



“Culinary Encounters of the Socially-Distanced Kind” Teaching Culinary Medicine Virtually to 3rd Year Medical Students

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Introduction

Patients in West Virginia suffer from a high burden of disease. West Virginia has the highest prevalence of hypertension and adult obesity in the United States,² both of which can be impacted by nutrition. Although it is recognized that nutrition and lifestyle recommendations by physicians are helpful in encouraging healthy lifestyles, medical students have consistently expressed deficiencies in nutritional education throughout their training.¹ Similar to the emphasis on clinical medicine, sincere efforts have to be made to teach nutritional concepts and culinary principles to future physicians in a practical way that can be passed on to patients.

At WVUSoM, genuine efforts are being made to provide medical students with fundamental nutrition education to encourage and increase students' confidence in counseling patients on nutrition and healthy lifestyles. All second year medical students get an introduction to practical nutrition by learning non-medical efficacious low carb approach to metabolic syndrome with a one hour interactive lecture during Pharmacology.

Then, during third year orientation, medical students get a one hour lecture about the Mediterranean diet and general principles surrounding insulin resistance and pre-diabetes. Lastly, all third year medical students at WVU complete at least one additional Health Meets Food module and the corresponding teaching kitchen during a mid-block 4 hour afternoon teaching kitchen workshop. Usually these workshops are held on 4 separate 4-hour afternoon occasions on three campuses to accommodate the class of 110 students. They are held in person, and consist of groups of 30-35 students per session in the teaching kitchen.

For the fall 2020 semester, it was decided by school officials in mid-July that in-person teaching kitchens with 30-35 students was not advisable due to the increasing number of COVID cases in West Virginia. In light of COVID restrictions, the mid-block teaching kitchen and workshop was transformed into a virtual session to ensure that third year medical students still received nutrition education and would have the knowledge to make specific dietary recommendations to patients throughout their clinical rotations.

Methods

The population participating in the virtual mid-block teaching kitchen/workshop in July 2020 included 97 third year medical students from WVU SOM's Morgantown and Charleston campuses. The students were split into two separate groups of approximately 48 students to facilitate increased interaction between students and instructors. Each group was scheduled for a two hour session. The session leaders included two WVU SOM CCMS certified faculty members and one chef.

Prior to the virtual session on Zoom, students were instructed to complete the following modules online at Health Meets Food:

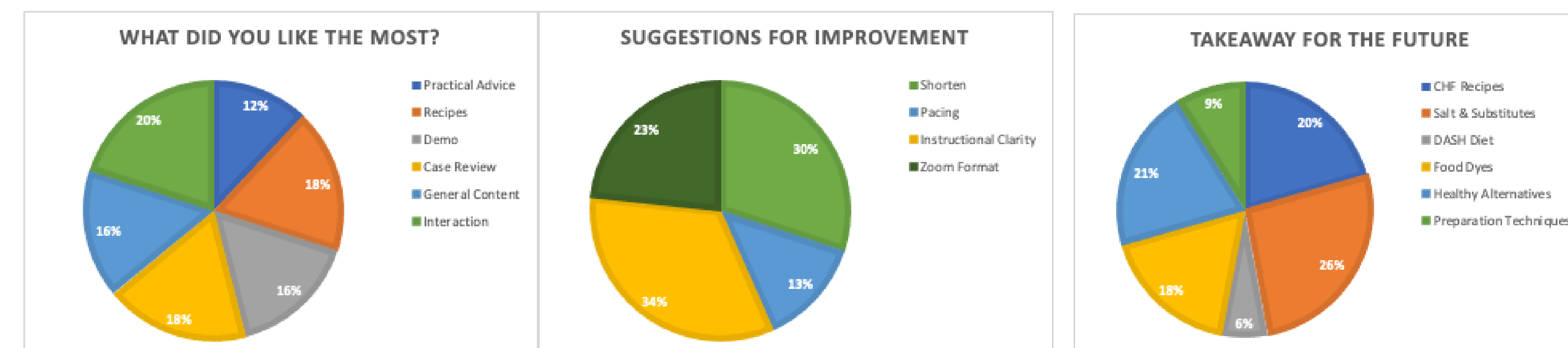
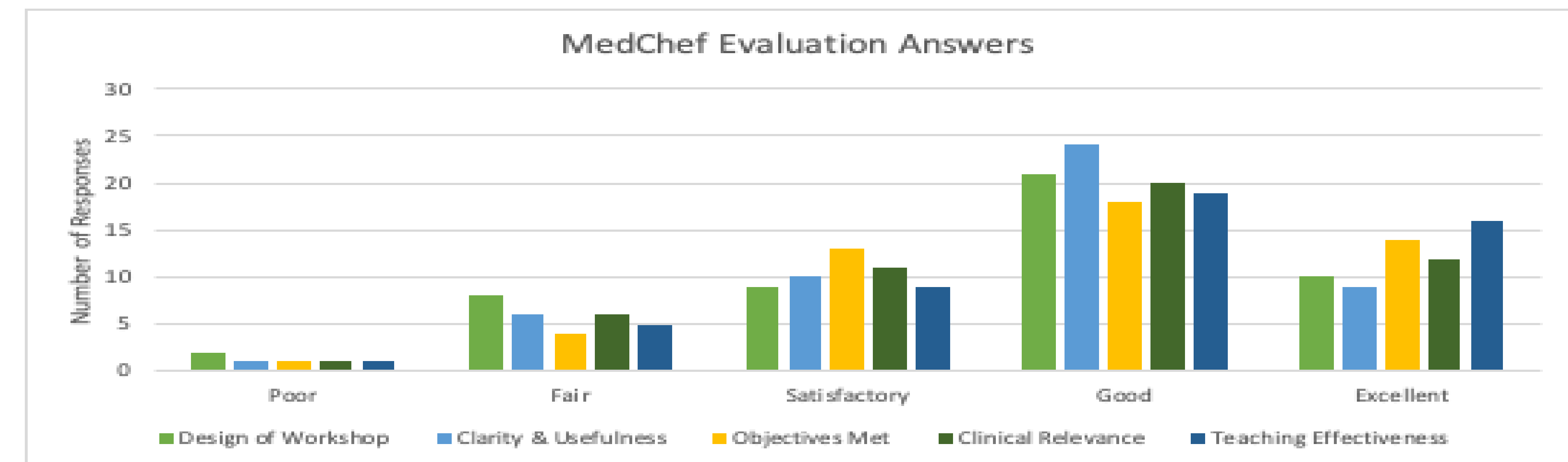
- Congestive Heart Failure
- Food and Neuro-cognition

Students were provided with the recipes that would be prepared during the session to allow them the opportunity to purchase the ingredients and prepare the recipes themselves.

During the class, the instructors facilitated a discussion of the modules, introduced the recipes, and the chef gave a knife skills demonstration. The medical students were given questions to discuss regarding the Health Meets Food modules in smaller groups by using virtual break-out rooms. They then returned to the large group to discuss the cases. After the workshop, students completed a voluntary post-workshop evaluation.

Results

- 52% of the students completed the post-workshop evaluation.
- Three free-text questions were answered by the students. The answers were then sorted into prevailing themes and are presented in graph format.
- Case review, recipes, practical advice and technique demonstrations were the most applauded.
- Students endorsed a need for better organization of the session and clarity of expectations.
- Understanding salt and salt substitutes and food swaps for health were the most popular patient advice tips for future use.



Main Takeaways for Future Virtual Workshops

Overall, the students were gracious in accepting the virtual format and expressed positive outcomes. Many felt that while a virtual teaching kitchen was by no means superior to an in-person experience, the socially distanced format still allowed attendees to participate in a meaningful way in nutrition education. Should an online, virtual approach to culinary medicine be utilized in the future, it is recommended that the instructional time be more structured and focused on high-yield topics like recipes, cases, and demonstrations.

References

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2. Crowley, J., Ball, L., & Hiddink, G. J. (2019). Nutrition in medical education: A systematic review. *The Lancet Planetary Health*, 3(9). doi:10.1016/s2542-5196(19)30171-8