Culinary Medicine Elective Pilot at the University of Michigan Medical School
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Background

Medical education historically has focused on physiology, pathophysiology, diagnostics, and therapy. While this knowledge base is critical for shaping competent physicians, it does not lend itself to having patient-centered conversations about lifestyle and health. Within the basic science curriculum, nutrition education focuses on balancing intake and output of macronutrients and micronutrients. Moreover, traditional nutritional counseling for patients operates on the often false premise of food security. Discussions about real food and an understanding of how patients nourish themselves are noticeably absent from the skill set medical students learn.¹

Culinary Medicine electives—hands-on experiences in which medical students learn to prepare the diets they may prescribe—have been created to remedy this gap in medical education.

Objectives

The elective’s goals are to:

1. Help students become more knowledgeable in discussing nutrition and food with their patients
2. Help students provide evidence-based nutritional guidance to patient populations with specific chronic conditions, such as heart disease and diabetes.

Methods

The Culinary Medicine elective taught at the University of Michigan is an abbreviated version of Tulane Medical School’s Cooking for Health Optimization with Patients (CHOP) curriculum.

A session on food insecurity was created by the co-authors to remedy the gap in medical education regarding the relevance of food insecurity to health. This session included a case-based discussion of the presenting features and consequences of food insecurity, followed by a panel with members of five local organizations addressing food insecurity in different dimensions, including community programs and policy. A 19-question survey was administered to students who attended to assess the efficacy of the session in improving knowledge about food insecurity.

This evaluation focuses on (1) the impact of the elective on participants’ self-reported knowledge base on health-oriented diets and comfort in counseling patients and (2) the impact of the food insecurity session on participants’ understanding of food insecurity.

Results

Students who enrolled in the culinary medicine elective felt that their knowledge base and comfort with counseling patients about the Mediterranean and DASH diets, portion control and carbohydrate counting for T2DM was improved by the end of the course. Students’ self-reports indicated that they achieved their goal of learning the evidence behind commonly prescribed diets. A number of students also learned new ways to discuss diet, nutrition, and food with overweight patients. All of the students who participated in the course would recommend the Culinary Medicine Elective to their peers.

Table 1. (left) Percent change in self-reported knowledge base and comfort counseling patients about the Mediterranean and DASH diets, portion control and carbohydrate counting after completing the University of Michigan Culinary Medicine Elective

Table 2. (below) Outcomes of food insecurity teaching session learning objectives based on self-reported assessment.

Conclusions

Qualitative and quantitative results from a pre-post survey based on responses from six student participants indicated that the elective improved self-reported knowledge base and comfort with counseling patients about the Mediterranean and DASH diets, portion control, and carbohydrate counting for T2DM. After course completion, students self-reports indicated that they anticipate incorporating more of the evidence behind commonly prescribed diets when counseling patients. Results from the survey specific to the food insecurity session based on responses from five participants demonstrated that students reported a deeper understanding of how food insecurity presents, what factors affect it, and how it connects to health. Students also reported an improvement in their comfort discussing access to food with patients who live in food-insecure areas and directing them to appropriate resources.

References