Cooking with Kids 2.0: Plus Parents and Play

GOALS & OBJECTIVES

Long-term goals of Cooking with Kids 2.0: Plus Parents and Play (CWK 2.0) are to reduce the risk of childhood obesity by promoting healthful food and activity environments, policies and behaviors through:
1) building and testing the efficacy of a 4th grade comprehensive school- and family-based intervention,
2) applying it to an after-school setting, and,
3) disseminating both versions through outreach efforts.

Research Objectives (Years 1-3)

Accomplished
1) Conduct a review of the Cooking with Kids curriculum and assessment tools for alignment with a. Colorado academic content standards and b. Tenets of effective nutrition education.
2) Based on this review, revise the Cooking with Kids curriculum (CWK 2.0) and assessment tools;
3) Combine CWK-inspired school lunch recipes with a behavioral economics approach to improve student choices in the cafeteria;
4) Implement the 3-part school-based intervention: CWK 2.0 curriculum + SPARK Active Recess + cafeteria program in 8 low-to-moderate-income schools for 2 years;
5) Develop a family-based companion program to the school intervention (F. CWK 2.0);
6) Test the impact of the CWK 2.0 school-based intervention with and without About Eating, or CWK 2.0 progress against non-treatment groups.

In Progress
3) Disseminating both versions through outreach efforts.
2) Applying it to an after-school setting, and,
1) Building and testing the efficacy of a 4th grade comprehensive school- and cafeteria training for school partners and
3) Developing social marketing assessment to develop program branding (Fuel for Fun) for 4th grade teachers, cafeteria training for school foodservice staff, SOPLAY and SPARK Active Recess training for community partners and
2) Providing evidence-based childhood obesity prevention training and research experiences to graduate and undergraduate nutrition/dietetics, exercise science, and pre-service education students.

INTERVENTION COMPONENTS

1) CWK 2.0 Classroom – hands-on cooking and tasting lessons developed to enhance cooking skills and provide positive experiences with a wide variety of wholesome, healthy foods.
2) Sports, Play, and Active Recreation for Kids (SPARK) Active Recess program – promotes quality, daily, physical activity in youth and is designed to encourage maximum participation for every player, regardless of ability.
3) CWK 2.0 Cafeteria – links the classroom lessons to healthful foods in the school cafeteria and uses a variety of strategies to encourage students to make more healthful choices.
4) CWK 2.0 Family – designed to engage parents, encourage their participation and reinforce what students experience through the CWK 2.0 classroom, recess, and cafeteria components.
5) About Eating – a 6-lesson, on-line healthy eating and activity resource for parents.

EDUCATION OBJECTIVES

1) Effectively apply research-derived CWK 2.0 products and processes to an after-school setting;
2) Provide Community Readiness training to Colorado FCS and 4-H extension agents;
3) Utilize Community Readiness strategies to identify school districts and communities ready to adopt the CWK 2.0 school- or after-school program; and
4) Design, disseminate, and evaluate CWK 2.0 program and training resources for stakeholders at the local, state, and national levels.

RESEARCH DESIGN

PARTICIPANTS

District B: 27,000 students
- White
- Hispanic
- Asian
- African American

District A: 15,000 students
- White
- Hispanic
- Asian
- African American

ACCOMPLISHMENTS & RESULTS

Year 1 Accomplishments

- Based on all consents returned average participation rate of 82%;
- 409 students completed survey and height/weight data;
- Administered parent surveys online (88 parents took the pre-survey and 32 took follow-up survey).
- Developed follow-up telephone interview for 25 parents.
- Accelerometry data gathered at 3 schools from 130 children (110 parents);
- SOPLAY assessments completed at all 8 schools;
- Plate waste assessed from 634 student trays;
- Produced: a database to house all student & parent level data; a plate waste database; and Qualtrics to facilitate SOPLAY data entry and the creation of a SOPLAY database.
- Adapted 5 cooking and 5 tasting classroom lessons to meet CO academic standards;
- Finalized the About Eating online parent program;
- Drafted and piloted tested the booths and activities to be included in Family Fun Night;
- Conducted social marketing assessment to develop program branding (Fuel for Fun)

Results from Fall 2012 Student Survey

- From the year 1 cohort pre-surveys, we examined the link between cooking/food prep experience and gender on 4th-grade self-efficacy (SE), attitudes (AT) toward cooking, and fruit and vegetable preferences (FP, VP).
- Our previously tested survey with 4 scales was administered in 22 classrooms in 8 schools. Surveys were completed by 409 students (47% boys, 76% white).
- Mean scores differed significantly by gender (boys, girls respectively).
- VP was similar between genders.
- For all measures, cooking was associated with higher scores (P < .003).
- Proportion reporting pre-cooking experience was 3.1 girls; none was 3.1 boys.
- Controlling for gender revealed all scores continued significantly higher for cooking students. Also, SE and AT gender and cooking interactions were significant.
- Cooking boys scored 3.5 to 4.2 AT points higher; this difference was < .25 for girls.
- Difference in SE scores of those with and without participation in family food prep was 6.5 for boys and 3.7 for girls.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>1st Grade</th>
<th>Year 1 Activity</th>
<th>Year 2 Activity</th>
<th>Year 3 Activity</th>
<th>Year 4 Activity</th>
<th>Year 5 Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Grade Group A</td>
<td>A1 About Eating, **</td>
<td>A2 No s.CWK 2.0</td>
<td>A1 About Eating, **</td>
<td>A2 No s.CWK 2.0</td>
<td>A3 No s.CWK 2.0</td>
<td>A2 Assess Only</td>
</tr>
<tr>
<td>2nd Grade Group</td>
<td>A1 About Eating, **</td>
<td>A2 No s.CWK 2.0</td>
<td>A1 About Eating, **</td>
<td>A2 No s.CWK 2.0</td>
<td>A3 No s.CWK 2.0</td>
<td>A2 Assess Only</td>
</tr>
<tr>
<td>3rd Grade Group B</td>
<td>A1 About Eating, **</td>
<td>A2 No s.CWK 2.0</td>
<td>A1 About Eating, **</td>
<td>A2 No s.CWK 2.0</td>
<td>A3 No s.CWK 2.0</td>
<td>A2 Assess Only</td>
</tr>
<tr>
<td>4th Grade Group A</td>
<td>A1 About Eating, **</td>
<td>A2 No s.CWK 2.0</td>
<td>A1 About Eating, **</td>
<td>A2 No s.CWK 2.0</td>
<td>A3 No s.CWK 2.0</td>
<td>A2 Assess Only</td>
</tr>
<tr>
<td>5th Grade Group C</td>
<td>A1 About Eating, **</td>
<td>A2 No s.CWK 2.0</td>
<td>A1 About Eating, **</td>
<td>A2 No s.CWK 2.0</td>
<td>A3 No s.CWK 2.0</td>
<td>A2 Assess Only</td>
</tr>
<tr>
<td>6th Grade Group</td>
<td>A1 About Eating, **</td>
<td>A2 No s.CWK 2.0</td>
<td>A1 About Eating, **</td>
<td>A2 No s.CWK 2.0</td>
<td>A3 No s.CWK 2.0</td>
<td>A2 Assess Only</td>
</tr>
</tbody>
</table>

| PROJECT TEAM |

Project Director: Cunningham-Sabo and Co-Project Director Lohse

Steering Committee: Chair by PD Co-PD, Co-Director, Stakeholder Coordinator Smith, School/Community Stakeholders

Consultants to Steering Committee: Higg, Wansink, Riggs

School/Community Stakeholders: Nigg, Wansink, Riggs

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