Eating competent low-income parents model eating behaviors associated with reducing risk of child obesity

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Abstract

Eating competence of low-income parents of 3rd, 4th or 5th graders was assessed with the Satter Eating Competence Inventory for Low-Income (ecSII-L) audiences (n=309) and compared to parent self-efficacy in providing and preparing fruits and vegetables (FV), their household FV availability, and obesity risk reducing feeding behaviors (e.g. eating breakfast). Parents were mostly Hispanic (78%), female (89%) with some post-high school education (40.2%) and a mean age of 37.2 ± 7.7 y. As a group, 59.9% were eating competent (ecSII-L score ≥ 32), mean ecSII-L score of 33.6 ± 8.5 did not differ between male or female parents. Compared to those with low ecSII-L scores, EC parents had more vegetable types available (4.1 ± 1.6 vs 5.9 ± 1.8, P=0.01) and more frequently prepared meals ate dinners with their child (P=0.032). Overall self-efficacy scores were significantly higher (P=0.032) in EC parents, they felt more able than non-EC parents to include FV in snacks and meals (4.1 ± 0.9 vs 4.7 ± 0.9, P=0.006) and more frequently prepared meals ate dinners with their child (P=0.032). Parent modeling of positive eating behaviors was significantly greater in EC than non-EC parents (P=0.001). EC parents were more likely to eat breakfast, dinner and FV with their child (P=0.04). Findings contributed to ecSII construct validity and suggested school-age nutrition education outcome assessments include measures of parental eating competence. Funded by USDA-CSREES-NEI-2007-05002.

Studying Importance

We assessed eating competence (EC) of low-income parents of 4th grade participants in Cooking with Kids® 1 a school-based cooking experience.
Food selection, role modeling and other eating-related behaviors of parents of 4th graders were compared with parent EC level to examine the relationship between parent EC and their child-directed food behaviors.

WHAT IS THE SATTER EATING COMPETENCE MODEL?

- A bio-psychosocial model consisting of four components that address intrapersonal approaches to eating and food-related behaviors.

- Synergy between PERMISSION and DISCIPLINE: Permission to choose enjoyable foods and eat in satisfying amounts, Discipline to provide regular and reliable meals and snacks planned to satisfy nutritional needs as well as food preferences.

- ECI is associated with a lower body mass index in addition, lower levels of stress, body dissatisfaction, and disordered eating lower EC. Self-reported physical activity levels are greater in EC persons.

- EC is associated with more favorable cardiovascular biomarkers, such as higher HDL-cholesterol concentration, lower triglyceride and LDL cholesterol levels. Systolic and diastolic blood pressure are lower in EC parents.

- Restless intake is higher and intakes of fruit, legumes, cereals, olive oil and nuts are higher in EC. Competent eaters show greater adherence to a Mediterranean diet.

WHY STUDY EATING COMPETENCE?

- Predictive of BMI, waist circumference, blood lipids.

- Predictive of weight status in adolescents.

- Predictive of risk status in adults and adolescents.

- Predictive of cardiovascular disease risk status.

Methods

Data Collection, 4th grade teachers participating in Cooking with Kids® (a school-based cooking experience) provided students with an explanatory cover letter and an enrolled survey booklet labeled with the child’s name to take home. 89% completed the survey at home and returned it to school in the accompanying envelope. Study personnel collected completed surveys from the teachers. Individual students not returning a survey were not assigned to the group. Parents of two were given a second survey to bring home. The study was approved by the Colorado State University Institutional Review Board for the Protection of Human Subjects.

Parent Eating Competence. How many parents were EC?

Parent booklets included demographic and culinary item scores and four surveys related to eating and food behavior. Culinary item scores 1 related to frequency of food preparation at home, food preparation with children, and having dinner with children (response option were for all responses: 0 (never); 1 (less than 0.5 days/week) to 7 (4 or more days/week)).

Comparison of EC and Not EC Parents

Survey Description of Participants, Respondents were mostly Hispanic females with some post-high school education. Age ranged from 22 to 73 years, mean 37.2 ± 7.8 years; median 35 years; 38.5% were married, 3.9% were single.

Comparison of EC and Not EC Parents

Parent Self-Efficacy

Parent self-efficacy survey scores were significantly higher (4.56, P=0.002) in EC parents (4.65 ± 0.13, n=104) than not EC parents (4.19 ± 0.09, n=195). Differences between EC and not EC parents were significant for many self-efficacy scores.

Eating Competence

Parent eating competence survey scores were significantly higher (4.28, P=0.006) in EC parents (4.32 ± 0.07, n=104) than not EC parents (3.87 ± 0.07, n=195). Differences between EC and not EC parents were significant for many self-efficacy scores.

Conclusions/Implications

- Parent EC levels show need for improvement.
- EC parents more frequently model healthful eating behaviors for their children.
- EC parents feel more able to use a recipe and to prepare a meal with their child.

Examination of parent EC may provide a novel approach to understanding school-age nutrition education outcomes. Development of competent eaters is a laudable educational goal.

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