutrition important for their career decreased by 15% during medical school. Reviewing these findings, we must conclude that a negative trend is taking place and that we are missing the chance to educate medical students in the health effects of PBDs at crucial points in their training. The percentage of vegetarians among medical students also seems to decline during medical school years. A study by Spencer et al²² highlighted that freshman do not maintain their vegetarian diet during medical school despite an increase in medical education. On the basis of that, it seems that the perceived relevance of nutrition and nutrition counseling by US medical students declines during that period.23

A potential reason for this lack of knowledge might be that recent study findings have not yet found their way into medical textbooks and teaching resources. Too often, educational resources contain only one-sided information about PBDs. Potential benefits are rarely outlined in detail. Instead, generalized and abstract terms such as "protective" are used. As a corollary, students only develop vague ideas about the power of plant-based nutrition.

Nutritional education must be comprehensive and balanced. Students should be taught about both the health benefits and potential risks of a whole-food PBD. Potential deficiencies in macronutrients and micronutrients, such as calcium and iron, caused by following a poorly constructed PBD, must be addressed. It is also essential to enable students to differentiate between a healthy and an unhealthy PBD.²⁴ Lastly, students should learn that certain patient groups (such as patients with kidney disease or thyroid disease, or patients with severe obesity) need close supervision for medical reasons when changing to a whole-food PBD.

It seems that some US medical schools have now embarked on rigorous curricular reforms to allow nutrition to "become a mainstream component of medical education."25 The integration of lifestyle medicine, including nutrition, into modern medical education and interdisciplinary team-based learning opportunities is particularly worth mentioning here. The course "Food Matters for Doctors" from the University of Minnesota serves as a great example.26 Such interdisciplinary classes, which pair teaching about nutritional issues with hands-on experience preparing nutritious food, allow for a shift from abstract theoretical learning to solution-based, real-world experience. Instead of primarily memorizing enzymes in metabolic pathways, students are actively empowered to have practical and meaningful conversations about nutrition at the bedside.

Another player worth mentioning in this context is the American College of Lifestyle Medicine, ²⁷ which emphasizes the use of lifestyle interventions in the treatment of disease. Their educational resources and classes "specifically tailored for medical students" ²⁷ may also contribute to a tectonic shift in the current nutritional education of prospective physicians.

THE ECONOMIC FACTOR

Some studies associate PBDs with a reduction in "medication needs." 14,28,29 However, at least to some extent, patients not only expect physicians to listen to their history and complaints but also to treat them "properly" by prescribing medication. Modern serial medical dramas on television, hospital movies, and pharmaceutical advertisements suggest and insinuate that even the most complex disease can be easily cured by taking a single pill, further contributing to patient expectations toward physicians. For some people it is hard to understand that implementing a PBD, and hence adopting a lifestyle change, is necessary when potentially comparable benefits could be achieved by taking a medication. Creating a well-balanced, nutrient-dense meal plan and avoiding highly processed products, such as refined white sugar and red meat, is undoubtedly more demanding than simply taking a pill once or twice a day. As a corollary, a physician that prefers to encourage lifestyle changes over rapidly prescribing medication might lose a certain amount of patients who, in turn, opt for the easiest achievable way to treat their disease. Hence, there is also a potential underlying economic motivation in why some physicians may not regularly counsel patients on PBDs. Talking about economic factors in this context is necessary because it is undeniable that financial interests play a role in the ongoing debate about plant-based nutrition. A shift from corporate-funded, industry-tailored recommendations to dietetic guidelines "beholden only to [...] the patients they serve"17 will be necessary to realize changes.

CONCLUSION

To my knowledge, there is no substantiated data about the number of physicians recommending a PBD to their patients. Reviewing some of the recent studies, it is obvious that plant-based nutrition has not yet found its way into the standard treatment repertoire of many practitioners. Although the 3 factors of time, training, and economic interests discussed above represent only a few of the many variables influencing the current situation, they also constitute potential starting points to tackle this development.

By reducing physicians' insecurity and skepticism toward plant-based nutrition,

more and more practitioners may be convinced to implement this cost-efficient yet highly effective treatment option in their daily clinical routine. It is vital to better educate the future generations of physicians today's medical students—in this area. Online resources and modern technologies may play a key role here. The Physicians Committee for Responsible Medicine, a nonprofit organization founded by Neal Barnard, MD, provides a wide array of free online resources on their homepage.³⁰ Their nutrition app "The Nutrition Guide for Clinicians" is particularly worth mentioning. Additional useful resources include the website "Nutrition Facts" by Michael Greger, MD, and "The Plantrician Project."31,32

Politicians, health care providers, and government administrations must create appropriate frameworks and conditions and provide a greater economic incentive to support motivated physicians in PBD counseling. Although this might involve considerable effort, time, and unpleasant dialogues with industry and capital interests, it will ultimately contribute to an improvement in public and environmental health. Plant-based nutrition might be the key to central issues of our time, such as the global obesity epidemic, exploding health care expenditures, and environmental destruction.

Because nutrition is inextricably connected to human health, physicians play a key role in further promoting and spreading the knowledge about PBDs.³³ Interdisciplinary collaboration with nutrition educators and dieticians is necessary to reduce the insecurity toward PBDs in the medical community. As Benjamin Franklin is purported to have said, "an investment in knowledge pays the best interest." Once physicians educate themselves further in plant-based nutrition, the medical community may start to appreciate this powerful tool and use it along with pharmacotherapy to provide better health treatment. ❖

Disclosure Statement

The author(s) have no conflicts of interest to disclose

How to Cite this Article

Storz MA. Is there a lack of support for whole-food, plant-based diets in the medical community? Perm J 2019;23:18-068. DOI: https://doi.org/10.7812/TPP/18-068

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