iCook 4-H: Cooking, Eating, and Playing Together

White, A., Franzen-Castle, L., Kattelmann, K., Olfert, M., Colby, S., University of Maine, University of Nebraska-Lincoln, South Dakota State University, West Virginia University, and University of Tennessee

Overview

The iCook 4-H Program is a direct education intervention designed to reach the following objectives: increase cooking skills and culinary self-efficacy, improve openness to new foods, increase frequency and/or quality of meal time with family members, and decrease sedentary time. It is intended for out-of-school settings with the goal of promoting healthy lifestyles for 9- and 10-year-old youth and the adult who prepares their meals. Grounded in the Social Cognitive Theory, interactions among youth, adults, and leaders provide opportunities for observational learning, reciprocal role modeling, and building self-efficacy. **Target Behavior:** Healthy Eating, Physical Activity and Reducing Screen Time, Other: Family engagement/communication and goal setting **Intervention Type:** Direct Education

Intervention Reach and Adoption

iCook 4-H is an out-of-school program for 9- and 10-year-old youths and their main adult food preparer. Primary settings for the program were community centers, Extension offices, and schools with the target audience being low-income, rural, and/or diverse audiences. The program was prepared for broad dissemination using a community-based participatory research (CBPR) approach. CBPR collaborators for the iCook 4-H Study were from Maine, Nebraska, South Dakota, Tennessee, and West Virginia. **Setting:** School gardens, Faith-based community, Indian Tribal Organizations, School (Learn) **Target Audience:** Elementary School, Parents/Mothers/Fathers, Adults **Race/Ethnicity:** White, Black, Native American/American Indian, Hispanic/Latino, Non-Hispanic/Latino
**Intervention Components**

iCook 4-H includes eight, two-hour sessions. Food preparation, physical activity, family engagement/communication, and goal setting are part of each session, and families are encouraged to continue these activities at home between sessions. iCook 4-H has program outcome assessment tools for leaders to use with both youth and adults. Outcome results can help individual leaders measure program effectiveness and can also be collected by administrators for more widespread monitoring of program goals. A fidelity of implementation tool is included to see whether programs are implemented as intended and will also be part of national data collection effort.

**Intervention Materials**

iCook 4-H is a cooking, eating and playing together program designed for 9- and 10-year-olds and their adult meal preparer for out-of-school settings across eight, two-hour sessions.
- Sessions cover food preparation, physical activity, family engagement/communication, and goal setting
- Program assessment tools include outcome and fidelity of implementation
- Supplementary training course can be found at this website

**Intervention Costs**

The curriculum costs $19.99, and it is available for purchase online through the 4-H Mall.

**Evidence Summary**

The following include published papers on iCook 4-H:
- Ripple Effect Mapping Outcomes of a Childhood Obesity Prevention Program From Youth and Adult Dyads Using a Qualitative Approach: *iCook 4-H*
- Food-related behavior and intake of adult main meal preparers of 9-10 year-old children participating in *iCook 4-H*: A five-state childhood obesity prevention pilot study
- Health Disparities Score Composite of Youth and Parent Dyads from an Obesity Prevention Intervention: *iCook 4-H*
- The Effect of iCook 4-H, a Childhood Obesity Prevention Program, on Blood Pressure and Quality of Life in Youth and Adults: A Randomized Control Trial
- Development and Testing of Program Evaluation Instruments for the iCook4-H Curriculum

**Evidence-based Approach:** Research-tested
Evaluation Indicators

Based on the SNAP-Ed Evaluation Framework, the following outcome indicators can be used to evaluate intervention progress and success.

<table>
<thead>
<tr>
<th>Readiness and Capacity – Short Term (ST)</th>
<th>Changes – Medium Term (MT)</th>
<th>Effectiveness and Maintenance – Long Term (LT)</th>
<th>Population Results (R)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual</td>
<td>MT1, MT2, MT4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental Settings</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sectors of Influence</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- MT1i. Consuming low-fat or fat-free milk, milk products, or fortified soy beverages
  - Controls decreased dairy foods by 0.26 cup-equivalents/y, whereas treatment youths maintained intake.
- MT2m. Cook healthy foods on a budget
  - Treatment youths increased the mean score on cooking skills 2.5 points more than did control youths.
- MT4c. Cook: cook to proper temperatures
  - For cooking together, treatment group adults increased the mean score 0.7 points more than did controls.

Evaluation Materials

All evaluation materials listed below are included in the curriculum in the appendices section:
- Program evaluation for youth and adults (pre- and post-program) with scoring and scale calculations provided.
- Fidelity of Implementation Tool that can be applied to any session with scoring suggestions provided. Ripple Effects Mapping process and report and map template with additional training and support documents available on the extension campus site.

Additional Information

Website: The 4-H Mall website includes information about the iCook 4-H Curriculum, reviews, and purchasing options. Contact Person: Lisa Franzen-Castle 402-472-7645 lfranzen2@unl.edu