March 2018

We are excited with the number of poster session presenters this year.

Session abstracts were peer-reviewed by members of the Idaho Academy of Nutrition and Dietetics.

You can earn 1 CPE for visiting the Poster Sessions at our Annual Meeting in Sun Valley on April 19th.

#1 Eat, Smart, Plan, Shop, Save, and Live; All the Best Words are Already Taken: Creating an Online Nutrition Education Curriculum for Idaho

Jessica Bricky¹, BS, Elizabeth Comer², BS, Kristin Hansen³, MS, Annie J. Roe⁴, PhD, RDN, Eat Smart Idaho, University of Idaho Extension

¹Online Curriculum Development Specialist, ²Media Specialist, ³Program Manager, ⁴Director

Objective: To overcome barriers to in-person class attendance through creation of an online adult nutrition education curriculum and expand the reach of Idaho’s Supplemental Nutrition Assistance Program Education (SNAP-Ed), Eat Smart Idaho.

Theory: Recommended practices from evidence-based studies and similar online curricula and websites serving SNAP eligible audiences guided the project. Design was based on several adult learning theories including the concept of andragogy and adults as self-directed learners; the need to be motivated internally. Participants provide their own explanation of why they need to learn this material at the beginning of each lesson. Actual graduates from the in-person course explain how the content has helped them.

Audience: Idaho’s adult SNAP eligible population

Program: Plan, Shop, and Go- Eat Smart Idaho is more than a slide show. It includes Idaho-specific content, audience centered videos, interactive mini games, knowledge quizzes, an achievement system, and social media activities. The audience is encouraged to actively participate by sharing their experiences, motivations, and recipe ideas. Hosted on eXtension Campus, this five-lesson curriculum covers food resource management, healthy eating, physical activity, and food safety.

Evaluation: Knowledge assessment, intent-to-change evaluation, and qualitative feedback on the curriculum content and design are used to determine efficacy and provide direction for continuous improvement.

Conclusions: The online curriculum, Plan, Shop, and Go- Eat Smart Idaho, could help increase the reach of Idaho SNAP-Ed, and provide evidence-based, interactive, and convenient nutrition and physical activity education to limited income Idahoans.

Learning Objective: Participants will identify their personal reasons for taking part in this online course.

Funding Source: Supplemental Nutrition Assistance Program- Ed USDA
#2 Changes in Knowledge of the Female Athlete Triad among Female High School Athletes Following a Brief Nutrition Education Intervention

Rae Krick¹, Katie Brown², PhD, RDN, CSSD, Ann Brown⁴, PhD, CISNN, Helen Brown⁴, MPH, RDN – University of Idaho

¹M.S. Candidate, ²Assistant Professor, ³Assistant Professor, ⁴Assistant Clinical Professor

Abstract: The Female Athlete Triad (Triad) is a disorder comprised of three conditions: low energy availability, menstrual irregularity, and decreased bone mineral density. Triad prevalence is high among high school athletes, though their knowledge of the disorder is low. This study aimed to determine whether viewing a nutrition education video including Registered Dietitians describing Triad etiology, progression, and prevention, as well as testimonies of former college athletes who experienced the Triad would change knowledge of the Triad among female high school athletes. Ninety-three female athletes (15.89 ± 1.2 years) from four Northern Idaho high schools consented to participate. Following randomization to the intervention or control group, all participants completed a pre-survey with ten Triad knowledge questions highlighting Triad risk factors and consequences. Each question was answered using a 5-point scale (“strongly disagree” to “strongly agree”). The intervention group (N = 46) then viewed the nutrition education video, while the control group (N = 44) played a nutrition game in another room. Immediately after, all participants completed a post-survey containing the same ten Triad knowledge questions. Correct responses received one point; each participant received a score out of ten. Results of Mann-Whitney U tests revealed that pre-survey Triad knowledge scores between groups were similar, though post-survey scores were significantly higher among the intervention group as compared to the control (mean rank 64.07 vs. 26.09 respectively; U = 158.00; p < 0.001). The Triad video may be considered for use in high school athletic programs to increase Triad knowledge among female athletes.

Learning Objective: Session participants will be able to name the three components of the Female Athlete Triad.

Funding: This work is supported by Hatch funding IDA01533/1007348 from the USDA National Institute of Food and Agriculture
#3 Updating a Dietetic Practice Act: Thinking Strategically and Working as a Team

Elaine Long, PhD, RDN, LD, Julie Walker, RDN, LD, CDE, Barbara Grant, MS, RDN, LD, CSSO, FAND, Becky Sulik, RDN, LD, CDE, Judith Butkus, RDN, LD Megan Williams, MDA, RDN, LD, CDE, Sue Linja, RDN, LD, RoseAnna Holliday, PhD, MPH, RDN, LD, FAND, Sarah Renaldi, MS, RDN, LD, Samantha Ramsay, PhD, RDN, LD, FAND

Idaho Academy of Nutrition and Dietetics Licensure Workgroup

Abstract: The mission of our affiliate is to “empower the Registered Dietitian Nutritionist.” Our board has worked strategically to position RDNs as the food and nutrition experts. We have increased our visibility by annually presently to the state legislature, exhibiting at pertinent meetings, meeting with third party payers, using social media, involving a broad base of members, and working closely with the Board of Medicine. During our 2017 legislative presentation we asked legislators to support a bill updating the Dietetic Practice Act. Included in this bill are: (1) new or updated definitions that describe the practice of dietetics, including dietitian, evidence-based practice, nutrition care process, and specialty certification; (2) clarification of dietetic practice; (3) specifying requirements for licensure including a provision for licensure by endorsement; and (4) adding grounds for discipline including disciplinary sanctions to align with the state’s Medical Practice Act. A Licensure Workgroup that included members of the Board of Medicine and a cross section of RDNs met over the course of 16 months to craft the bill. The proposed bill was sent to key stakeholders and the Governor. The workgroup received guidance and assistance from the Academy’s Consumer Protection Coordinator, Attorney, Quality Management Committee and Commission on Dietetic Registration. A handout was prepared to accompany the bill and included examples of patients that received nutrition care and counseling in five areas: diet orders, medical nutrition therapy, laboratory tests, pharmacology, and nutrition focused physical exam. Consumer benefits, patient protection, and health care costs are included with each example. Working as a team, we have enhanced the role of RDNs.

Learning Objective: After viewing this poster, participants will be able to (1) describe the updates to the licensure bill, (2) list the steps necessary to build relationships in support of RDNs at the state level, (3) describe one case study from the handout used to support the new section on dietetic practice, and (4) ask questions of presenters that may be used to update or pass licensure in their respective states.

Funding Source: None

Published: J. Acad. of Nutri. Diet., 117.9: A49.
#4 Improving Customer Service and Participation in the National School Lunch Program within the Nampa School District

Danielle Marcolina¹, Jacki Ravio¹, SeAnne Safaii-Waite² – University of Idaho, Coordinated Program in Dietetics

¹ Student, ² Associate Professor

Abstract: The National School Lunch program is one of the most well-known federally funded programs in which schools are reimbursed for meals that meet criteria established by the USDA. Participation in the program varies from school district, state, and grade levels, but customer service continuing education will increase participation at every level. When children are happy with school lunch and the lunchroom experience in general, it is passed on to parents, who in turn feel more confident that the National School Lunch Program is meeting their child’s nutritional needs. This project addresses the need for customer service education by providing an educational in-service with the kitchen supervisors in the Nampa School District. A total of 20 supervisors were given a pre-survey, in-service presentation, post-survey, and goal setting activity were conducted during a supervisors’ meeting and then four weeks later, goals were analyzed for completion and results. Results from staff on customer service goals were mostly positive and documented attempts at improving customer service in the school cafeteria and kitchen. Some of the feedback suggested that there was lack of certain tools needed to work efficiently. A fruit and vegetable poster with pictures was created to help visualize correct portion sizes of items that are on the fruit and vegetable bar daily and increase line efficiency. More research in this area is warranted but this training and feedback has proved beneficial.

Learning Objective: Participants will be able to improve customer service through continued educational training and implement goals in their facilities within a four-week period including customer relations, quality assurance, and marketing and promotion.

Funding Source: None
#5 The Vegan Diet and Glycemic Control in Individuals with Type 2 Diabetes

Rebecca Naldo¹, Erika Bennett¹, Brianna Golden¹, Geena Hernandez¹, Rachel Kmett¹, Andrea Rice¹, Andrea Saavedra¹, Megan Sutton¹, Barbara Gordon², MBA, RDN, LD - Idaho State University Dietetic Internship – Meridian, Idaho

¹Dietetic Intern, ²Clinical Instructor

Abstract: Interest in veganism has grown considerably during the last decade. As more individuals embrace this vegetarian option, a team of eight ISU Meridian dietetic interns investigated whether the therapeutic use of a vegan diet is effective in lowering blood glucose levels among adults with type 2 diabetes mellitus. Completion of this research analysis was done using the Academy of Nutrition and Dietetics Evidence Analysis Library (EAL) systematic review protocol. Three randomized control trials were included in the review, all of which involved the use of a vegan or low-fat vegan diet compared to a control or standard diabetic diet. All three studies provided education for the intervention diet; one study provided education on both the vegan and standard diabetic diet. The inclusion and exclusion criteria were similar for all studies and controlled in some way for participant use of diabetes medications with the understanding that medications could impact results. The studies were conducted in a variety of locations and for different periods of time: one in Washington, DC (74 weeks), one in Korea (12 weeks), and the last in ten cities across the United States (18 weeks). This review found that following a vegan diet appears to lower A1c levels (0.9%, 0.7%, 0.34%) and may thus be effective for improving glycemic control among adults with type 2 diabetes mellitus. Of note, improvements in A1c values, albeit less remarkable (0.3%, 0.1%, 0.14%), were also seen in individuals following the comparison diets.

Learning Objective: Justify the therapeutic use of a vegan diet for glycemic control in populations with Type 2 Diabetes.

Funding Source: None
Abstract:

Background: This project sought to update the Evidence Analysis Library question regarding the effects of supplemental vitamin D and the incidence of fractures for post-menopausal women.

Methods: EBSCOhost, PubMed, and Google Scholar were searched from January 2018 - February 2018. Inclusion criteria included peer reviewed articles in English with a publication date from January 2008 – February 2018, participants were healthy post-menopausal women, a minimum of 20 in each study group, and a dropout rate of less than 20%.

Results: A total of 3 published articles were examined. One study concluded that there was no association between dietary vitamin D intake and the incidence of falls over a one-year period after adjusting for fall-related risk factors. Another study found that there was greater preservation of hip bone mineral density with calcium and vitamin D supplementation relative to placebo across six years of intervention. The third study determined that calcium and vitamin D-3 were not found to have any positive or negative effects on physical function or activity outcomes for the post-menopausal women.

Conclusion: Evidence suggests that post-menopausal women may benefit from vitamin D and calcium supplements to preserve hip bone mineral density if their vitamin D stores are already depleted. Evidence does not suggest that vitamin D supplementation will reduce the incidence of falls or impact physical function or activity outcomes. Further research in this field would be beneficial. Grade: II - Fair

Learning Objective: Participants will be able to describe the role of supplemental vitamin D on fractures in post-menopausal women.

Funding Source: None
#7 How Do Caffeinated Beverages Affect the Need for Other Fluids in Adults?

Miranda Robertson¹, Stephanie Fisher¹, Jennifer Hill¹, Jenifer Massengale¹, Karlie Petti¹, Char Byington², MEd, RDN, LD – Idaho State University Dietetic Internship – Pocatello, Idaho

¹Dietetic Intern, ²Internship Director/Clinical Assistant Professor

Abstract:

**Background:** This project sought to update the Evidence Analysis Library question regarding the effect of caffeinated beverages on fluids in adults from 1986–2006.

**Methods:** EBSCOhost, PubMed, Academic Search Complete, and Agricola were searched from January 2018 - February 2018. Inclusion criteria included peer reviewed articles published from January 2006 – February 2018 in English requiring a minimum of 20 human participants.

**Results:** A total of 5 published articles were examined. One study reports a moderate dose of 5 mg/kg of caffeine ingestion does not affect total body water and fluid distribution. Another study states that regardless of the beverage combination consumed, there are no differences in providing adequate hydration over a 24-h period. The third study suggests that tea and water offer similar hydrating properties at intakes of 4 to 6 servings a day, equating to 168 or 252 mg caffeine. One review article concludes that there is evidence that tea has no diuretic effect unless the caffeine content of tea consumed at one sitting exceeds 300 mg. The last review article summarizes that caffeine supplementation and fluid balance does not alter hydration status during exercise.

**Conclusion:** Evidence suggests caffeine does not affect hydration status in adults. Further research would be beneficial with a larger sample size that includes all areas of population. Grade II.

**Learning Codes:** 2070 (Macronutrients: carbohydrate, fat, protein, fiber, water), 3040 (Food consumption, fluid balance), 5090 (Adults), 6030 (Education theories and techniques for adults)

**Learning Objective:** Participants will be able to describe the effect of caffeine on hydration status in adults.

**Funding Source:** None
# Eat Smart Idaho: Bridging Nutrition Education and Environmental Change for Low-Resource Idahoans

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Abstract: Two-thirds of Idaho adults and 30% of youth are overweight or obese, putting them at risk for chronic disease. While healthy diet and regular physical activity decrease odds of obesity related diseases, one in five children and 14% of Idahoans overall experience hunger or food insecurity due to a lack of money or resources. The percent of Idaho adults reporting regular physical activity and daily fruit and vegetable intake decreases as income decreases and the number of Idaho middle and high schools offering fruits or non-fried vegetables at school celebrations has decreased. University of Idaho Extension’s Eat Smart Idaho program promotes behavior change by educating low-income adult and youth participants about dietary food quality, food security, food safety, and physical activity. Recently, programming has expanded beyond direct education to engage community partners in projects and activities that support social marketing messages and policy, systems, and environmental (PSE) changes to make the healthy choice the easy choice. In Federal Fiscal Year 2017, Eat Smart Idaho partnered with over 200 community partners to provide education and PSE changes in 37 of Idaho’s 44 counties. Adults (n=1192) and youth (n=3946) direct education class series graduates reported improvements in daily physical activity (50%), dietary intake (57%), food resource management (66%), and food safety practices (43%). Healthy eating, active living social marketing messages reached an estimated 215,717 low-resource individuals and environmental changes were made in 29 schools and 41 food pantries/food drives to help make the healthy choice the easy choice.

Learning Objective: Participants will learn how Eat Smart Idaho programming combines direct education and environmental change projects to promote behavior change in low-resource Idahoans.

Funding Source: Eat Smart Idaho is supported by two USDA grants: Supplemental Nutrition Assistance Program Education (SNAP-Ed), in partnership with the Idaho Department of Health & Welfare and the United States Department of Agriculture Food and Nutrition Service, and EFNEP (Expanded Food and Nutrition Education Program), in partnership with the USDA National Institute for Food and Agriculture.