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Culinary Medicine: A Nourishing Introduction

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When you flip on the television, scroll through social media, or browse the latest headlines, you'll find that one pervasive theme cuts across all sectors: nutrition. Each source offers a purported "miracle diet" or "superfood," suggesting individuals can meet their dietary goals with a single change.

Yet, in reality, nutritional improvements and weight loss diets are far more nuanced. Challenges related to poor nutrition and its long-term consequences are well studied, but related medical complications continue to grow. A recent study of chronic conditions and the global burden of disease found a 50% increase in metabolic risk factors that contribute to hypertension, diabetes, high cholesterol, and elevated body mass index (BMI) since 1990. Dietary discretion contributes to preventable medical conditions and ultimately causes increased global mortality through associated chronic conditions. This study suggests that trends will continue to worsen without intervention, potentially resulting in a plateau or decline in global life expectancy.

Looking specifically at the United States, one can speculate how diet is contributing to chronic disease. According to the CDC, just 12.3% of Americans consume the recommended intake of fruits, and only 10% adhere to recommended vegetable consumption. It should be noted that social determinants of health likely play a major role in these numbers, specifically related to both access and affordability. Though there are many approaches to address this problem, one major opportunity lies in an expanding field: culinary medicine.

Culinary medicine is the utilization of evidence-based practices to combine patient-centered nutrition and lifestyle discussions with a patient's prescriptive treatment. The aim is to build a patient's nutrition and culinary knowledge to cook or eat meals that fit the patient's needs, abilities, finances, and background. It allows the doctor and patient to create a treatment plan that utilizes nutrition to benefit disease management or prevent disease development. Since culinary medicine is patient-focused, proposed diets could range from Mediterranean to vegetarian to others that cater to the patient's needs. Yet, these diets alone are not a one-size-fits-all solution, even if they can be beneficial for specific patient populations. This is where it is important to have conversations with patients about their specific goals.

Culinary medicine can be practiced in a variety of settings beyond appointments with physicians. Some patients managing chronic diseases or new diagnoses may present in the hospital. In these settings, a hospital-based nutritionist may meet with the patient, create a custom diet, and educate the patient. Community nutritionists, on the other hand, may focus on broader initiatives, collaborate with community programs, discuss nutritional habits in the outpatient setting, and educate patients. Educating patients can include items such as understanding nutrition labels and the ingredients composing some of the processed food they eat. MyPlate, for example, has a helpful tool for providers to use to illustrate the amount of each major food group that individuals should consume.

Dieticians also play an important role as they can assess, diagnose, and treat nutritional issues in both settings, typically focusing on specialized nutrition counseling and preventive care. Culinary medicine complements each of these roles as it highlights the practical application of nutrition education to allow for a hands-on approach to healthy eating.

While culinary medicine offers an intriguing approach to patient care, potential barriers must be considered. First, there is the problem of nutrition and culinary medicine education in medical school. Given the broad nature of the medical school curriculum, it can be challenging to allocate adequate time for each subject. A recent systematic review of culinary medicine found varying institutional commitments and identified a potential gap in nutrition education for some medical students. A lack of education and knowledge likely leads to a lack of confidence and adequate skills to treat patients. In current practice, many clinicians do not discuss diets and nutrition during routine appointments. In addition, physicians also face time constraints and competing health priorities, devaluing patient nutrition history and education during the process of completing a patient's medical history and physical exam. However, nutritional risk factors are an important contributor to patient health and can lead to increased morbidity and decreased life expectancy. Each time a patient's deeply ingrained nutritional habits go unaddressed, there is an increasing possibility that their lifestyle practices could lead to early mortality. Yet we are hyper-focused on prescribing a statin when the NNT (number needed to treat) is 83 for a life saved.

However, potential obstacles to implementing culinary medicine into everyday practices cannot be ignored. Conversations are challenging because changes require addressing a patient's lifestyle habits, perceptions, and motivations for making an alteration. One way to begin the conversation is by asking the patient about their typical food consumption over the past six months, usually through a Food Frequency Questionnaire. Concerning the Mediterranean diet, the Food Frequency Questionnaire was evaluated against a short questionnaire developed in 2018 in Italy. The study demonstrated the potential utility of a short questionnaire in evaluating adherence to the diet and patient habits. Although more research is needed, this survey could

offer an efficient alternative for patients in outpatient settings, as food frequency questionnaires may be time-consuming. Other options include a 24-hour dietary recall, which can be utilized to acquire a detailed understanding of portion sizes, habits, and nutritional intake. All of these options offer a different approach to addressing the same problem. Overall, questionnaires facilitate patient engagement before a medical appointment, allowing a clinician to efficiently manage a meaningful conversation during a patient encounter, while the 24-hour dietary recall can allow for more direct engagement and follow-up.

Following either assessment, the physician should ask more focused questions about the patient's dietary concerns or goals. Motivational interviewing allows the physician to understand the patient's interest in making a change while simultaneously instilling confidence in the patient regardless of their current stage. Even if patients are not ready to make any adjustments, it is crucial to utilize motivational interviewing to open the door for patients to have these discussions in the future. Additionally, patient empowerment can encourage individuals to independently initiate conversations with their doctors, which demonstrates open communication, trust within the patient-provider relationship, and the desire for patients to play an active role in their health.

Another challenge is cost and insurance reimbursement. This is especially relevant as care and follow-up can be time-intensive. Typically, nutritional concerns are considered preventive (e.g., CPT 97802) and are reimbursed per unit at $38.15 for non-facility rates and $33.54 for facility rates in 2023. When patients have a variety of concerns that need to be addressed, physicians may be more incentivized to focus on those concerns with higher reimbursement rates. For the same patient, reimbursement could be three to four times higher if the focus of the conversation is shifted. This is because patients with multiple complex medical conditions can be billed utilizing different CPT codes, which are often reimbursed at a higher

rate. In order to gain broad acceptance, new CPT codes must be lobbied for an introduced that match the effort associated with such visits and education. Such an alteration would provide an increased incentive for clinicians to discuss nutrition with patients and offer the possibility of addressing lifestyle modifications before a patient falls victim to chronic diseases. It also allows for the patient to be referred to another provider as needed.

Note: Calculations were made via this link and downloading the associated data via CSV. The average reimbursement rate was determined for both facility and non-facility rates.

If it is determined that the doctor does not have the resources to manage a detailed nutritional conversation, they can continue to leverage multidisciplinary teams. This approach includes consulting a dietician or nutrition specialist to assist in this process. Furthermore, this approach allows both providers to practice at the top of their licensure, maximizing each of their skill sets. In addition to interdisciplinary teams, physicians and hospital teams can invest more in continuing medical education related to nutrition. While many institutions may have this structure in place, efforts should be made to ensure it is being organizationally standardized and utilized for all patients who could benefit.

The gap in nutritional care presents an opportunity for subspecialized physicians educated and practicing culinary medicine with the goal of reducing medical risks associated with diet and nutrition. Similar to the concerted efforts of smoking prevention in the 1990s, the promotion of diet and nutrition education has become a significant focus in healthcare. It holds the promise of bringing about tangible improvements for patients. While concerns regarding suboptimal diets persist, addressing the needs of these patients necessitates essential adjustments from current healthcare providers and deliberate educational initiatives for the next generation of

medical professionals. Through these proactive measures, there lies the potential for a meaningful and lasting impact on individual and public health.

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