Predictors of obesity among adolescents with disabilities

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Presenter Disclosure

Mia Papas, PhD

The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

“No relationships to disclose”

Outline

- Describe obesity prevalence among adolescents with disabilities
- Examine physical activity, poor diet, and unhealthy dietary behaviors among adolescents with disabilities
- Evaluate risk factors associated with obesity among adolescents with disabilities
Obesity prevalence for children and adolescents with disabilities

Children with disabilities are more susceptible to obesity

- Differences in body composition
  - muscle mass vs. fat mass
- Medications that increase appetite or decrease metabolism
- Lack of physical activity
- Parents may be over-permissive or over-restrictive regarding food and exercise

Study Population

- 2011 Youth Risk Behavior Surveillance Survey (YRBS)
- 9,775 adolescents in grades 9 – 12
- 4 States: Delaware, North Carolina, North Dakota, Rhode Island
YRBS Disability Status

• Do you have any physical disabilities or long-term health problems (long-term means 6 months or more)?
• Do you have any long-term emotional problems or learning disabilities (long-term means 6 months or more)?

Obesity Status

• Self-reported weight and height
• Sex- and age-specific BMI percentiles were estimated based on reference data from the year 2000 CDC growth tables
• Obesity defined as BMI > 95th %ile

Demographic Characteristics

• 22% of survey respondents reported a physical, emotional, or learning disability
• 51% were female
• 55% in the 9th or 10th grade
• 75% were between 15 and 17 years of age
• Race/ethnicity:
  – 63% were White
  – 20% were Black
  – 10% were of Hispanic or Latino descent
Perception of weight

- Adolescents with disabilities were more likely to be obese
  - 16% obesity among those with disability vs. 10% obesity for those without disability
  - Odds ratio=1.7 (95% CI: 1.3, 2.1)

- 45% of all adolescents stated they were actively trying to lose weight

- Increased odds of trying to lose weight for adolescents with disabilities compared to those without disabilities
  - Odds ratio=1.4 (95% CI: 1.0, 2.0)

Days per week physically active at least 60 minutes

Weekly dietary intake
Unhealthy weight loss behaviors

- Vomited or taken laxatives
  - No Disability: 1, Disability: 12
- Diet pills, powders, or liquids
  - No Disability: 4, Disability: 11
- Fasted within the past 24 hours
  - No Disability: 9, Disability: 20

Predictors of obesity for all adolescents

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Odds Ratio</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>2+ hours of television watching per day</td>
<td>1.2</td>
<td>1.0, 1.4</td>
</tr>
<tr>
<td>2+ hours of video games per day</td>
<td>1.4</td>
<td>1.1, 1.7</td>
</tr>
<tr>
<td>Unhealthy weight loss behaviors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fasting within the past 24 hours</td>
<td>1.7</td>
<td>1.3, 2.3</td>
</tr>
<tr>
<td>Taking diet pills, powders or liquids</td>
<td>1.6</td>
<td>1.1, 2.4</td>
</tr>
</tbody>
</table>

Conclusions

- Adolescents with disability have a higher prevalence of obesity
- Associated with:
  - Decreased physical activity
  - Worse dietary habits
  - Unhealthy weight loss behaviors
- Successful interventions need to target dietary choices, physical activity, and weight control strategies among adolescents with disabilities
Future research

• Measure obesity among children and adolescents with disabilities
• Examine types of disabilities
• Increase participation of children with disabilities in health promotion programs

Thank you!

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