Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Adding Walnuts to The Regular Diet Improved the Diet Quality Among U.S. Adults: Results of An NHANES Modeling Study

Author(s): L. Spence, B. Henschel, R. Li, C. Tekwe, K. Thiagarajah; Indiana University

Learning Outcome: Upon completion, participant will be able to learn the impact of adding walnuts to the usual diet.

Background: A poor unbalanced diet is a risk factor for many chronic conditions.

Objective: To assess the impact of adding one ounce of walnuts on nutrients of public health concern and diet quality.

Methods: Food modeling was implemented in the 2015−2018 National Health and Examination Survey (NHANES) in a population of 9,145 adults, aged ≥19 years of no-nut consumers. One ounce of walnuts was added to the usual dietary intake in this modeling study. The diet quality was measured using Healthy Eating Index (HEI). The nutrient intake was assessed using the National Cancer Institute method (NCI) and the HEI-2015 score was estimated using the population ratio method. Significant differences were determined using non-overlapping 95% CIs.

Results: Modeled diet (59.2±0.7) had significantly higher HEI-2015 scores than usual diets (52.4±0.7) out of 100 total points. Compared to usual diet, modeled diet significantly improved the prevalence of inadequacy for magnesium (69.6% to 52.0%), folate (49.2% to 40.6%), Copper (19%to 0.1%), and Zn (34.2% to 24.4%). The mean potassium intake significantly improved from 2443±27 to 2567±27 mg. Further, mean fiber intake increased significantly from 14.6±0.2 to 16.5±0.2 grams. For omega-3 fatty acids, the prevalence of adequate intakes ranged from 51.9% to 68.6%. However, adding one ounce of walnuts completely resolved the inadequacy of omega-3 fatty acid intake.

Conclusion: Public health messages targeted at no-nut consumers should emphasize the benefits of nut consumption, specifically walnuts to improve diet quality. Further, adding walnuts to the diet improved the intake of folate, magnesium, and trace minerals.

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Costs and Barriers Associated with the Recruitment of Children for a Dietary Supplement Intervention during Covid-19

Author(s): J. Leone, P. Clayton, A. Macchi, R. Galvan, D. Ramirez, J. Romero, V. Dinou, M. Trak-Fellermeier, C. Palacios; Florida International University

Learning Outcome: to understand the cost effectiveness of various community-based and online recruitment methods for children and their families into a dietary supplement intervention and the barriers to participation during Covid-19.

Recruitment of children for dietary supplement interventions is challenging, especially during a pandemic. This analysis aimed to (1) evaluate the cost and effectiveness of recruitment strategies; (2) evaluate the reasons for exclusion; and (3) evaluate the barriers of participation in the MetA-Bone Trial. The MetA-Bone Trial currently examines the effect of soluble corn fiber supplementation on bone in children 10-13 years old for 12 months. Recruitment methods were categorized as (1) community-based (CB): healthcare providers, schools, companies/organizations, university, mailings, and word of mouth; (2) Online: email campaigns, social media; and (3) not specified. Totals of the cost and effectiveness of each recruitment method, participants' reasons for exclusions, and barriers to participation were calculated. Preliminary results examine efforts for 238 participants from February 2020-2022. Email campaigns rendered the greatest number of pre-screened participants (n=145). The total cost of recruitment was $92,433 (CB=$74,170 and online=$18,264) with the highest cost being healthcare providers ($40,180) and the lowest cost being word of mouth ($80). The most cost-effective recruitment methods were word of mouth ($5 cost per participant) and email campaigns ($85 cost per participant). Participant exclusion was mainly due to incomplete pre-screening forms (n=91) and BMI > 95th percentile (n=24). The greatest barriers of participation for eligible participants were not specified (n=9) or due to time commitment (n=4). Online and snowball recruitment are most effective based on the number of participants screened and low implementation costs. These findings may be useful to both researchers and dietitians during recruitment of potential participants or clients.

Funding source: The MetA-Bone trial is supported by the National Institutes of Health (Eunice Kennedy Shriver National Institute of Child Health and Human Development, NICHD), grant number 1R01HD098589−01. The funding source had no involvement in the preparation of the article or the study design.

Career Readiness of Recently Credentialed Registered Dietitian Nutritionists

Author(s): M. Therrien[1], M. Perrault[1], J. McNamara[1], K. Yerxa[2]; [1]University of Maine, [2]University of Maine Cooperative Extension

Learning Outcome: Upon completion, participant will be able to describe the perceived career preparedness and gaps in knowledge of recently credentialed Registered Dietitian Nutritionists.

Objective: To assess the career preparedness and perceived gaps in knowledge of recently credentialed Registered Dietitian Nutritionists (RDNs) (≤ 5 years/post credential).

Design/Subjects: This study was a descriptive qualitative/quantitative analysis. A survey, using the core competencies from the Accreditation Council for Education in Nutrition and Dietetics (ACEND®) 2017 Accreditation Standards for Nutrition and Dietetics Internship Programs (DI), was sent electronically to a randomized sample of RDNs from the Commission on Dietetic Registration (N=5,000).

Statistical Analysis: Responses were analyzed overall, as individual competencies, and grouped into six domains of practice, corresponding to the Standards of Professional Performance (SOPP). Descriptive statistics of mean and standard deviation (SD) were used. Lower scores indicated higher perceived career preparedness. A thematic analysis was completed to determine knowledge gaps.

Results: Respondents (n=275) felt prepared overall to practice as an RDN with a mean score of 2.05(SD=0.63) out of 7. For individual competencies, respondents felt least prepared in "analyzing financial and productivity data" M= 3.16(SD=1.66). RDNs felt most prepared to "incorporate critical thinking in overall practice" M=1.48(SD=0.60) and "practice according to the Code of Ethics" M=1.48(SD=0.64). The domain rated strongest was "Competence and Accountability" M=1.72(SD = 0.56), while the weakest was "Utilization and Management of Resources" M=2.93(SD = 1.31). Common knowledge gaps included clinical experiences and business management.

Conclusions: Recently credentialed RDNs feel ready to practice. Management knowledge and skills were identified as needing improvement. These findings serve to inform ACEND® program directors of curricular needs so that RDNs continue to feel prepared for the workforce.

Funding source: None

Dietary Patterns of Adults Who Came for Care to Predoctoral Dental School Clinic

Author(s): K. Wiley[1], R. Zelig[2], H. Samavat[2], R. Touger-Decker[3], S. Singer[4], P. Duda[4], D. Rigassio Radler[2]; [1]Georgia State University, [2]Rutgers University, [3]Rutgers Biomedical and Health Sciences, [4]Rutgers School of Dental Medicine

Learning Outcome: Upon completion, participant will be able to describe the assessment of dietary patterns in a dental clinic and understand the implications for interdisciplinary collaboration for dietary assessment and counseling.

Objective: To explore dietary patterns of adult patients seen in a predoctoral dental school clinic with the Rapid Eating and Activity Assessment for Patients (REAP) tool. Associations between Body Mass Index (BMI) and intake of sweets and sugar-sweetened beverages (SSBs) were also explored.

Study Design, Setting, Participants: This was a cross-sectional study of data from adult patients (aged 18-89) who were seen for diet evaluation and counseling by student dentists.

Measurable Outcome/Analysis: Demographic information and REAP responses were obtained from electronic health records and reported using frequency distributions; Kruskal-Wallis tests were used to investigate associations between BMI and sweets and SSB.

Results: The study sample (N=220) was 50.0% male (n=110). The median BMI was 28.2 kg/m^2 (IQR=24.5, 33.1 kg/m^2); 71.0% had a BMI reflecting overweight or obese. More than one-third reported *usually/sometimes* eating sweets more than twice per day (n=74, 35.9%) and drinking more than 16 ounces of SSBs (n=74, 34.1%). Most reported *usually/sometimes* eating less than 3 servings of whole grains (n=165, 75.0%), 2-3 servings of fruit (n=155, 71.1%), or 3-4 servings of vegetables (n=121, 70.8%). Seventy-two percent (n=156) indicated they were *willing* to make dietary changes. Associations between BMI and eating sweets (P=0.351) or drinking SSB (P=0.169) were not statistically significant.

Conclusion: This study revealed typical dietary patterns of adult patients who came for care to a dental clinic. Future research in this setting is warranted with a larger sample to further explore dietary patterns and associations between BMI and intake of sweets or SSBs.

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