School Programs for Healthy Eating and Physical Activity to Prevent Obesity

Program description:
Programs that focus on healthy eating and physical activity emphasize the balance between energy consumed and energy expended to stay healthy. These programs emphasize well-balanced meals, avoidance of energy-dense, low-nutrient foods and beverages, and the importance of daily physical activity and decreased sedentary behaviors (TV, computer games, etc.). The programs may also focus on self-awareness (e.g. exercise logs) and behavioral skills. These programs are typically taught by classroom or physical education teachers and compared to the standard health curriculum. In some school-based programs, integrated school-wide strategies to alter the school environment to support healthy eating and physical activity are used; such strategies include improving the nutritional content of cafeteria food or school vending machines, banning advertising of energy-dense products in school space, improving exercise facilities and play equipment, promoting events like “bike to school” days, and changing school policies (e.g. not selling candy for fundraising).

Typical age of primary program participant: 9
Typical age of secondary program participant: N/A

Meta-Analysis of Program Effects

<table>
<thead>
<tr>
<th>Outcomes Measured</th>
<th>Primary or Secondary Participant</th>
<th>No. of Effect Sizes</th>
<th>Unadjusted Effect Sizes (Random Effects Model)</th>
<th>Adjusted Effect Sizes and Standard Errors Used in the Benefit-Cost Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child obesity – body mass index</td>
<td>P</td>
<td>20</td>
<td>-0.07, 0.03, 0.05</td>
<td>First time ES is estimated 0.05, SE 0.03, Age 11</td>
</tr>
</tbody>
</table>

Benefits and costs were not estimated for obesity prevention programs.

Discount Rates Applied to the Meta-Analysis

<table>
<thead>
<tr>
<th>Type of Discount</th>
<th>Discount Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Less well-implemented comparison group or observational study, with some covariates.</td>
<td>0.5</td>
</tr>
<tr>
<td>2- Well-implemented comparison group design, often with many statistical controls.</td>
<td>0.5</td>
</tr>
<tr>
<td>3- Well-done observational study with many statistical controls (e.g., instrumental variables).</td>
<td>0.75</td>
</tr>
<tr>
<td>4- Random assignment, with some implementation issues.</td>
<td>0.75</td>
</tr>
<tr>
<td>5- Well-done random assignment study.</td>
<td>1.00</td>
</tr>
<tr>
<td>Program developer = researcher</td>
<td>0.5</td>
</tr>
<tr>
<td>Unusual (not “real-world”) setting</td>
<td>0.5</td>
</tr>
<tr>
<td>Weak measurement used</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Studies Used in the Meta-Analysis


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