Mental Health and Pediatric Obesity

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Faculty/Presenter Disclosure

• **Faculty**: Dr. Alène Toulany & Dr. Elizabeth Dettmer

• **Relationships with commercial interests:**
  - Grants/Research Support: None
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  - Consulting Fees: None
  - Other: Sunlife Foundation

• **Potential for conflict(s) of interest:**
  - Speakers have no conflicts of interest
1. Discuss common mental health conditions associated with obesity in children and youth

2. Review implications of mental health diagnoses on obesity management

3. Highlight practical treatment approaches and communication strategies
Overarching Goals

• Improve overall physical & emotional health, quality of life, coordination of care

• Engage patients/families in making healthy lifestyle changes and focus on health behaviours they can control

• Contribute to research aimed at improving our understanding child and adolescent obesity and related co-morbidities

• Educate and support care providers
mental health is everyone’s responsibility
Key Messages

• Healthy, beautiful, strong bodies come in all shapes and sizes
• Weight management is about improving health and well-being, not simply reducing numbers on a scale
• Dispel view that obesity is simply a lifestyle problem or lack of willpower → complex physiological process
• Eating and weight-related problems are not the fault of the parents or the young person
Caregivers often -

• feel criticized for inadequate parenting

• are offended by the automatic assumption that the family is inactive and eating poorly
Weight-based stereotypes

- Overweight and obese individuals are:
  - Lazy
  - Unsuccessful
  - Unintelligent
  - Lack self-discipline, restraint, control
  - Unhygienic
  - Socially inept
  - Noncompliant with weight-loss treatment

Puhl & Heuer, 2010
Am J Public Health, 100(6): 1019–1028
Ebbeling et al, 2002; Warschburger, 2005
Weight discrimination

• Weight discrimination has increased significantly over the past decade
• Now comparable to prevalence rates of racial discrimination in America
• Common perception that weight stigmatization is justifiable and might even serve as useful

Puhl & Heuer, 2010
Am J Public Health, 100(6): 1019–1028
How does weight bias impact the care we provide?
When poll is active respond at PollEv.com/elizabethdet487. Send 34841 and your message to 37607.

How does weight bias impact the care we provide?

Nobody has responded yet. See more.

Hang tight! Responses are coming in.
Our Weight Bias

- Rates of weight bias among educators and health professionals exceed rates in the general population

McVey, Walker, Beyers, Harrison, Simkins, & Russell-Mayhew, 2013
Weight Stigmatization

• Stigmatization triggers emotional stress and undermines adoption of health-promoting behaviors
• Need healthy weight messaging without triggering weight and shape preoccupation
• Potential negative consequences of focusing exclusively on weight instead of overall health

McVey, Walker, Beyers, Harrison, Simkins, & Russell-Mayhew, 2013
Weight Discrimination and Bias

• A nationally representative longitudinal survey in US (N=6,157) examined whether weight discrimination was associated with risk of becoming obese by follow-up among those not obese at baseline

• Participants who experienced weight discrimination were approximately 2.5 X more likely to become obese by follow-up

“Rather than motivating individuals to lose weight, weight discrimination increases risk for obesity”

Sutin & Terracciano, PLOS one, 2013
Cycle of Bias & Obesity

Teasing and Bullying in Adolescence

Adolescent reports of why peers are teased/bullied, and observed frequency ($N = 1555$)

<table>
<thead>
<tr>
<th>Reason for teasing</th>
<th>Primary reason students are teased</th>
<th>Observed sometimes, often, very often</th>
</tr>
</thead>
<tbody>
<tr>
<td>Being overweight</td>
<td>40.8%</td>
<td>78.5%</td>
</tr>
<tr>
<td>Gay/lesbian</td>
<td>37.8%</td>
<td>78.5%</td>
</tr>
<tr>
<td>Ability at school</td>
<td>9.6%</td>
<td>61.2%</td>
</tr>
<tr>
<td>Race/ethnicity</td>
<td>6.5%</td>
<td>45.8%</td>
</tr>
<tr>
<td>Physical disability</td>
<td>3.3%</td>
<td>35.8%</td>
</tr>
<tr>
<td>Religion</td>
<td>1.2%</td>
<td>20.8%</td>
</tr>
<tr>
<td>Low income/status</td>
<td>0.8%</td>
<td>24.9%</td>
</tr>
</tbody>
</table>
Societal Pressures

• Globally, media is a powerful influence on youth today
• Body image messages are ever present & typically imply:
  – Thin women are beautiful, successful, happy
  – Muscular, lean men are handsome, successful

Body Esteem and BMI

• Clear relationship between body esteem and weight classification in youth
  • Youth w/ obesity demonstrate lower self-esteem, higher depression, as compared to ‘normal’ or overweight peers
  • Higher weight status predictor for higher dietary restraint

Goldfield et al., 2010
Weight Bias at Home

• 47% of girls and 34% of boys with higher weights report being teased about their weight by their parents

• 72% of adults at higher weights reported they had experienced weight bias from family members as children

Puhl RM et al, J Sch Health (2011)
Should parents talk to their kids about their weight?
It depends...
Discussing Weight with Children

Preventive Medicine
Volume 93, December 2016, Pages 135–146

Review Article
Can it be harmful for parents to talk to their child about their weight? A meta-analysis

Fiona B. Gillison, Ava B. Lorenc, Ester F.C. Sleddens, Stefanie L. Williams, Lou Atkinson

http://doi.org/10.1016/j.ypmed.2016.10.010

Highlights
- Parental encouragement for weight loss is associated with poorer wellbeing.
- Parental weight criticism is associated with dysfunctional eating in girls.
- Parental encouragement of healthy lifestyles shows no negative effects.
- Interventions to promote positive parent communication benefit wellbeing.
Terminology is Important

Volger et al., 2012
Communicating about Weight

• https://www.youtube.com/watch?v=Jbv5ScID3Ls
Health-Related Quality of Life

Physical

Emotional

Social

School

Zeller & Modi. Obesity. 2006
Tsiros et al. 2009
Obesity and Quality of Life

• Landmark study found that adolescents with obesity rated their QOL very similarly to youth undergoing chemotherapy for cancer treatment (Schwimmer et al., 2002)

• Systematic review including longitudinal studies showed that obesity is a more often a precursor of diminished QOL, not a consequence (Tsiros et al., 2009)
Common Psychological Comorbidities

- Bullying/teasing
- Body image disturbance
- Family discord
- Interpersonal difficulties
- School difficulties/absences
- ADHD or other behavioural problems
- Learning difficulties
- Developmental delay
- Mood disorders (depression and/or anxiety)
Mental Health Status

Characteristics of children and youth attending a tertiary care weight management program

Mental Health Comorbidities (n = 209)

- Learning Disorders
- Anxiety Disorders
- ADHD
- Global Developmental Delay

Percent (%)
Family Issues

- Family share in unhealthy eating habits
- Patient identified as problematic
- Boundary issues
- Siblings with significant medical conditions
- Past and/or current food insecurity
- Parental/family discord
- CAS involvement
Depression and Childhood Obesity

• 21-50% of youth with overweight / obesity report elevated depressive symptoms (McElroy et al., 2004; Abbas et al., 2015, Sheinbein et al, 2019; Wang et al., 2019)

• Meta-analyses of longitudinal studies show the relationship is likely bidirectional (Luppino et al., 2010 JAMA; Wang et al., 2019)
Mechanisms Linking Obesity & Mood Disorders

Obesity → Depression

- Stigma, shame, guilt
- Weight teasing/bullying/social marginalization
- Reduced sleep quality
- Dieting or disordered eating
- Biological factors (impairment neurotransmitter function, inflammation, microbiome)

Depression → Obesity

- Emotional eating/binge eating
- Reduced sleep
- Reduced physical activity + increased sedentary behaviour/screen time
- Dysregulated neurotransmitters that moderate food reward/hunger
- HPA-axis impacts neurotransmitters/appetite hormones (cortisol, GLP1, ghrelin, leptin)
Child Obesity & ADHD

- Children who are overweight or obese are twice as likely to be diagnosed with ADHD (Erhart et al, 2012)

- Data from the National Survey of Children’s Health (N=46,707) indicate 18.9% prevalence of obesity in children with ADHD (Chen et al. 2010)

- 28.6% of adolescents with severe obesity were found to have ADHD (Leib et al, 2019)
How ADHD May Impact Eating

• Difficulty with attention $\rightarrow$ decreased control of overeating

• Impulsivity $\rightarrow$ disinhibited eating patterns

• Dysregulation of the dopaminergic reward systems $\rightarrow$ unhealthy food intake
  /immediate rewards & gratification

• Lack of executive functioning skills (poor planning & organization) $\rightarrow$ difficulties controlling eating behavior

• Inattention $\rightarrow$ lack of awareness in hunger and satiety

Kang & Kwack, 2020
Risk of Eating Disorders

Adolescents who are overweight / obese are 4.91 times more likely to develop an eating disorder compared to their peers.

Veses et al., 2014
Disordered Eating

**Emotional eating**

(Goossens et al. 2009)

**Binge Eating Disorder**

Prevalence of binge/loss of control eating estimated at 26% to 42% for youth with obesity

(He, Cai & Fan, 2017; Pasold et al., 2014; Carriere, et al., 2019)

**Bulimia Nervosa**

Significant increased risk for bulimia in obese relative to normal-weight males (7.86% increase) and females (3.27% increase)

(Flament et al., 2015)
DSM V – Binge Eating Disorder

Recurrent episodes of binge eating (same as bulimia nervosa)

1. Eating much more rapidly than normal
2. Eating until feeling uncomfortably full
3. Eating large amounts of food when not feeling physically hungry
4. Eating alone because of embarrassment
5. Feeling disgusted with oneself, depressed, or very guilty after overeating

Binge eating episodes are associated with ≥3 of the following:

- Marked distress regarding binge eating
- At least once a week for 3 months
- Not associated with recurrent use of inappropriate compensatory behavior
“Attempts to limit calorie intake in children with obesity may also affect the onset and maintenance of binge eating.”

Kang & Kwack, 2020
The Binge Eating Cycle

1. Feel deprived
2. Overwhelming urge to eat
3. Binge
4. Feel out of control and ashamed
5. Diet to regain control
Treatment Goals

Eating Disorders
- Improve body image
- Normalize eating
- Stabilize weight
- Improve quality of life
- Reduce medical comorbidities
- Reduce psychological comorbidities
- Empower families

Obesity
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How can you help?
Change the Focus

• Focus on health & behaviour instead of weight
• Weight stabilization
• Improved self-esteem and quality of life
• Improved fitness
Obesity Counseling

- Weight loss of 5% accrues metabolic benefits
- Weight stabilization can be considered successful if on upwards trajectory
- Other potential benefits as, if not more, important – stress, sleep, QOL, mental health
Health At Every Size Framework

• Size acceptance
• Recognize stigma and biases
• Understand and validate body image concerns
• No-dieting approach (focus on healthy balanced eating instead)
An ideal BMI is not a realistic goal for many children with obesity

- Setting unachievable goals can set-up for failure
- Best BMI is achieved through sustained positive health behaviours
- Important to help children and families improve body image and move towards body size acceptance

Freedhoff & Sharma (2010)
A patient’s best weight is whatever weight they can achieve while living the healthiest lifestyle they can truly enjoy.

Freedhoff & Sharma, 2010
Barriers to Providing Counseling

• Time
• Low financial reimbursement
• Low patient motivation
• Lack of parental support
• Low self-perceived proficiency
• Lack of support (dietitian)

Invest in your Assessment

- Allows you to establish rapport with youth/family
- Let families tell you their story, everyone's perspective separately
- More likely to hear about mental health issues
- Identify facilitators and barriers of change
- Allow additional time/visit for psychoeducation
The 4 M’s of Pediatric Obesity

**Mental**
- Anxiety
- Depression
- Body image
- ADHD
- Learning disorder
- Sleep disorder
- Eating disorder
- Trauma

**Mechanical**
- Sleep apnea
- MSK pain
- Reflux disease
- Enuresis
- Encopresis
- Intertrigo

**Metabolic**
- IGT/T2DM
- Dyslipidemia
- Hypertension
- Fatty liver
- Gallstones
- PCOS
- Medication
- Genetics

**Milieu**
- Parent health/disability
- Family stressors
- Family income
- Bullying/Stigma
- School attendance
- School support
- Neighbourhood safety
- Medical insurance
- Accessible facilities
- Food Environment
- Opportunities for physical activity
Motivational Interviewing
- spirit
- Respectful, collaborative stage
- Nonthreatening, supportive manner

Volger et al. Obesity 2012;
Puhl et al. Pediatrics 2011
Motivational Interviewing

- Uses a nonghostening, supportive manner
- Sets a respectful, collaborative stage
- Asks permission to discuss tough topics and to provide information

Talking about Body Image

- How do you feel about your health; body; weight?
- Do you feel like your weight interferes with anything?
- Does anyone make comments about your body or your weight?
- Do you feel like you spend a lot of time and energy thinking about nutrition or your body?
Assessing Disordered Eating

• Have you ever tried to lose weight?
• Is anyone in your family on a diet?
• Do you ever think of eating when you feel stressed, bored, angry, sad?
• What time of day are you most hungry?
• Does it ever happen that you lose control of your eating – and just can’t stop? Feeling disgusted, depressed, or guilty
Success is different for every child and family
Agree on Goals and Plan Follow Up

• Summarize (written) goals
• Earlier follow-up is better
• Plan for building on changes over time for sustainability
• Setbacks expected → learning opportunity
Evidenced-Based Treatments

Family-Based Therapy:

- Externalization of the illness, blame reduction, parental empowerment, competence, and efficacy in facilitating healthy behaviours
  
  (Eisler, Dare, et al., 2000; Lock & LeGrange, 2005)

Cognitive-Behavioural Therapy:

- Stimulus control, automatic thoughts/feelings, thinking traps, distorted body image, importance of self-monitoring, goal setting, distorted body image

  (Fairburn, 2008; Kang & Kwack, 2020)
Evidenced-Based Treatments

Motivational Interviewing (MI)
- Ambivalence, stages of change, therapeutic relationship, validation, non-judgmental stance
  (Wade et al., 2009)

Dialectical Behavioural Therapy (DBT)
- Affect recognition and regulation, distress tolerance, mindfulness-based strategies
  (Telch et al., 2001; Ritschel, Lim, & Stewart, 2015)
Referrals for specialized services


- Eating disorder programs (for AN, BN, sometimes BED)

- Community dietitians & therapists with a specialty in eating disorders/obesity
Summary

- Obesity and co-morbid mental health problems in children and youth are highly prevalent.
- Addressing obesity requires time and a sensitive approach avoiding shame and blame.
- Choose words carefully as patients have often experienced significant judgement and may be very sensitive.
What if anything will you change in your practice after participating in this ECHO session?