Generating Rural Options for Weight-Healthy Kids and Communities: Examining the rural family home nutrition and physical activity environment

Carolyn Booth, URAP Apprentice; Kathy Gunter, PhD, Associate Professor

Introduction

Childhood health is a strong determinant of adult health, including overweight and obesity. Rural children and adults experience a greater obesity prevalence compared to children and adults living in more urban places. The goal of Generating Rural Options for Weight-Healthy Kids & Communities (GROW HKC) is to prevent childhood obesity and promote healthy weight among children and families living in rural places. GROW HKC focuses efforts in rural communities, schools, and families. The data presented here focus on the rural family home environment.

PURPOSE: The purpose of this investigation was to examine the family home food and physical activity environment among rural families.

Methods

We recruited 165 families, including 239 children from three diverse, rural Oregon counties. All enrolled families completed the Family Nutrition and Physical Activity Screening Tool (FNPA) relative to each of their enrolled children. The FNPA measures family and child rules and habitual practices shown to predict child BMI. Higher scores reflect healthier habits.

FNPA item scores range from 1-4 and measure family-level nutrition and activity practices that predict child BMI. Higher scores reflect healthier habits.

Demographic data (Table 1) were also collected on all children and participating child caregivers/parents. Parent/Caregiver education level is presented in Table 2.

Results

Table 3: Participant Responses to Family Nutrition and Physical Activity Survey (FNPA; N=177)

<table>
<thead>
<tr>
<th>FNPA Items</th>
<th>Response Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My child eats breakfast...</td>
<td>0.0%</td>
</tr>
<tr>
<td>2. Our family eats together...</td>
<td>2.3%</td>
</tr>
<tr>
<td>3. Our families eats while watching TV/computer/electronic games...</td>
<td>38.6%</td>
</tr>
<tr>
<td>4. Our family eats fast food...</td>
<td>49.7%</td>
</tr>
<tr>
<td>5. Our family uses a microwave or &quot;ready to eat&quot; foods...</td>
<td>52.0%</td>
</tr>
<tr>
<td>6. My child eats vegetables and fruits at meals or snacks...</td>
<td>1.7%</td>
</tr>
<tr>
<td>7. My child drinks soda pop or sugar sweetened drinks...</td>
<td>58.8%</td>
</tr>
<tr>
<td>8. My child drinks low fat milk at meals or snacks...</td>
<td>21.5%</td>
</tr>
<tr>
<td>9. Our family monitors eating of chips, cookies, and candy...</td>
<td>2.8%</td>
</tr>
<tr>
<td>10. Our family uses candy or sweets as a reward for good behavior...</td>
<td>58.7%</td>
</tr>
<tr>
<td>11. My child spends &lt; 2 hours on TV/games/computer per day...</td>
<td>14.3%</td>
</tr>
<tr>
<td>12. Our family limits TV/games/computer our child watches...</td>
<td>10.2%</td>
</tr>
<tr>
<td>13. Our family allows our child to watch TV/games/computer in his/her bedroom...</td>
<td>52.0%</td>
</tr>
<tr>
<td>14. Our family provides opportunities for physical activity...</td>
<td>1.1%</td>
</tr>
<tr>
<td>15. Our family encourages our child to be active every day...</td>
<td>1.1%</td>
</tr>
<tr>
<td>16. Our family finds ways to be physically active together...</td>
<td>2.2%</td>
</tr>
<tr>
<td>17. My child does physical activity during his/her free time...</td>
<td>2.3%</td>
</tr>
<tr>
<td>18. My child is enrolled in physical activity or sports program...</td>
<td>29.0%</td>
</tr>
<tr>
<td>19. Our family has a daily routine for our child’s bedtime...</td>
<td>2.3%</td>
</tr>
<tr>
<td>20. My child gets at least 9 hours of sleep a night...</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

Table 3 shows proportion of participant responses to each FNPA item.

Discussion

Identifying FNPA items where rural families struggle to engage in habitually healthy behaviors reveals targets for improving environments and behaviors.

Our results suggest intervention strategies should be directed toward:

• Increasing low-fat milk, fruit, and veggie intake
• Monitoring eating of chips, cookies, and candy
• Reducing incidences of rewarding kids with sweets
• Decreasing screen time
• Promoting environmental actions that enable greater participation in organized sports of physical activities

Research supported by the Agriculture and Food Research Initiative of the USDA National Institute of Food and Agriculture, grant #2011-68001-30020 and by the College of Public Health and Human Sciences Undergraduate Research Award Program.