ABSTRACTS

BEHAVIORAL HEALTH

Evaluation of Medicare's intensive behavioral therapy for obesity: The BieneStar Experience.

Researchers evaluate an intensive behavioral therapy program for obesity (IBT-O) based on Medicare reimbursement policy. A retrospective cohort study was designed to address this. A sample of 641 participants was assembled for the study. The sample was 71.1% female, with a median age of 54 years. The sample was 70% Hispanic, 8.1% non-Hispanic white, and 3.7% African-American. Median body mass index (BMI) was 38.1. Participants were recruited from the South Alamo Medical Group in Texas, which had been implementing the BieneStar Healthy Lifestyle Advocacy program as outlined by the Centers for Medicare and Medicaid Services. Primary outcomes were BMI and weight. Inclusion criteria were a minimum BMI of 30, cleared by their physician to participate in moderate exercise, and having at least one IBT-O session. There were no exclusion criteria. The BieneStar Healthy Lifestyle Advocacy program uses Centers for Medicare & Medicaid Services (CMS) guidelines and the U.S. Preventative Services Task Force's 5-A framework (Assess, Advise, Agree, Assist, and Arrange). The recommended schedule was: One session every week during the first month, two sessions per month for months 2 to 6, and one session per month for the next 6 months. All sessions were performed individually at the clinics. Height and weight were measured at each visit, with covariates extracted from records: birthdate, race/ethnicity, diagnosis of hypertension and diabetes, and type of health insurance. Statistical analysis was performed in 2017 and was designed to assess the BieneStar IBT-O program's effect on change in BMI and weight by comparing first and last sessions as well as longitudinal comparison. Analyses were performed using R version 3.4.1 (R Foundation, 2017). The median reduction of weight was 0 kg in those with fewer than four sessions; 1.1 kg for those with four to eight sessions; 3.7 kg for those with more than eight sessions. Participants reportedly lost an average of 0.102 kilograms per session attended.

CULINARY

Intake of caffeine from all sources and reasons for use by college students.

Researchers assessed caffeine intake from a wide variety of caffeinated products among US college students. A cross-sectional survey study was employed to study this. A sample of 1,248 college students was obtained. The sample was derived from five US universities during the 2009-2010 academic year, with 301 from Louisiana State University; 286 from Kent State University; 238 from University of Massachusetts Amherst; 212 from California State University-Fullerton; and 211 from Tufts University. The population was 64.2% female, with 32.1% aged 16 to 19 years; 52.2%, 20 to 22 years; and 15.7%, 23 years and older. The sample was 69.4% non-Hispanic white, 7.1% non-Hispanic black, 9.9% Hispanic/Latino, and 9% Asian. Participants were recruited at campus information booths. The self-report survey instrument contained detailed questions on 31 specific caffeine-containing products as well as opportunities to write in products not listed, to include beverages, foods, gums, and medications. Participants were also asked to indicate serving size and frequency of use. For data analysis, individual beverage types were grouped as coffee, tea, sodas, energy drinks, and other. The survey also included self-reported height and body weight so BMI could be established, as well as other sociodemographic questions. The survey was administered on site by project staff and computed using Scan-Tools Plus with ScanFlex version 6.301 (Scranton Corporation, 2006). Statistical analysis was performed using SAS version 9.2 (SAS Institute, 2008). The researchers reported caffeine intake by 92% of the sample that year, with mean daily consumption being 159 mg/day, with a mean intake of 173 mg/day among identified caffeine users as opposed to non-users. Coffee was identified as the primary source of caffeine by the sample.

DIABETES CARE

Effects of nutrition therapy on HbA1c and cardiovascular disease risk factor in overweight and obese patients with type 2 diabetes.

The authors examined nutrition therapy by evaluating three different methods of hemoglobin A1c (HbA1c) and other cardiovascular disease risk factors in overweight patients with type 2 diabetes. A prospective, randomized, three-arm trial was designed to address this. A sample of 108 individuals was studied. Inclusionary criteria were: between 18 and 80 years of age, diagnosed with type 2 diabetes, not treated with insulin but managed by stable doses of other medications at least 3 months before enrollment; HbA1c at least 7% and BMI at least 25. The sample was 57% female, with a mean age of 60 years and a mean HbA1c of 8.07% and mean diabetes duration of 11 years with a mean BMI of 35.2. The primary outcome was the effect of nutrition therapy on HbA1c after 16 weeks. Participants were randomized into three arms of 36 participants. Group A served as control and for 16 weeks received the standard care recommendations, meeting with a study Registered Dietitian Nutritionist to develop an individualized eating plan with objectives of lowering HbA1c and reducing body weight. Groups B and C followed a structured dietary plan modeled on the Joslin Nutrition Guidelines for overweight and obese patients with type 2 diabetes, using a hypocaloric diet, which included a commercially available diabetes-specific nutrition formula. Groups B and C received a dinner menu book containing 17 different recipes and snack lists to accompany the plan. Group C received weekly phone coaching and support provided by a registered dietitian nutritionist (RDN). Participants recorded activity level via an exercise log and diet via food diaries, and they attended three study visits throughout the trial for interviews and measurements. Statistical analyses were conducted using SAS version 9.4

(SAS Institute, 2012). Authors report that HbA1c did not change from baseline in group A, but it decreased significantly in groups B and C, which also had reductions in body weight and waist circumference.

EDUCATION

Worldwide use of the first set of physical activity Country Cards: The Global Observatory for Physical Activity—GoPA!

Varela A, Salvo D, Pratt M, et al. *Int J Behav Nutr Phys Act*. 2018; doi: https://doi.org/10.1186/s12966-018-0663-7.

Investigators assessed the use of the Global Observatory for Physical Activity—GoPA! Cards, to identify the factors associated with their use, and develop recommendations for supporting country-level physical activity promotion. A cross-sectional study was designed to address this. A sample of 143 participants was recruited. The sample was international, with participants representing 68 nations. Of the sample, 81.8% were employed in academia and 9.1% in government services; 8.4% were from World Health Organization region Africa, 3.5% were eastern Mediterranean, 36.4% from Europe, 30.1% pan-American, 3.5% southeast Asia, and 18.2% from western Pacific. The sample was 67.8% from high-income countries, 21% from upper middle income, 7% lower middle income, and 4.2% low income. The researchers recruited participants from the International Society for Physical Activity and Health and used a questionnaire via Survey Monkey between August and October 2016. The Global Observatory for Physical Activity—GoPA! was established in 2012 as an international response to the global pandemic of physical inactivity. The program developed standardized country-specific physical activity profiles (ie, Country Cards) to summarize country-level data up to 2013 and provide comparable indicators for demographics, physical activity prevalence, existence of physical activity surveillance systems, and policy and research indicators. The survey established a Country Card composite use score and questions related to use, including what types of audiences were involved and how the information was dispersed to various audiences. Perceived barriers were tabulated and assessed. Statistical analyses were performed using STATA version 12.0 (STATA Corp., 2011). The researchers report their assessment that for Country Cards to have a broader impact, the program must reach beyond the academic sector.

PEDIATRIC

Character apps for children's snacks: Effects of character awareness on snack selection and consumption patterns.

Putnam M, Cotto C, Calvert S. *Games Health J*. 2018; doi: https://doi.org/10.1089/g4h.2017.0097.

Researchers examined whether children's snack choices and consumption patterns could be influenced by cartoon exposure. A randomized controlled trial was designed to address this. A sample of 132 children was recruited. The sample was 55% male aged 4 to 5 years; 35% white; 29.5% Hispanic; 15% African-American; and 4.5% Asian-American. The sample was recruited from 14 childcare facilities in a large metropolitan area. The intervention used was a bowling app-style video game, Action Bowl, adapted for the study. Participants could position the bowling ball using their fingers on a screen. The app was adapted using an image of "Dora the Explorer" characters from the children's cartoon series about a young girl of the same name. The children's familiarity with the character and the cartoon was surveyed individually by the researchers to determine whether they knew her and to what extent. In the game, the image was alternated between a character holding a banana, orange juice, potato chips, or soda. The children were randomized into three groups: Healthy image, unhealthy image, and the control. The children in both interventions observed the character with a food a maximum of 42 times. Children in the control group saw no images or foods. After app-play, each child was offered a food (either banana or potato chips) and drink (either orange juice or soda). The coding was as follows: 0 (chips and soda); 1 (chips and orange juice or banana and soda); 2 (banana and orange juice). Researchers asked each child why they selected what they did. The researchers used ordered logistic regression in the statistical analyses. The researchers report that within the two intervention groups, prior awareness of the character and cartoon led to greater influence over the children's dietary decisions.

PUBLIC HEALTH

Annual total binge drinks consumed by U.S. adults, 2015.

Kanny D, Naimi T, Liu Y, et al. *Am J Prev Med*. 2018;54(4):486-496.

Authors used a new measure of binge drinking among US adults to assess disparities and the public health impact at state and national levels. A cross-sectional study was designed to address this. A sample of 408,000 respondents was assembled. Data from the Behavioral Risk Factor Surveillance System were used, with a random-digit-dial landline and cellular phone survey system covering the US states and territories. The sample was 57.7% female; 78% white; 7.6% black; and 6.8% Hispanic. The survey contained four questions assessing alcohol consumption during the past 30 days: 1) number of drinking days; 2) average number of drinks consumed during days with drinking; 3) number of binge-drinking episodes; 4) largest number of drinks ever consumed at one sitting. Binge drinking was defined as four or more for women and five or more for men on any one occasion. Heavy drinking was defined as eight or more drinks per week for women and 15 for men. Total annual binge drinks was calculated by multiplying the total annual binge-drinking episodes by binge-drinking intensity of each binge drinker. Total binge drinks consumed per adult was calculated by dividing total annual binge drinks by the weighted population estimate of US adults. Total binge drinks consumed per binge drinker was calculated by dividing total annual binge drinks by the weighted population of estimated US binge drinkers. Statistical analysis was performed using SAS version 9.3 (SAS Institute., 2011). Binge-drinking prevalence, frequency, intensity, and total annual binge drinks among US adults and per binge drinker were assessed overall against sociodemographic characteristics for the United States and by state: age; race/ethnicity; education level; household income; and overall drinking patterns. The authors report that approximately 17.1% of US adults had an average of 53.1 binge-drinking episodes per binge drinker, at an average intensity of seven drinks per binge.

RESEARCH

Marine omega-3, vitamin D levels, disease outcome and periodontal status in rheumatoid arthritis outpatients.

Beyer K, Lie S, Kjellevold M, et al. *Nutr J*. 2018; doi: https://doi.org/10.1016/j.nut.2018.03.054.

The researchers examined the association between rheumatoid arthritis (RA) status and periodontal conditions in relation to intake of marine omega-3 fatty acids and vitamin D. A cross-sectional study was designed to address this issue. A sample of 78 participants was assembled for the study. Inclusion criteria were: chronic established RA, caucasian ethnicity, and over 35 years of age. Exclusionary criteria were diabetes, malignancy, pregnancy, breastfeeding, and antibiotic usage. The sample was 100% white, with a median age of 57.1 years, body mass index of 26.1, and median number of teeth was 25. Recorded data extracted for the