



**OPT for Fit Kids Recognitions and Research Summaries  
Center for Nutrition and Activity Promotion  
California State University, Chico  
2003-2007**

**RECOGNITION OF EXCELLENCE**

The Center for Nutrition and Activity Promotion was selected as an Honorable Mention Awardee for the **2007 Campus-Community Partnerships in Health Award** sponsored by this national organization.

OPT for Fit Kids was selected for participation in the American Association of Colleges and Universities and Center for Disease Control and Prevention's **Sumner Symposium** with presentation of the OPT program on Capitol Hill, Wash, DC, 2004.

**IMPACT EVALUATION STUDIES**

**Family Based Nutrition Education as a Component of a University-Community Partnership**

A Cahill, C Wolff, Stephanie B-S, I Morgan

The purpose of this pre-post study was to compare program outcomes of a family-based nutrition education program, LEAP for Families, provided by dietetic students in a service learning placement versus outcomes for services provided by professional nutrition educators. Participants included 52 overweight children and their parents. Participants attended at least 3 nutrition education sessions within a 6 month period. Mean BMI was significantly lower ( $p=0.01$ ) after three sessions ( $27.8 \pm 6.9$ ) compared to baseline ( $28.1 \pm 6.9$ ). The average loss for those children who lost weight (58%) was  $0.8 \pm 0.7$  BMI units or five pounds. The average gain for those who gained weight (42%) was  $0.3 \pm 0.1$  BMI units or two pounds. BMI change was not significantly different for those children receiving services from a professional versus student nutrition educator. All parents reported a significant decrease in the availability of soda ( $p=0.017$ ). Those parents whose children lost weight reported a greater decrease ( $p=.006$ ) in soda availability compared to those whose children did not. Findings support programmatic success in weight management (weight loss or a decrease in the rate of weight gain) and improvements in family based eating patterns when delivered by either student or professional nutrition educators.

**The LEAP For Preschoolers Curriculum Is Effective in Improving Knowledge and Consumption of Fruits and Vegetables among Children and Parents**

MI Garcia, J Charan, J Bordin, C Wolff

Head Start children ( $n=95$ ) in three rural communities received the *LEAP (Lifelong Eating and Activity Patterns) for Preschoolers* curriculum, a 5 week/25 food exposure nutrition education program and were matched by geographical area, age, and ethnicity to the control sample ( $n=49$ ). Target group gain scores were significantly greater than control group scores. Target preschoolers were more aware of the minimum number of fruit and

vegetables needed per day. Parents (n=101) reported increased fruit and vegetable consumption by their children as well as themselves. 42% of the preschoolers were above the 85<sup>th</sup>tile BMI-for-age indicating a high risk for overweight.

### **Evaluation of the LEAP Family-Based Nutrition Education Program**

M Monastra, S Boek, J Hanson, A Johnsen, C Wolff

The family-based nutrition education/weight management program, LEAP (Lifelong Eating and Activity Patterns) for Families, resulted in significant positive changes in eating and activity attitudes and behaviors for both children and parents. Parental responses indicated significant improvements in limiting television viewing, child's fruit and vegetable consumption, and family fast food consumption. Both parents and children reported significant decreases in high fat foods.

### **Breastfeeding Duration Patterns among Butte County Breastfeeding Support Center Low-Income Participants**

J Cravens, D Vaughn, K Warner, C Wolff

In this cross-sectional, descriptive study, breastfeeding duration patterns were examined for two groups of women. The first included 42 low-income women attending at least one of 10 breastfeeding support meetings over a two month period. The second group was a cohort of 42 low-income women whose infants were born in July 2006 and who received services from the Breastfeeding Support Center during the subsequent six months. 88% of women attending at least one breastfeeding support group were found to be exclusively breastfeeding their infant aged 6 months or under. 59% of the cohort of mothers receiving Breastfeeding Support Center services between July and December 2006 were exclusively breastfeeding when their infant reached 6 months of age. The rate of exclusive breastfeeding in both of these groups surpassed the national objective of at least 50% exclusive breastfeeding at 6 months postpartum. The services offered by the Butte County Breastfeeding Support Center appear to be effective and demonstrate a beneficial impact on breastfeeding duration patterns among low-income women.

### **StepFit Chico: A Step in the Right Direction**

A Johnsen, C Wolff

StepFit Chico is a four week pedometer based walking program for 5<sup>th</sup> grade students. Students in the six low-income schools in the Chico Unified School District (n=157) significantly increased their average number of steps per day from 10,002 to 11,400 over the four weeks. The StepFit Chico program successfully promotes increased physical activity among participating students.

### **NEEDS ASSESSMENT STUDIES:**

#### **An Investigation of Pediatric Overweight in a Rural County in Northern California**

T Drobnik, C Wolff

62 health care providers in Butte County were surveyed regarding the need for the pediatric nutrition education and overweight prevention program, OPT for Fit Kids (Overweight Prevention and Treatment). 100% of respondents either strongly agreed (85%) or agreed (15%) that there was a need. 82% (n=55) indicated there was a high incidence of overweight among their pediatric patients. With a significantly higher rate among low-income vs. non-low-income children.

### **Family Eating and Activity Patterns Are Associated with Overweight Risk Among Low-income Preschool Children**

V Gyovai, J Gonzales, K Ferran, C Wolff

Mothers (n=132) of children (n=141) aged 2-5 participating in the WIC Program in Butte County completed a Family Activity and Eating Habits questionnaire during regularly scheduled WIC appointments. Results include significant correlations between fast food consumption and child's BMI-for-age %tile and mother's BMI and child's BMI such that as mother's BMI increased, child's BMI increased. Mean BMI-for-age %tile were significantly higher for Mexican-American and Asian compared to Caucasian children. 41% of Mexican-American children were  $\geq 85^{\text{th}}$  BMI-for-age %tile.

### **A Needs Assessment for a Nutrition Education & Physical Activity Promotion Program for Young Children in Glenn County**

T Cornwell, R LaGrande, C Wolff

23% of preschool age children (n=336) in Glenn County were overweight ( $\geq 95^{\text{th}}$  percentile), which is well above the national average of 10%. 12% of Caucasian vs. 29% of Hispanic children were either at risk for overweight or overweight indicating a significant health disparity.

### **Overweight, Fruit & Vegetable Consumption, Physical Activity, and the Prevalence of Hypertension in Butte County School-Aged Children**

K Marty, J Murphy, C Wolff

44% of 1,284 low-income 5<sup>th</sup> to 8<sup>th</sup> graders were  $\geq 85^{\text{th}}$  %tile BMI-for-age, significantly higher than the national rate of 30%, and 25% either have or are at risk for high blood pressure. Soda is an independent risk factor for both overweight and elevated blood pressure. Also, as soda intake increased, fruit and vegetable consumption decreased. Fruit and vegetable intake also decreased significantly by grade. Hypertension rates were significantly higher among overweight children.

### **Overweight and Risk Factors for Chronic Diseases in Low-Income 5<sup>th</sup> Grade Students**

J Dye, S Bass, C Himberg, C Wolff

44% of these 280 5<sup>th</sup> grade low-income students in Chico Unified School District were either overweight or at risk for overweight. 13% were positive for acanthosis nigricans (AN) and 25% had a blood pressure reading indicative of either pre-hypertension or hypertension. Soda and fruit consumption were negatively correlated. Rates of overweight and elevated blood pressure were higher for less physically active students. BMI is an independent risk factor for both HTN and AN.

### **Diet, Overweight, Hypertension, and Diabetes Risk among Native American students**

S Chun Hoang, D Flannery, C Wolff

48% of these 85 (70% were Native American) students were either overweight or at risk for overweight and 14% were positive for AN. BMI was positively associated with the presence of AN. Students who had positive attitudes regarding fruit and vegetable consumption had a significantly lower mean systolic blood pressure vs. those who do not. Results suggest that significant numbers of students in this sample are positive for AN, overweight, and are at risk for HTN.