Empowering Families in the Struggle against Childhood Obesity

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Medical Director, Children’s Center for Weight Management
Objectives

At the end of this presentation, participants should be able to:

- Understand the issues within family that affect the incidence of childhood obesity.
- Learn workable solutions and community resources to help families overcome these issues that for positive lifestyle outcomes.
I Wear 2 Hats...

Adolescent Health
- Largely primary care
- 6 physicians, 1 RD
- 11-21 years old
- Metro Birmingham

Childhood Obesity
- Multidisciplinary clinic
- MD, PhD, RD, PT, SW
- 2-20 years old
- Referrals across the state
- All patients BMI >99th percentile or comorbidities
Outline

Why are families important?

Lifestyle change within families

Families: Who is ready?

How to guide families through making changes?
US Obesity
Fat as in F. 2013.
# U.S. pediatric statistics

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Obesity Prevalence (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-5</td>
<td>12.1</td>
</tr>
<tr>
<td>6-11</td>
<td>18.0</td>
</tr>
<tr>
<td>12-19</td>
<td>18.4</td>
</tr>
</tbody>
</table>

Ogden. *JAMA*, February 2012
## Alabama statistics

<table>
<thead>
<tr>
<th>Age group</th>
<th>Percentage</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adults</td>
<td>33.0%</td>
<td>5</td>
</tr>
<tr>
<td>High Schoolers</td>
<td>17.0%</td>
<td>1</td>
</tr>
<tr>
<td>10-17 year olds</td>
<td>18.6%</td>
<td>11</td>
</tr>
<tr>
<td>Low income 2-4s</td>
<td>17.1%</td>
<td>20</td>
</tr>
</tbody>
</table>

Fat as in F. 2013.
Why families are important?
Families

- A family is a group of individuals who live together and who are related biologically, legally, or socially. (e.g., an unmarried partner of a parent).

- “Family” is defined as a social unit that provides care, guidance, learning, values, and protection for a child.

  - Parent or adult caregivers (PAC)
A Social-Ecological Model

Individual: genotype, knowledge, beliefs, experience

Interpersonal: Family, friends, social network

Organizational: School, church, etc.

Community: Local culture, natural & built environment

Policies, Laws, Other Cultures
Expert Committee Recommendations Regarding the Prevention, Assessment, and Treatment of Child and Adolescent Overweight and Obesity: Summary Report

Sarah E. Barlow and the Expert Committee

*Pediatrics* 2007;120;S164-S192
DOI: 10.1542/peds.2007-2329C

- Assessment
- Prevention
- Prevention Plus
- Structured Weight Management
- Comprehensive Multidisciplinary Protocol
- Tertiary Care Protocol
Expert Committee Recommendations Regarding the Prevention, Assessment, and Treatment of Child and Adolescent Overweight and Obesity: Summary Report

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- **Assessment**
- **Prevention**
- **Prevention Plus**
- **Structured Weight Management**
- **Comprehensive Multidisciplinary Protocol**
- **Tertiary Care Protocol**
Stage 1: Prevention Plus

- **Everyone** starts here
- **Lifestyle changes**: Diet + Physical Activity
- Lifestyle/behavioral recommendations
- *Jointly* set the agenda
- Small changes, *specific*, lifestyle targets for changes
  - Motivational Interviewing
- **Setting**: Primary Care

*If no improvement after 3-6 mo, advance to next stage*
Stage 2: structured weight management

- Stage 1 rec’s + more structure & support
- Individual or group follow-up
  - visits with a dietitian, exercise therapist or counselor
  - ↑ monitoring (pt/family, provider), goal setting and rewards
- Frequency: monthly or individualized per family needs, risk factors
- **Setting:** Primary care, schools or community

“If no improvement after 3-6 mo, pt should advance to next stage”
Why are families important?

- Children cannot be helped in isolation without considering the family context.
- The family is the primary source of many health beliefs and behaviors that affect the child.
Families: the research

- 80% of obese 10-14yo will remain obese if they have one obese parent. (Whitaker, 1997)
- The child has twice the risk of adult obesity if one parent is obese. (Whitaker, 1997)
- Parents who consume more vegetables have children who consume more vegetables. (Fisher, 2002)
- When parents are more physical active, children are more active. (Holm, 2012)
Lifestyle change within families
Are family changes effective?

- McGovern et. al (2008)
  - Interventions with the family and child had greater weight loss for obese children than intervention aimed at the child alone.

- Faith, et. al (2012)
  - Solely looked at the involvement of adult caregivers
  - Mixed reviews
  - Better results at long term follow up
Core strategies for changing behavior in family-based interventions for pediatric obesity that include parent and adult caregivers.

- Change Environment
  - Stimulus Control

- Identify Behavior to Change
  - Specification of targeted behavior changes

- Change Behavior

- Set Behavioral Goals

- Self-monitor Behavior

- Develop Self-Efficacy and Self-Management Skills

- Positive Reinforcement


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Families: Who is ready?
# Readiness to Change

<table>
<thead>
<tr>
<th>State</th>
<th>Instructional strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Precontemplation</td>
<td>• Engage the individual with information about need for change</td>
</tr>
<tr>
<td></td>
<td>• Provide personalized information about risks if no change and benefits of change</td>
</tr>
<tr>
<td>Contemplation</td>
<td>• Motivate and encourage the individual to set goals and make specific plans</td>
</tr>
<tr>
<td>Preparation</td>
<td>• Help the individual create and implement specific action plans and set realistic goals</td>
</tr>
<tr>
<td>Action</td>
<td>• Provide problem-based (action-oriented) learning experiences</td>
</tr>
<tr>
<td></td>
<td>• Provide social support, feedback</td>
</tr>
<tr>
<td>Maintenance</td>
<td>• Continue to provide social support, assist with problem-solving, positively address</td>
</tr>
<tr>
<td></td>
<td>slips and relapses if necessary</td>
</tr>
<tr>
<td></td>
<td>• Employ reminder systems/performance support tools</td>
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</tbody>
</table>

Scenario #1

1. **No, Not Me.** Pre-contemplation
2. **Well, Maybe.** Contemplation
3. **So, OK. What Do I Do Now?** Preparation
4. **Let's Do This.** Action
5. **It Is Possible.** Maintenance

Adult  Child

http://stageforchange.ca/img/stagesofchangemodel.gif
Scenario #2

http://stageforchange.ca/img/stagesofchangemodel.gif
Scenario #3

http://stageforchange.ca/img/stagesofchangemodel.gif
How to guide families?
Core strategies for changing behavior in family-based interventions for pediatric obesity that include parent and adult caregivers.

Identify behaviors to change

- Limit sugar-sweetened beverages
- Eat 5 servings of fruits and vegetables
- Moderate to vigorous activity 60 minutes a day
- Eat breakfast everyday
- Limit portion sizes
Change the environment

- Limit screen time to no more than 2 hours a day
- Remove TV from child’s bedroom
- Limit eating out, esp. at fast food
- Have regular family meals
Self-monitoring/management

- Who – Parent vs. Child
- Technology
- Supervision is still needed
Positive Reinforcement

- **Relationship dynamics**
- **Role Models**
  - When targeted, parents and children lose weight. (Epstein 1994, Boutelle 2012)
- **Strategies**
  - Praise and recognition
  - Non-food rewards

http://cdn2-b.examiner.com/sites/default/files/styles/image_content_width/hash/8b/b9/8bb9a3e1c2f3c1faf8105a82550c6372.jpg?itok=oXRsevjS
# Parenting Style

<table>
<thead>
<tr>
<th>TABLE 1</th>
<th>Acceptance and Behavioral Control as Determinants of Parenting Style</th>
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<tbody>
<tr>
<td></td>
<td>Parenting Style</td>
</tr>
<tr>
<td></td>
<td>High Acceptance</td>
</tr>
<tr>
<td></td>
<td>Low Acceptance</td>
</tr>
<tr>
<td>High control</td>
<td>Authoritative</td>
</tr>
<tr>
<td>Low control</td>
<td>Indulgent</td>
</tr>
<tr>
<td></td>
<td>Authoritarian</td>
</tr>
<tr>
<td></td>
<td>Disengaged</td>
</tr>
</tbody>
</table>

Adapted from the work of Chassin et al.202
Parenting Style

- **Authoritative parenting**
  - Lower risk for child obesity
  - Improved consumption of healthful food (not vegetables)

- **Authoritarian parenting**
  - 5-fold increased risk of obesity

- **Indulgent or Disengaged parenting**
  - 2-fold increased risk of obesity
  - Associated with high BMI in low income and rural families in the southern US

Fisher, JADA, 2011
A Year of Being Well
Messages from Families on Living Healthier Lives

Narrated by Susan Dell
Summary

- Children can not be helped in isolation. Families provide context.
- Parent and adult caregivers are important in the weight management for children.
- Key areas where families are thought to have an effect are:
  - identifying goals,
  - controlling the environment,
  - monitoring and management of goals,
  - being positive and encouraging roles models.

Parents are powerful!
References


