

CRR Research Project Presentation
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CHONY Chefs: Using Culinary Medicine to Empower Residents as Dietary and Healthy Lifestyle Providers

Introduction:

Obesity is widely recognized as an epidemic in this country. Although recent studies have suggested that obesity rates in childhood have stagnated and may even be decreasing in certain age sub-groups and subsets of the population, the newest data suggests that rates may again be on the rise (Skinner et al, 2018). This especially pertains to minority children belonging to families of low SES (Baidal et al, 2017). Given that Washington Heights is comprised largely of non-white Hispanics and African Americans, mostly of a low SES, the patients that we, as residents, see in our continuity clinics are at high risk for childhood obesity and its many future sequelae. Many children are already facing complications of obesity such as Non-Alcoholic Fatty Liver Disease and Type II Diabetes, at such a young age.

Despite this glaring opportunity for us as pediatricians to intervene early, our education in medical school and residency as it pertains to nutrition and dietary/healthy living counseling remains alarmingly non-standardized and inadequate, thus leaving us ill prepared to make an impactful change in our patients' lives. Additionally, despite the presence of many well-regarded national guidelines (ex. AAP's healthy children), studies done right here at Columbia suggest that physicians across all levels (PGY1s-3s and attending physicians), and across multiple subspecialties, are inconsistent in both their knowledge and comfort levels with regards to obesity management, motivational interviewing, and dietary counseling (Vargas-Rodriguez, 2016).

While some might know exactly what to recommend to patients, there is a large opportunity for us to improve how we counsel so as to successfully ensure changes in our patient's lifestyle choices. For example, we all know that kids should be eating more vegetables, but how do we motivate and convince our picky eating patients that vegetables are not only healthy for their growth and development, but that they can actually taste good too. Therein lies the role of culinary medicine. The lecture series will serve to increase the residents' knowledge base, while the teaching kitchen classes will reinforce and augment that knowledge with practical cooking skills, recommendations, and recipes that they can then impart on their patients.

Hypothesis:

We aim to create a culinary medicine curriculum to educate residents about nutritional counseling, obesity prevention and management, and motivational interviewing, with the goal of optimizing and standardizing the anticipatory guidance the residents provide at their continuity clinics. The curriculum will include a series of noon conference lectures and the creation of handouts to be distributed throughout the continuity clinics, with all information being derived from all available guidelines.

We also aim to implement a teaching kitchen staffed by professional chefs and RD's. The short-term goal is to teach the residents how to make quick, cheap and nutritious meals so that they can take this knowledge and provide specific advice/recipes to their patients. Long-term, we aim to recruit patients whom are obese/overweight patients from the continuity clinics (or those identified at high risk for obesity) to similarly participate in teaching kitchen classes, so that they can learn to be self-sufficient in preparing healthy meals.

Lastly, we aim to perform an assessment of the culinary medicine curriculum's effectiveness on increasing the residents' knowledge and comfort levels regarding nutritional counseling, obesity prevention and management, and motivational interviewing by providing and comparing pre and post-intervention surveys. The authors theorize that the lecture series should serve to increase the residents' knowledge, confidence, and competence regarding the above topics.

Methods:

This project involves the creation of a new resident curriculum in order fill a current education gap. This project works to provide residents with the resources they need to standardize nutrition counseling and obesity management in their continuity clinics. It involves both lectures provided at noon conferences during the workday, as well as interactive and educational cooking classes at a teaching kitchen after-hours.

The Institute of Human Nutrition at Columbia is invested in the establishment of this culinary medicine curriculum, and will be a driving force in providing educational resources.

The statistical approach will be a pre-post design. Pre- and Post-intervention surveys will be used to collect data. In this way, the impact of this curriculum will be able to be assessed. The surveys will evaluate residents' comfort in providing nutritional counseling to different age groups, as well as their general knowledge on obesity management and screening. The surveys will include participant identifying information so that we can directly compare change over time in each participant. This will enable us to perform statistical analysis using a paired t-test to measure whether the curriculum was able to produce statistically significant changes in residents' knowledge bases and comfort in providing nutritional counseling.

An ultimate goal once this curriculum is established is to potentially expand the data collection in order to analyze the impact on our patients' health outcomes (i.e. does our intervention lead to decreased growth velocity/growth percentiles in our patients identified as being overweight or obese?).

Miscellaneous:

Confidentiality:

As mentioned above, the surveys will include participant identifiers so that we can compare individual change over time. The names of the specific participants will not be released, nor will any individuals be named in any publications that result from this study.

Location of study:

The lecture series will be provided during noon conference in the McIntosh conference room in CHONY. We are still in the process of determining the location of the teaching kitchen, however the current frontrunner is the Faculty Club.

Risks and Benefits:

Risks: There are no risks associated with the lecture series. There are physical risks associated with participating in the teaching kitchen, however every precaution will be taken to prevent physical harm, and all cooking will be done under the supervision of trained professionals.

Benefits: The lecture series should serve to increase the knowledge and confidence levels of the residents, while the teaching kitchen will teach residents valuable cooking skills.