

Study Purpose and Rationale

Obesity is widely recognized as an epidemic in this country. The newest data suggests that obesity rates are currently on the rise, specifically in children ages 2-5 years (AC Skinner 2018). This especially pertains to minority children belonging to families of low SES (J 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 a very 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 non-standardized and inadequate, leaving us unprepared 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 right here at Columbia suggest that physicians across all levels (residents 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 (JC Rausch et al 2011). There is a large opportunity for us to improve how we counsel so as to successfully ensure changes in our patients' lifestyle choices and health outcomes.

Study Design

1) Create a nutrition curriculum to educate residents about nutritional counseling, obesity prevention and management, and motivational interviewing, such that the anticipatory guidance we provide at our continuity clinics is standardized, in accordance with the most recent guidelines

-Using guidelines from:

- The AAP (Dietary Recommendations for Children & Adolescents, Bright Futures, Pediatric Nutrition textbook)
- The U.S. Departments of Agriculture and Health and Human Services (Dietary Guidelines for Americans)

- The Institute of Human Nutrition at Columbia is invested in the establishment of this culinary medicine curriculum, and will help provide educational resources.

6 course lecture series during Spring- Summer of 2019

1. Nutrition guidelines for Newborn to Toddler
2. Nutrition guidelines for School Age- Adolescent (+ sleep, exercise, other aspects of healthy living)
3. Long term health complications of obesity, including panel of specialists (i.e. Cardiology, Endocrinology, Liver), + education on screening and referral
4. Motivational Interviewing (guest speaker)
5. Current obesity research (guest speaker Dr. Woo-Baidal)

6. Food Insecurity and how to have an affordable healthy diet i.e SNAP (guest speaker Dr. Christina Hernandez)

2) Implement a teaching kitchen with the goal of teaching residents how to make quick, cheap and nutritious meals so that they can provide specific advice/recipes to their patients
- long-term goal of recruiting high-risk patients from the continuity clinics to participate in teaching kitchen classes for community members
- Bionutrition Program Manager, Heather Seid, offered to help with the teaching kitchen component

3) Assess the effectiveness of the culinary medicine curriculum on residents' knowledge and comfort levels regarding nutritional counseling, obesity prevention and management, and motivational interviewing.
- Pre- and Post-intervention surveys will be used to collect data to assess the impact of this curriculum. A link to survey will be sent to all residents several weeks before the first lecture. 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.

Statistical Procedures

-Longitudinal study with pre- and post- intervention data
-Survey will use Likert Scale for assessment and scoring
-Paired T-test to assess pre-and post survey data of each subject (each subject will have an anonymous identifier)
- can compare results of individual questions, and also total survey scores
-Will also assess overall trend of all resident data over time

Study Procedures

Gathering of survey data and analysis. No other procedure will be performed.

Study Drugs or Devices

Not applicable

Study Instruments/Questionnaires

Pre- and Post- Intervention Survey

Examples of survey questions:
(answer choices 1 – 5)

How would you rate your knowledge of the medical conditions related to overweight and obesity in children aged 2-18 years? (1= no knowledge, 5= comprehensive knowledge)

How comfortable would you say you feel counseling patients and families about prevention of overweight and obesity in their children? (1= not comfortable, 5= extremely)

How comfortable would you say you feel counseling patients and families about treatment of overweight and obesity in their children? (1= not comfortable, 5= extremely)

How effective overall would you say is the counseling you provide about obesity prevention and treatment? (1= not at all effective, 5= extremely)

How often do you incorporate nutrition counseling into your well child visits? (1= never, 5= every time)

How often do you give specific food or cooking advice to patients and their families? (1= never, 5= every time)

In well care visits, how often do you ask about : (1=never, 5=every time)

-Fruit/vegetable consumption

-Juice/soda consumption

-Type of milk

-Age-appropriate serving sizes

-Meal and snacking patterns

-Frequency of eating fast food

-Readiness to change eating habits

Recruitment of Subjects

-Subjects: Pediatric Residents (PGY1-3)

-Residents will be recruited by sending out a link to take the survey, and will be informed about the lectures and encouraged to attend

Informed Consent

- Consent will be obtained with the pre-intervention survey that is emailed out to the residents

Confidentiality

-Subjects will choose an identifier that has no revealing information, survey information will not be able to be matched to known individuals

Potential Risks

No risks identified

Potential Benefits

Improved nutrition knowledge for the residents, leading to better counseling and guidance for patients which can ultimately lead to improved health outcomes

Alternatives

Not applicable

Research at External Sites

Not applicable

References

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