

POSTER SESSION: SCIENCE/EDUCATION/MANAGEMENT/FOODSERVICE/CULINARY/RESEARCH

TITLE: USING LEARNER-CENTERED DELIVERY IN FOOD STAMP NUTRITION EDUCATION LESSONS

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LEARNING OUTCOME: Participants will understand the challenges and successes Food Stamp Nutrition Education educators have in implementing learner-centered education techniques with low-income audiences.

TEXT: The purpose of this study was to investigate the challenges and successes California Food Stamp Nutrition Education (FSNE) educators have in implementing learner-centered education (LCE) with low-income audiences. Early in 2004, University of California-FSNE faculty conducted statewide regional trainings to prepare FSNE nutrition educators to use learner centered education techniques. Six months after the training, we emailed a brief survey to all FSNE educators in California (n=67) to assess the challenges educators face in using LCE approaches in their classrooms. Respondents to the survey indicated that they were doing "okay" or "very well" in implementing learner-centered techniques. Techniques used less successfully included ground rules, ice breakers, partner activities, and goal setting. After completing the survey, FSNE educators were invited to participate in a focus group that delved more into the challenges and success of using LCE techniques. Focus group participants (n=15) have tried many learner-centered techniques taught at the training, although not all are universally successful. In response to open-ended questions, about one third reported challenges in dealing with inadequate space and/or time constraints. Using analysis of variance, we did not see that the degree of success of implementation varied by program (i.e., youth, adult or both), but there was a tendency for educators who worked for FSNE longer to have lower implementation scores. Learner-centered education requires advanced preparation and training to implement successfully. Dietitians working in community based programs can use this information to design LCE training programs to help their staff overcome barriers to this delivery method.

FUNDING DISCLOSURE: Funded by the Food Stamp Nutrition Education Program

TITLE: DEVELOPMENT OF A MULTI-SENSORIAL NUTRITION EDUCATION PROGRAM FOR CHILDREN AND THEIR PARENTS: BONE APPETIT! AND THE CALCIUM COOKING CLASS PROGRAM

AUTHOR(S): J.M. Morton, MS; C.M. Bruhn, Ph.D.; Center for Consumer Research, Food Science and Technology Department, University of California, Davis

LEARNING OUTCOME: To understand the importance of sensory enrichment, hands-on cooking experiences, and parental integration in the development of a calcium-themed nutrition education program for preadolescent children.

TEXT: Although bone growth occurs most rapidly during puberty, few children consume the recommended 1300mg of calcium per day for optimal bone health. Research on adolescent education suggests that multi-modal teaching styles are most effective at reaching diverse student audiences and increasing retention of learned material. The objective of this study was to develop and evaluate a multi-sensorial nutrition education program for preadolescent children and their parents that emphasizes consumption of a calcium-rich diet for optimal bone health. The Calcium Cooking Class (CCC) program was designed to provide parent-child pairs with sensory enrichment and hands-on cooking experiences with calcium-rich foods in a fun and safe environment. Fifty recipes were developed, tested, analyzed for nutrient composition, and compiled into a calcium health and wellness guide (*Bone Appetit!*), which was provided to families as a class supplement. A novel recipe format was developed to promote positive parent-child interactions and improve cooking efficiency. Thirty-nine children and 35 parents participated in the program. Pre- and post-class questionnaires and qualitative observation assessed changes in calcium-specific knowledge, attitudes, and behaviors. Parent and child response to the program was extremely positive. After the CCC, children were significantly ($p < 0.05$) more likely to correctly identify good sources of calcium and agree that cooking is an important skill. The majority of children (81%) and parents (95%) made at least one *Bone Appetit!* recipe following class participation. The pilot test of the CCC program produced a lasting impact on calcium awareness and self-reported dietary changes within the study population.

FUNDING DISCLOSURE: USDA Regional Research Project, "Parent and Household Influences on Calcium Intake Among Preadolescents and their Care Givers," UC Davis Jastro Shields Fellowship, UC Davis and Humanities Graduate Research Award

TITLE: AN ASSESSMENT OF SELF-EFFICACY AND GLUCOSE CONTROL AFTER ATTENDANCE TO A SUMMER CAMP FOR CHILDREN AND ADOLESCENTS WITH DIABETES

AUTHOR(S): K.A. Davis, PhD, RD; D.M. Brown, PhD, RD; M. Azria-Evans, PhD, CFLE; C. Connell, PhD, RD; M.K. Yadrick, PhD, RD

LEARNING OUTCOME: After attendance to this poster presentation, the learner will be able to describe the change in diabetes self-efficacy measured after participation in the diabetes summer camping program.

TEXT: The purpose of this research was to measure the relationship between children and adolescents' self-efficacy towards diabetes management and their overall glucose control. A survey instrument was developed to measure self-efficacy towards diabetes management in youth ages 7-18. The instrument was used to measure self-efficacy of a group of youth before and after attending a diabetes summer camp. Self-efficacy was examined for its possible influence on glucose control as measured by glycosylated hemoglobin (HbA1c), using an in-home test kit. The relationships between gender, age, self-efficacy, and HbA1c were also assessed. Results of the diabetes self-efficacy survey indicated an increase in pre-camp self-efficacy score from a mean of $1.28 \pm .31$ to $1.46 \pm .31$ after camp, which was statistically significant, $p < .001$. The difference between pre- and post-camp HbA1c failed to reach statistical significance (pre-camp mean = 8.24 ± 1.24 , post-camp mean = 8.09 ± 1.33 , $p = .50$), demonstrating that there was no measurable change in blood glucose control for the duration of this study. There were no significant differences in post-camp HbA1c and post-camp self-efficacy by age or gender. No statistical relationship was found between mean self-efficacy scores and HbA1c. Gaining greater understanding of the effects of self-efficacy in chronic disease management may provide educators a greater opportunity to provide practical knowledge for application in everyday life. These findings might be applied by health educators in other settings, providing more youth with chronic diseases the chance to increase their self-efficacy regarding disease management and to improve overall health.

FUNDING DISCLOSURE: Supported in part by USDA, ARS Project 6251-53000-003-00D.

TITLE: THE USE OF INTERVIEWING TO ASSESS DIETETIC INTERNSHIP PRECEPTORS NEEDS AND PERCEPTIONS

AUTHOR(S): J.A. Fischer, MS, RD; W. M. Koszewski, PhD, RD; G.M. Jones, PhD; K. Stanek-Krogstrand; University of Nebraska, Department of Nutrition and Health Sciences, Lincoln, NE

LEARNING OUTCOME: To determine the needs of dietetic preceptors in order for them to be prepared to supervise dietetic interns as well as their perception on where today dietetic interns are at on the Model of Life-Long Learning.

TEXT: Twenty-nine out of 40 preceptors participated in this study. All participants completed a scripted interview with the researcher, which included demographics, open ended questions regarding competency based education, frustration as a preceptor, defining roles of teaching precepting, mentoring, prior training, identified barriers of change, and learning needs. The learning needs identified by the preceptors to help them in supervising dietetic interns were: information about the interns and their goals, having specific objectives for rotations, the faculty expectations of the preceptor, teaching methods to use in the workplace, workshops on skills and network with other preceptors, and how to promote critical thinking in dietetic interns. Preceptors perceptions regarding competency based education, the role of the preceptor, and characteristics of effective preceptors were all consistent with accepted standards. Frustration as preceptor was related to the students with inadequate foundation, knowledge and skills, a lack of initiative, or a lack of interest. When describing placement of the student on the novice to expert continuum in the Model of Life-Long Learning, preceptors typically placed the students at the novice to beginner level at the entrance of the supervised practice. It is the expectation that when students enter a dietetic internship they should be at the beginner level. The questions that still need to be answered are: is the expectation in regards to students altered by where the preceptors are at along the continuum or is the demand of the profession greater at the beginning level than what the current dietetic education system can meet.

FUNDING DISCLOSURE: None