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Process Evaluation Measures Effectively Assess Fidelity of Fuel for Fun Classroom Lessons

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Process Evaluation Measures Effectively Assess Fidelity of Fuel for Fun Classroom Lessons

Jessica Clifford, MS, RDN; Stephanie Smith, MS, RD; Rae Brandenburg; Barbara Lohse, PhD, RD; Leslie Cunningham-Sabo, PhD, RDN
Objective

• To assess the fidelity of the Fuel for Fun cooking and tasting classroom lessons in year 1 of program intervention using 3 process evaluation measures
Study Design

• Fuel for Fun is a school-based research program, including 5 components:
  
  1) Cooking and Tasting Classroom Lessons
  2) Sports Play and Active Recreation for Kids (SPARK) Active Recess
  3) Cafeteria Connection
  4) Family
  5) About Eating

• Process evaluation for cooking & tasting lessons was conducted in year 1 of Fuel for Fun intervention
Setting and Participants

- 8 elementary schools
- 22 4th grade classrooms
- 476 4th grade students
Intervention

• 5 cooking and 5 tasting lessons in classrooms

5 Cooking Lessons
- Chinese American Fried Rice
- Minestrone
- Black Bean Tostadas
- Llapingachos
- Paella

5 Tasting Lessons
- Introduction with Cantaloupe Sample
- Apples
- Citrus
- Salad Greens
- Peas
Intervention (Cont.)

- Trained **food educators** led all 10 lessons
- Trained **college students** assisted with lessons
- **Cooking with Kids Colorado Curriculum** was used for implementation of lessons
### Outcome Measures and Analysis

3 Process Evaluation Measures:

1) Tested classroom *lesson observation forms* completed by evaluation personnel

2) Classroom *lesson debriefing forms* completed by educators after each lesson

3) Weekly *team meeting transcripts* recorded

* Cunningham-Sabo, L. et al. (2008) JNEB 40: S84
Outcome Measures and Analysis

– Lesson components checklist

Highest Possible Score: 21 cooking 17 tasting

– Classroom management

3 = no problems
1 = major problems

– Student engagement

4 = actively involved
1 = uninterested

• Used descriptive statistics and thematic analysis of observation comments
Results

• Completed in Year 1 of Intervention:
  – 14 classroom lesson observation forms
    • 5 cooking
    • 9 tasting
  – 214 classroom lesson debriefing forms
  – Compiled weekly meeting transcripts
# Results (Cont.)

<table>
<thead>
<tr>
<th>Assessment Component</th>
<th>Mean</th>
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</thead>
<tbody>
<tr>
<td><strong>Lesson Components Checklist</strong></td>
<td></td>
</tr>
<tr>
<td>Cooking (Highest 21)</td>
<td>18.6 (±1.6)</td>
</tr>
<tr>
<td>Tasting (Highest 17)</td>
<td>15.0 (±1.7)</td>
</tr>
<tr>
<td><strong>Classroom Management</strong></td>
<td></td>
</tr>
<tr>
<td>3 = No Problems</td>
<td>2.8 (±.41)</td>
</tr>
<tr>
<td>1 = Major Problems</td>
<td></td>
</tr>
<tr>
<td><strong>Student Engagement</strong></td>
<td></td>
</tr>
<tr>
<td>4 = Actively Involved</td>
<td>3.6 (±.73)</td>
</tr>
<tr>
<td>1 = Uninvolved</td>
<td></td>
</tr>
</tbody>
</table>

This data from observation forms only- see notes for engagement data from Rae's analysis of 99 debrief forms.
Results (Cont.)

• Thematic analysis revealed 3 major findings:

  - Priority to keep children as engaged as possible at all times with hands-on activity
  - Educator flexibility critical when working with teachers and students in the classroom
  - Beneficial to reinforce student behavioral expectations with every lesson
Conclusions and Implications

• Classroom lesson fidelity was maintained while remaining flexible to the classroom situation

• Process evaluation measures were valuable in assessing lesson fidelity in year 1 and in providing direction for future intervention implementation
Funding

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Questions?