Fuel for Fun Impact Study Affirms Positive Effect on Fruit & Vegetable Preference and Approach to Cooking in School Age Youth

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**FUEL FOR FUN IMPACT STUDY AFFIRMS POSITIVE EFFECT ON FRUIT & VEGETABLE PREFERENCE AND APPROACH TO COOKING IN SCHOOL AGE YOUTH**

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**Data Collection**

Results were surveyed in class at baseline (T1), 7 months later (follow-up 1/T2) and at the start of the next school year (4 months later; follow-up 2/T3) by trained research personnel; make-up opportunities were scheduled for children absent on day of administration. In addition to scales that measured Fruit and Vegetable Preference (18 items), Attitude toward Cooking (AT; 6 items) and Self-efficacy for cooking and eating fruits and vegetables (5 items), the survey included questions on cooking experience (3 items), attitudes toward eating (3 items), and physical activity (8 items).

**Background**

In a randomized, controlled, multi-year study with a convenience sample of 8 elementary schools, 80% of students received usual nutrition education and served as controls. In 4 schools parents were exposed to About Eating 2, an online food resource management and eating behaviors program; parents in the remaining 4 schools did not receive treatment. Cohort 2 students participated in Fuel For Fun throughout the school year. Parents were in 1 of 4 treatment groups: About Eating, Family component, both About Eating and Family component, or control.

**Control (C): Usual health and nutrition curriculum**

Fuel For Fun (FFF): Academic year program components:

- Hands-on cooking and tasting classroom lessons based on Cooking With Kids™
- Active recess program
- Cafeteria lessons linked to cafeteria fruit and vegetable options
- Family activities to engage parents and families (blog, family night, action packs)
- Online healthy eating and activity lessons for parents

**Summary**

**Results**

Surveys were administered in class at baseline (T1), 7 months later (follow-up 1/T2) and at the start of the next school year (4 months later; follow-up 2/T3) by trained research personnel; make-up opportunities were scheduled for children absent on day of administration. In addition to scales that measured Fruit and Vegetable Preference (18 items), Attitude toward Cooking (AT; 6 items) and Self-efficacy for cooking and eating fruits and vegetables (5 items), the survey included questions on cooking experience (3 items), attitudes toward eating (3 items), and physical activity (8 items).

**Measure**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Purpose</th>
<th>Possible Score</th>
<th>Baseline (T1)</th>
<th>Follow-up 1 (T2)</th>
<th>Follow-up 2 (T3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preference for 7 fruits and 12 vegetables (18 items)</td>
<td>18-90</td>
<td>.82</td>
<td>.81</td>
<td>.83</td>
<td></td>
</tr>
<tr>
<td>Attitude toward cooking and making food (6 items)</td>
<td>6-30</td>
<td>.73</td>
<td>.76</td>
<td>.78</td>
<td></td>
</tr>
<tr>
<td>Self-efficacy for skills related to cooking (8 items)</td>
<td>8-40</td>
<td>.78</td>
<td>.80</td>
<td>.83</td>
<td></td>
</tr>
</tbody>
</table>

Items were summed to form Total, Self-efficacy, and Fruit and Vegetable Preference (Fruit Preference and Vegetable Preference) scales. Baseline differences between treatment groups, gender, and cooking experience were assessed by t-test or Mann-Whitney U as appropriate. Except for Vegetable Preference, all scale scores were cubed to achieve a normal distribution. Data across 3 time points were analyzed with a repeated measures General Linear Model, using a Greenhouse-Geisser correction for the sphericity assumption and controlling for baseline cooking experience. Significance was set at p=0.05.