P101 Qualities, Activities and Modes of Operation of Well-Integrated New York City School Gardens

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Objective: New York City School Gardens are highly varied in their characteristics, activities, and how they operate within a school. This study aimed to describe the qualities of well-integrated school gardens. That is, those who have a physically maintained garden that students visit regularly and has become a sustained part of the school culture.

Design, Setting and Participants: School gardeners from 21 schools in New York City participated in a survey, observation(s), a semi-structured interview, and a concept mapping exercise during the 2013-2014 school year. Photographs were taken of gardens and additional documents were collected for analysis (when available).

Outcome Measures and Analysis: Descriptive statistics were used to analyze the survey and qualitative techniques, including pattern matching, explanation building, and cross-case synthesis were used to analyze the qualitative data. Finally, multidimensional scaling and hierarchical cluster analysis was used to assess and synthesize data collected from the concept mapping exercises.

Results: A rich description, supplemented with images, of each school gardening program was constructed that describe each school's unique coupling of School Garden Integration Framework (SGIF) components to meet their special needs and sustain the garden (e.g. a school with a greenhouse-enclosed rooftop hydrofarm classroom operationalized the SGIF very differently than a school with outdoor raised beds). Taken together these data illustrate the variation in how the SGIF can be used to overcome barriers and effectively integrate a school garden.

Conclusions and Implications: Lessons learned from each school may be helpful for other urban school gardeners and can be used to develop guiding principles and policies for schools with similar gardening needs or requirements.

Funding: None.

P102 Student Perspectives on Nutrition and Health at a Military College

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Objective: The goal of this study was to determine nutritional and health perceptions of students at a military college. The information will be used to develop a larger scale nutritional study aimed at promoting better eating habits in college students.

Design, Setting and Participants: A total of 426 cadets participated in either a web-based or Scantron survey. Information was gathered about demographics, fruit and

vegetable consumption, incentives for healthier eating, and attitudes toward nutritional genomics and epigenetics.

Outcome Measures and Analysis: Survey results were assessed using Principal Components Analysis, followed by univariate tests to examine whether attitudes and eating habits varied with demographics or education.

Results: Most cadets (96%) reported exercising >1 hour/day and a majority (62%) had a normal BMI (18.5-24.9). Most (95%) had taken a health course previously and rated their nutritional knowledge as average, above average, or excellent (95%). But nutrition education or knowledge did not appear to influence fruit or vegetable consumption or attitudes towards nutrition and disease. Cadets reported more interest in changing eating habits for the sake of improving athletic performance (63%), rather than to avoid disease (8%).

Conclusions and Implications: Results suggest that, in this population of college students, education alone may not change nutritional habits. Efforts to develop better eating habits should consider motives of the students.

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P103 Food Addiction Among College Students in an Introductory Nutrition Course

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Objective: College students are vulnerable to weight management problems. This study's objective was to characterize addiction to high-fat, high-sugar foods among students in an introductory nutrition course.

Design, Setting and Participants: Using a cross-sectional design, 199 students aged 19.4 ± 2.7 years were recruited from their class early in the fall 2014 semester. Students were predominantly female (74.4%), Caucasian (81.9%), and underclassmen (22.6% freshmen, 45.2% sophomores). The survey included the Yale Food Addiction Scale and demographics. It was introduced in class and self-administered electronically.

Outcome Measures and Analysis: Responses were categorized into symptom groups resembling the criteria for substance dependence outlined in the Diagnostic and Statistical Manual of Mental Disorders. Clinical impairment reflected food behavior that "causes significant distress" and "problems in my ability to function effectively." Food addiction diagnosis required at least three (of seven) symptoms plus clinical significance. Students also identified individual problem foods. Results were characterized with descriptive statistics.

Results: Students exhibited 2.1 ± 1.6 (mean $\pm$ SD) food addiction symptoms: loss of control (22.6% of respondents), unsuccessful quitting (92.5%), time spent to obtain/use/recover (15.6%), giving up other activities (21.6%), continued despite problems (24.6%), tolerance

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of increased amounts with reduced effects (21.6%), and withdrawal (12.6%). Eight percent met criteria for both clinical impairment and diagnosis of food addiction. Students identified 3.8 ± 2.5 problem foods, most commonly: ice cream (34.7% of respondents), chocolate (34.7%), cookies (33.7%), chips (28.6%) and pizza (28.6%).

Conclusions and Implications: Screening for food addiction offers the potential for early risk identification, education, and treatment. Future studies should evaluate the effects of nutrition education on addictive food behaviors in college students.

Funding: None.

P104 Bigger Homes & Recipes: How Recipe Calories Have Increased Over the Years

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Objective: How has the caloric content of classic recipes changed over time? The present research addresses this potential change.

Design, Setting and Participants: A content analysis of common recipes in *Better Homes & Gardens*, the bestselling book in its genre, was compared from its first edition in 1930 to its most recent edition in 2010. Recipes were categorized into appetizers, side dishes, entrées, and desserts and analyzed for significant changes in total calories, number of servings, and calories per serving.

Outcome Measures and Analysis: The data from this study was analyzed using multivariate ANOVA tests.

Results: From its first edition to its most recent edition, the total calories in appetizer recipes significantly increased by 51.18% ($p < .05$) and entrée recipes significantly increased in total calories by 32.96% ($p < .05$).

Conclusions and Implications: As these increases have gone unnoticed for scratch cooks and their families, cookbook users should be wary of these drastic changes and the amount consumed to counteract ever increasing weight gain.

Funding: Cornell University Food and Brand Lab.

P105 Older Adults' Cooking Practices: Using Card Sorts to Study Frequency of Use of Food Preparation Methods and Kitchen Equipment

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Objective: The objective of this project was to examine routine food preparation practices of older adults by assessing their use of food preparation methods and kitchen equipment.

Design, Setting and Participants: Seventeen adults ages 60 and older who prepared three or more meals per week at home were recruited in two New York State rural counties. Participants used two printed card decks with

38 food preparation method cards and 40 kitchen equipment item cards to do three different closed card sorts: food preparation method frequency; kitchen equipment use frequency; and essential versus non-essential equipment.

Outcome Measures and Analysis: Descriptive statistics were calculated.

Results: Of the 38 preparation methods, the mean number reported used often was 16.5 ± 5.0 , used occasionally was 9.2 ± 2.7 , and used rarely/never was 11.5 ± 4.3 . Methods most frequently reported as being used often included mixing or stirring, chopping or slicing, rinsing, and stir-frying. The mean number of the 40 equipment items sorted as used often was 26.9 ± 6.3 , used occasionally was 6.5 ± 4.6 , and used rarely/never was 6.5 ± 4.1 . A total of 76% of participants reported using the top 20 equipment items often. Rarely or never used items included wok, food processor, and garlic press. The mean number of equipment items identified as essential was 21.5 ± 9.3 (range: 6-38).

Conclusions and Implications: Older adults who prepare meals at home use a range of food preparation methods and kitchen equipment often. Nutrition educators can benefit from considering use of equipment and food preparation methods to help identify gaps in human or material capital that limit adoption of recommended cooking practices, like using a meat thermometer.

Funding: Cornell University.

P106 College Students' Perceptions of Canned Foods

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Objective: To determine college students' perceptions and use of canned foods, as many consumers have misperceptions about canned foods.

Design, Setting and Participants: We conducted an online (Qualtrics) cross-sectional survey of students ($n=585$) currently enrolled in our introductory nutrition course, using a validated survey based on Social Cognitive Theory constructs.

Outcome Measures and Analysis: Descriptive statistics and independent t-tests were used to describe students' intake of selected canned food items in the last 7 days and the impact of intake on students' perceptions of canned foods. To account for multiple comparisons bias, $P < 0.001$ was considered statistically significant.

Results: The percentages of students who consumed canned vegetables, fruits, legumes, and meat at least 1-2 times in the last 7 days were 51.5%, 34.5%, 58.1%, and 37.4%, respectively. Students who ate canned vegetables, fruit or meat (vs. those who did not) had more favorable opinions about the convenience of the canned (vs. fresh) product ($P < 0.001$). Similarly, canned food consumers reported higher likeability of canned foods ($P < 0.001$). Additional positive and negative perceptions of canned foods were identified.

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