Tackling Adolescent Obesity: A Practical Approach

Julia Taylor, MD MA
She/her/hers
Adolescent Medicine
Assistant Professor of Pediatrics
jft4p@Virginia.edu
No financial disclosures

Childhood obesity isn't some simple, discrete issue. There's no one cause we can pinpoint. There's no one program we can fund to make it go away. Rather, it's an issue that touches on every aspect of how we live and how we work.

— Michelle Obama —
Objectives

• Understand the impact of stigma and weight bias
• Identify strategies for reducing stigma and weight bias in clinical care
• Review strategies for talking with teens about obesity
Obesity

• #1 chronic health condition in children

• ≈20% of adolescents are obese
Obesity

• Higher in certain populations
  • Economically disadvantaged
    • 2/3 of children are overweight/obese
  • African Americans and Hispanics
    • Higher prevalence across nearly all classes of obesity
Impact of Obesity on QOL

- ↓ HRQOL
  - Schwimmer et al
  - 106 children and adolescents (57 males)
  - 5-18 yrs
  - Self & Parent Report HRQOL

### Table 3. Impaired Health-Related Quality of Life for Obese Children and Adolescents vs Healthy and Cancer Samples

<table>
<thead>
<tr>
<th></th>
<th>Unadjusted Odds Ratio (95% Confidence Interval)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Obese vs Healthy†</td>
</tr>
<tr>
<td>Child self-report total score</td>
<td>5.5 (3.4-8.7)</td>
</tr>
<tr>
<td>Physical health score</td>
<td>5.0 (3.1-8.1)</td>
</tr>
<tr>
<td>Psychosocial health score</td>
<td>5.9 (3.7-9.4)</td>
</tr>
<tr>
<td>Emotional functioning</td>
<td>4.3 (2.7-6.8)</td>
</tr>
<tr>
<td>Social functioning</td>
<td>5.3 (3.4-8.5)</td>
</tr>
<tr>
<td>School functioning</td>
<td>4.0 (2.4-6.5)</td>
</tr>
<tr>
<td>Parent proxy report total score</td>
<td>6.0 (3.8-9.6)</td>
</tr>
<tr>
<td>Physical health score</td>
<td>8.8 (5.4-14.3)</td>
</tr>
<tr>
<td>Psychosocial health score</td>
<td>13.6 (6.2-22.5)</td>
</tr>
<tr>
<td>Emotional functioning</td>
<td>7.4 (4.6-11.9)</td>
</tr>
<tr>
<td>Social functioning</td>
<td>9.0 (5.5-14.7)</td>
</tr>
<tr>
<td>School functioning</td>
<td>8.6 (5.3-13.9)</td>
</tr>
</tbody>
</table>

*Odds ratios represent the number of times the obese sample is more likely than the healthy or cancer sample to have a score of more than 1 SD below the mean for the healthy population. Odds ratios were not adjusted because age, sex, race, and socioeconomic status did not contribute to the scores.

†Healthy data are adapted from published data.
††Cancer data are adapted from published data.
Stigma and Weight Bias

• Stereotypes that individuals with obesity
  • Lazy
  • Unmotivated
  • Lack willpower/discipline

• Belief that stigma and shame will motivate people to lose weight

• Health Care Professional
  • Associate obesity with Noncompliance and Nonadherence
  • Spend less time with patients with elevated BMIs
Stigma and Weight Bias

• Victimization, teasing, and bullying
  • ↑ Social isolation
  • ↓ physical activity
  • Avoidance of health care services
  • Binge eating
  • Additional weight gain

• Prejudice, Social Rejection, Discrimination

• Barrier to prevention, intervention, and treatment

Reducing Stigma and Weight Bias

• Be aware of your own attitudes & biases
  • [https://implicit.harvard.edu/implicit/selectatest.html](https://implicit.harvard.edu/implicit/selectatest.html)

  - Do I make assumptions about an adolescent and/or her caregiver’s character, intelligence, abilities, health status, or behaviors based only on their weight?
  - What are my views about the causes of obesity?
  - How does this impact my attitudes?
Reducing Stigma and Weight Bias

Implicit Association Test

Next, you will use the ‘E’ and ‘I’ computer keys to categorize items into groups as fast as you can. These are the four groups and the items that belong to each:

<table>
<thead>
<tr>
<th>Category</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>Excitement, Appealing, Spectacular, Terrific, Magnificent, Fabulous, Friend, Love</td>
</tr>
<tr>
<td>Bad</td>
<td>Rotten, Hate, Tragic, Nasty, Grief, Poison, Detest, Horrific</td>
</tr>
<tr>
<td>Fat People</td>
<td>![Fat People Silhouettes]</td>
</tr>
<tr>
<td>Thin People</td>
<td>![Thin People Silhouettes]</td>
</tr>
</tbody>
</table>

There are seven parts. The instructions are:

During the IAT you just completed:

Your responses suggested a slight automatic preference for Thin people over Fat people.

https://implicit.harvard.edu/implicit/selectatest.html
Reducing Stigma and Weight Bias

Create a supportive and welcoming environment

- Are chairs able to accommodate all sizes?
- Is the scale in a private area?
- Do we have large adult blood pressure cuffs?
- Are our gowns large enough?

Scale

- Wide based scale that measures > 350 pounds
- Meets established accuracy requirements
- Accessible for patients with disabilities
- Situated in a physical location that offers privacy and confidentiality
- Wide platform with handles for support during weighing
Reducing Stigma and Weight Bias

• Make simple changes in your own practice
  • **Neutral language**
    • BMI, weight, health
  • **People first language**
    • “an adolescent with obesity”

• Ask about experiences of stigma or bullying, self-esteem

• Model behavior for trainees and staff
  • Advocate for ongoing training for both
Reducing Stigma and Weight Bias

• Parents (n=44) of children 2 to 18 yrs
  • “Fat,” “obese,” and “extremely obese” → most undesirable
  • “Weight” or “unhealthy weight” → most motivating

Reducing Stigma and Weight Bias

From: Adolescent preferences and reactions to language about body weight


- N=50, 54% female
- Average age = 17.28 years
- Average BMI = 34.06
- 76% above the 95th%

“Among females, at least 40% reported feeling sad if parents referred to their weight as ‘fat’, ‘big’ or ‘unhealthy weight’”

“44% (females) reported feeling embarrassed if parents described their weight as ‘overweight’, ‘heavy’ or ‘obese’”

<table>
<thead>
<tr>
<th>Words to describe excess body weight</th>
<th>Males (n=23) word preference ratings</th>
<th>Females (n=27) word preference ratings</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overweight</td>
<td>M = 3.48, s.d = 1.41</td>
<td>M = 2.57, s.d = 1.34</td>
<td>2.25</td>
<td>0.030</td>
</tr>
<tr>
<td>Higher body weight</td>
<td>M = 2.96, s.d = 1.22</td>
<td>M = 2.76, s.d = 1.39</td>
<td>0.52</td>
<td>0.607</td>
</tr>
<tr>
<td>Weight Problem</td>
<td>M = 2.57, s.d = 1.20</td>
<td>M = 2.17, s.d = 1.24</td>
<td>1.12</td>
<td>0.269</td>
</tr>
<tr>
<td>Unhealthy weight</td>
<td>M = 2.83, s.d = 1.44</td>
<td>M = 2.65, s.d = 1.30</td>
<td>0.43</td>
<td>0.669</td>
</tr>
<tr>
<td>Weight</td>
<td>M = 3.61, s.d = 1.23</td>
<td>M = 3.76, s.d = 1.39</td>
<td>-0.40</td>
<td>0.693</td>
</tr>
<tr>
<td>Heavy</td>
<td>M = 3.30, s.d = 1.26</td>
<td>M = 2.25, s.d = 1.23</td>
<td>2.91</td>
<td>0.006</td>
</tr>
<tr>
<td>Obese</td>
<td>M = 2.00, s.d = 1.21</td>
<td>M = 1.63, s.d = 0.82</td>
<td>1.25</td>
<td>0.218</td>
</tr>
<tr>
<td>Chubby</td>
<td>M = 1.96, s.d = 1.19</td>
<td>M = 2.21, s.d = 1.18</td>
<td>-0.73</td>
<td>0.469</td>
</tr>
<tr>
<td>Fat</td>
<td>M = 2.09, s.d = 1.31</td>
<td>M = 1.50, s.d = 0.89</td>
<td>1.81</td>
<td>0.078</td>
</tr>
<tr>
<td>Extremely obese</td>
<td>M = 1.87, s.d = 1.06</td>
<td>M = 1.32, s.d = 0.75</td>
<td>2.09</td>
<td>0.042</td>
</tr>
<tr>
<td>Large</td>
<td>M = 2.87, s.d = 1.36</td>
<td>M = 2.28, s.d = 1.17</td>
<td>1.61</td>
<td>0.114</td>
</tr>
<tr>
<td>Plus size</td>
<td>M = 2.30, s.d = 1.30</td>
<td>M = 2.52, s.d = 1.48</td>
<td>-0.54</td>
<td>0.594</td>
</tr>
<tr>
<td>Curvy</td>
<td>M = 2.09, s.d = 1.04</td>
<td>M = 3.44, s.d = 1.61</td>
<td>-3.43</td>
<td>0.001</td>
</tr>
<tr>
<td>Big</td>
<td>M = 3.13, s.d = 1.46</td>
<td>M = 2.46, s.d = 1.29</td>
<td>1.68</td>
<td>0.100</td>
</tr>
<tr>
<td>BMI</td>
<td>M = 2.74, s.d = 1.29</td>
<td>M = 2.64, s.d = 1.56</td>
<td>0.24</td>
<td>0.810</td>
</tr>
<tr>
<td>High BMI</td>
<td>M = 2.70, s.d = 1.36</td>
<td>M = 2.26, s.d = 1.25</td>
<td>1.13</td>
<td>0.266</td>
</tr>
</tbody>
</table>

Abbreviation: BMI, body mass index. Word preferences were rated on a 5-point scale, with higher ratings indicating stronger preference for family members to use the word when talking about the participant’s body weight.
Reducing Stigma and Weight Bias

• Make simple changes in your own practice
  • Neutral language
    • BMI, weight, health
  • People first language
    • “an adolescent with obesity”

• Ask about experiences of stigma or bullying, self-esteem

• Model behavior for trainees and staff
  • Advocate for ongoing training for both
Cassie (14 yo F)

• PMH
  • Asthma
  • Sexual Abuse

• Fam HX
  • Obesity
  • HTN
  • Fibromyalgia

• “Not able to keep up in martial arts”
Cassie (14 yo F)

- BMI 50 kg/m²
Canadian Obesity Network
www.obesitynetwork.ca

ASK for Permission to Discuss Weight
ASSESS obesity related risk and potential ‘root causes’ of weight gain
ADVISE on obesity risks, discuss benefits & options
AGREE on a realistic SMART plan to achieve health behaviour outcomes
ASSIST in addressing drivers & barriers, offer education & resources, refer to provider, and arrange follow-up
Would you be willing to spend a few minutes talking about ways to stay healthy and energized?

Are you interested in knowing more about ways to stay healthy?

Can we take a few minutes to discuss your health and weight?
ASSESS

- Co-Morbidities
  - T2DM
  - HTN
  - Hyperlipidemia
  - NASH
  - PCOS
  - Depression
  - SCFE
  - Sleep Apnea

- BP
- Fasting Glucose/ A1C
- Fasting Lipids
- ALT
- AST
- Vit D?
- PCOS?
ASSESS

• Behaviors
  • Eating Habits
    • Bingeing
  • Activity
  • Screen Time
  • Sleep
  • Environment

What STOPS you from having a healthy lifestyle?

  ___ I enjoy using technology, especially when I'm bored.
  ___ My parents are on my case about my eating habits.
  ___ It's hard for me to be active at the end of the day when I'm tired.
  ___ I feel like I’m being watched or judged when doing physical activity in public.
  ___ It's hard to get back on track when I haven't been active for a while.
  ___ I tend to choose technology over being active (examples: gaming, social media).
  ___ My parents tend to take over the conversation during appointments with my clinicians.
  ___ My parents feel the need to fix everything.
  ___ Unhealthy foods get especially tempting during special occasions and holidays.
  ___ I'm rewarded with unhealthy food on some occasions.
  ___ I feel like I have no control over my sleep (example: how fast to fall asleep).
  ___ My parents and I have different priorities.
  ___ I have a hard time falling asleep because of my anxiety or nonstop thinking.
  ___ Sometimes my weight makes me feel like I don't fit in.
  ___ I have nothing else to do, so I go online or play video games.
Cassie (14 yo F)

- BP - 106/86
- Fasting Glucose - 102
- LDL-C - 110 mg/dL
- ALT – 50 U/L
- Vit D – 15 ng/mL
ADVISE

• For Any Weight
  • Food variety
  • Physical activity
  • Limiting screen time
  • Maintain weight velocity
  • Reassess annually

Make growth and healthy behavior a part of every visit. This can help to de-stigmatize the topics.
ADVISE

• For Adolescents with Obesity
  • Goal is to Stabilize BMI
    • Decrease BMI velocity
    • Safe rate of weight loss ≤ 2 lbs/week
    • DO NOT SET THIS AS THE GOAL

• Benefits of Changing Behaviors
  • Improved Sleep, Self Esteem, Body Image, Energy and Stamina
ADVISE

• For Adolescents with Obesity
  • Explain Need for a Long-Term Strategy
  • Discuss Referral Options
    • Community Exercise Program
    • Registered Dietician
    • Weight Management Clinic
    • Bariatric Surgery
      • BMI $\geq 35$ kg/m$^2$ and a severe comorbidity
      • BMI $\geq 40$ kg/m$^2$ with minor comorbidities
      • Physiologic Maturity
      • No Success after 6+ months
      • Comprehensive medical and psychological services
Cassie (14 yo F)

- I believe that your extra weight is contributing to your asthma and your lack of energy. Making some lifestyle changes could improve your health.
- Offer a referrals
  - Weight Management Clinic
  - Orthopedics
- Provide an RX for Vitamin D
• On sustainable changes rather than on specific weight targets

**What changes could you make?**

• Goals:
  - **Specific**
  - **Measurable**
  - **Achievable**
  - **Relevant**
  - **Timely**

• Referral(s)
  - Pick out 1 new vegetable at the grocery store to try
  - Schedule the intake with the RD
  - I will take my lunch to school twice per week
ASSIST

• Q 2-4 weeks
  • Success is directly related to FREQUENCY of provider contact.
  • *What would make it easier to meet your goals?*
• Sustainable change in BMI over 3-6 months

Stage 2 Structured Weight Management

Where/By Whom: Primary Care Office/Primary Care Provider with appropriate training
What: Same intervention as Stage 1 while including more intense support and structure to achieve healthy behavior change.
Goals: Positive behavior change. Weight maintenance or a decrease in BMI velocity.
Follow-up: Every 2 - 4 weeks as determined by the patient, family and physician. After 3 – 6 months, if the BMI/weight status has not improved consider advancing to Stage 3.
Cassie (14 yo F)

- 4 weeks later
  - Seeing you for “cough”

- Seen in Weight Management Clinic
  - Next f/u 3 mos
  - Mom says its too far to drive

- Saw Ortho
  - Has her osteotomy scheduled

- “Always on the treadmill now”
Cassie (14 yo F)

- Wt loss of 3-4 lbs over past 2-3 weeks.

- Skipping lunch at school
  - Throwing it away

- “Binge” exercising
  - 2-3 hrs on the treadmill
Cassie (14 yo F)

- Touch base with the RD at weight management clinic
  - Establish a goal for 3 meals & 2 snacks
  - Will see her back in 1-2 weeks

- Review goal of 60 min/day of exercise
  - Mom will set an alarm

- Start using her rescue inhaler before exercising

- She is back on track!
Implement strategies for reducing stigma and weight bias

Use a collaborative approach to structured behavior changes

- ASK
- ASSESS
- ADVISE
- AGREE
- ASSIST

Refer & Follow Up!
Tackling Adolescent Obesity: A Practical Approach

Julia Taylor, MD MA
She/her/hers
Adolescent Medicine
Assistant Professor of Pediatrics
jft4p@Virginia.edu


