Development of a Specific Vegetarian Diet Quality of Life Questionnaire for Brazilian Adult Population

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Learning Outcome: Upon completion, participant will be able to access more accurate data related to a vegetarian diet and their possible effects in the individual's quality of life.

Background: The adoption of a vegetarian diet has been associated with positive health outcomes. However, few studies evaluate the effect of this eating pattern on quality of life, which can be significantly affected by the adoption of a more restrictive diet. Moreover, no specific instrument for the vegetarian population to measure the quality of life is available. Therefore, this study aimed to elaborate and validate a specific questionnaire to measure the quality of life in vegetarians.

Methods: The Specific Vegetarian Quality of Life Questionnaire (VEGQOL) was constructed based on other instruments and studies related to vegetarianism. We performed the content and semantic validation, followed by a pilot study to evaluate the acceptability and reproducibility of the questionnaire. Afterward, a nationwide survey was conducted using an instrument composed by the VEGQOL, a questionnaire to collect sociodemographic data and a general quality of life questionnaire.

Results: The elaboration and validation steps resulted in an instrument with excellent reproducibility and internal consistency, considered adequate to evaluate quality of life in vegetarians; the sample size and distribution was representative of the Brazilian vegetarian population, making it possible for us to elaborate a VEGQOL score with cut-off points to properly evaluate vegetarian's quality of life.

Conclusions: The questionnaire produced in this study is a useful tool for future research in this area, in order to provide more accurate data related to a vegetarian diet and their possible effects in the individual's quality of life.

Funding Source: None

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Diet Quality, Body Composition, and Carotenoid Status in NCAA Division 1 Athletes

Author(s): E. Hill, N. Jontony, C. Taylor, L. Boucher, V. O'Brien, C. Spees; The Ohio State University

Learning Outcome: Upon completion, participant will be able to describe diet quality of NCAA D1 athletes and explain the relationship between body composition and skin carotenoid measures in this population.

Aligning dietary patterns with evidence-based recommendations is vital for elite athletic performance. However, Division 1 (D1) athletes often utilize adverse dietary practices due to training and body composition. Dietary patterns, body composition, and skin carotenoids were analyzed to determine diet quality and associations between body fat percentage and skin carotenoids. D1 athletes (n=143) were interviewed from women's rowing (Wrow, n=63), women's gymnastics (Wgym, n=9), women's swimming (Wswwim, n=22), men's swimming (Mswwim, n=24), and men's wrestling (Mwr, n=25). Dietary patterns were assessed via food frequency questionnaires and Healthy Eating Index (HEI) 2015 scores. Body fat percentage and skin carotenoids were measured in-season and out-of-season via dual-energy x-ray absorptiometry and resonance Raman spectroscopy, respectively. Pearson correlations were used to analyze variables of interest, and ANOVA was utilized to test differences between teams. Mean HEI score for all athletes was 71.0 (SD=-11.2). Men had lower HEI scores (Mswim=-68.2, Mwr=56.5) compared to women (Wrow=73.5, Wgym=-68.9, Wswwim=72.8). Body fat percentage increased for women and decreased for men from in-season to out-of-season. Skin carotenoids decreased for all teams except Mwr over this period. There was a negative association between changes in body fat percentage and skin carotenoids for the entire cohort (p=-0.001, r=-0.33); however, no significant associations were observed among teams. Athletes reported suboptimal diet quality, and lower skin carotenoid status was observed out-of-season compared to in-season. To address these issues, sports dietitian-delivered dietary interventions may be warranted year-round for D1 athletes to improve dietary patterns to promote optimal nutritional status and performance.

Funding Source: None

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Dietary and Lifestyle Behavior Changes from Voluntary Worksite Wellness Programs: A Secondary Data Analysis

Author: K. Hicks-Roof; University of North Florida

Learning Outcome: Upon completion, participants will be able to evaluate the value of including a dietitian as part of a worksite wellness program.

Outcome: The purpose of this secondary data analysis is to determine the changes in dietary and lifestyle behaviors from employees who voluntarily participated in a worksite wellness program.

Methods: Individualized data was collected by Registered Dietitian Nutritionists (RDNs) from employees who participated in a worksite wellness program. This de-identified data was collected from January to December 2018 within 65 different companies, small and large, across the United States. RDNs delivered one-on-one nutrition counseling. A total of 2,710 employees accounting for 6,149 unique visits were used in the analyses.

Analysis: Paired t-tests, one-way ANOVA and descriptive statistics.

Results: Most employees were either considered to be overweight (BMI=25-29.9, 29%) or obese (BMI=30+, 45%) at baseline. Each employee volunteered to meet with the RDN between one and ten visits, of which only 53% had more than one visit. For those who completed a follow-up visit, there was a slight significant increase in the consumption of portions of whole grains (+0.83), fruit (+0.84) and vegetables (+0.63). Simultaneously, there was also an increase in self-reported time per day of exercise (+7.2 min). These dietary and lifestyle behaviors changes correspond to the decline in weight (-0.82 lbs).

Conclusions: A worksite wellness program that includes RDN delivered nutrition counseling can have significant impacts on dietary and lifestyle behaviors. These data highlight the positive impacts from worksite wellness programs at workplaces across the U.S. RDNs, the nutrition experts, should be included in worksite wellness programs to help employees reach small, yet attainable changes in diet and lifestyle habits.

Funding source: Private: Family Food LLC

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Dietary Fiber Intake and Its Association with Body Mass Index and Waist Circumference among Children and Adults: NHANES 2015-2016

Author(s): K. Shankaranarayanan, D. Miketinas; Texas Woman's University

Learning Outcome: Upon completion, participants will be able to identify the percentage of children and adults who meet the fiber AI and describe the relationship between fiber and surrogate measures of adiposity.

The obesity epidemic in the United States affects 18.5% of children/adolescents and 39.8% of adults. A high-fiber diet promotes satiety and can aid in weight management. This analysis estimated usual intake of dietary fiber from the 2015-2016 National Health And Nutritional Examination Survey and explored associations between dietary fiber intake and surrogate measures of adiposity. The estimations were performed using the NCI method based on 2 non-consecutive 24-h dietary recalls. Day-1 recalls were used to explore the relationship between Body Mass Index (BMI) and Waist Circumference (WC) with dietary fiber intake. Associations were explored using linear regression and the model parameters included fiber intake, energy intake, age, race, ethnicity, and whether or not respondents were following a weight-loss diet. All analyses were performed using SAS version 9.4. A total sample of 7823 subjects (65% adults, 35% children) were included for the study. Usual intake of fiber for children and adults was 11.9 ± 3.6 g/day and 16.2 ± 4.2 g/day. The percent of children and adults who met the AI for fiber were 2.1% and 6.5%, respectively. Dietary fiber was inversely associated with BMI for girls (-0.055 + 0.02; p = 0.008) and adults (β=-0.038 + 0.01; p = 0.0003). Dietary fiber was also inversely associated with WC for girls (β=-0.097 + 0.04; p = 0.022) and adults (β=-0.128 + 0.02; p < 0.0001). Consumption of fiber be beneficial in weight management and should be considered in dietary interventions to treat or prevent obesity.

Funding Source: None

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Funding Source: None

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Poster Session: Wellness and Public Health