Childhood Obesity and Culture

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Who Am I?

- Aimee Dershowitz, Psy.D., HSPP
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- Concentration in Health Psychology and Child and Adolescent Psychology
- Internship at Family Psychological Center in Harrison, AR
- Psychologist at Four County Counseling Center
“The increasing prevalence and severity of childhood obesity may reverse the modern era's steady increase in life expectancy, with today's youth on average living less healthy and ultimately shorter lives than their parents- the first such reversal in lifespan in modern history (Daniels, 2006).”
Definitions

- **Overweight** is classified as children having BMI values above the 85th percentile and below the 95th percentile for age and gender.
- **Obesity** is classified as above the 95th percentile for age and gender.
Statistics

• Childhood obesity has more than doubled in children and quadrupled in adolescents in the past 30 years.
• The percentage of children aged 6–11 years in the United States who were obese increased from 7% in 1980 to nearly 18% in 2012.
• The percentage of adolescents aged 12–19 years who were obese increased from 5% to nearly 21% over the same period.
• In 2012, more than one third of children and adolescents were overweight or obese.
Statistic Continued

• One out of ten children worldwide is overweight or obese = 155 million children
  • 2-3% (30-45 million) of the population meeting criteria for obesity

• In the United States 33.6% of individuals between the ages of 2 and 19 are overweight and 17.1% of children are at risk of becoming overweight
  • 12.4% of children aged 2 to 5 years are obese
  • 17.0% of children aged 6 to 11 years are obese
  • 17.6% of adolescents aged 12–19 years are obese
2005 Map
• 20% of African-American children are obese
  • 24% African-American girls
• 19% of Hispanic-American children are obese
  • 22% Hispanic-American boys
• 16% of Caucasian-American children
• 13% of Asian-American children are obese
  • 10% Asian-American boys
  • 4% Asian-American girls
  • 26% Asian-American children are overweight or obese
General Risk Factors

- Family history (particularly if parents are obese)
- Low or high birth-weight
- Feeding a child solid food before 3 months old
- Lower parental education level (biggest correlation among multiple studies)
- A single, nonworking parent is correlated with increased obesity
- More than 1 hour of screen time per day, especially if TV is in bedroom or if the child eats in front of the TV
- Higher exposure to advertisements for high caloric foods
- Regularly eating high caloric foods
- Lack of exercise
- Psychological factors
- Socioeconomic factors
- Poor family health habits
- Lack of sleep (less than 8 hours)
- Restriction of caloric intake
Risk Factors Due to Low SES

- Exhibit the highest percentages of overweight/obese children across ethnicities
- Less access to more expensive, but healthier, foods
  - Poorer neighborhoods have a disproportionately higher ratio of fast food vendors to grocery stores
- Increased sedentary behaviors
- Often had different views about what is classified as “junk food” compared to their higher SES peers.
- Many parents work long hours at one or more jobs, have multiple child-care responsibilities (e.g., homework help, recreation, doctor visits, supervision), manage a household, care for aging parents, and try to meet their own personal needs, which leads to a preference for faster convenience foods over healthier options.
Risk Factors in African American Culture

• The perceived ideal body size is larger for African-Americans than Caucasian-Americans, particularly for females
• African-American communities often lack access to affordable healthy foods and eat more high-density caloric foods than income-matched Caucasian peers.
  • African-American neighborhoods have a disproportionately higher ratio of fast food vendors to grocery stores
• The presence and influence of media among African-American households pose a significant challenge to healthy eating and regular physical activity among children.
  • prime time television aimed at African-American audiences had twice the number of food commercials, with less than 7% focused on healthier foods.
• African-American children and adolescents watch an average of five hours and 54 minutes of television daily, often have a TV in their room, and eat in front of the TV more than same-age peers
• Environmental factors involving transportation, infrastructure, and safety limit African-American children’s options for physical activity
• African American (AA) mothers exhibit more food/meal monitoring, restriction practices, pressure to eat, and concern about their child’s weight
Risk Factors in Hispanic Culture

- Hispanic women tend to prefer a thinner shape for themselves, but a plumper figure for their children.
  - Children’s weight status reflects parenting skills, and that having a “skinny” child is a sign of bad parenting and poor health
- Hispanic mothers report using food as a parenting tool to shape children’s behaviors, using “bad” foods (e.g., sweets) to get children to eat “good” foods, pushing the child to eat more, deciding how much the child should eat, and worrying about their child’s overweight and overeating
- Many Hispanic mothers of obese children believe their child to be healthy and are unconcerned about their child’s weight, although these same parents are likely to believe that obese children in general should be taken to a nutritionist or physician for help with weight reduction
- Higher proportions of Hispanics lack health insurance or transportation to health care providers, and even if they do have providers, they exhibit less utilization of the services due to different beliefs about the cause, course, and cure of an illness, the stigma attached to particular illnesses, and interactions between patients and providers
- Hispanic parents are about twice as likely as non-Hispanic whites to encourage children to finish the contents of the bottle and to prop the bottle up to maximize the amount fed.
- Hispanic mothers do not utilize tummy-time with their infants as much as other cultures
Risk Factors in Asian Culture

- Under-control of eating and restriction of foods found to increase BMI (opposite of most other cultures)
- Correlation between increasing age and increasing BMI in Asian children, possibly due to a loosening of food restrictions as they age
Acculturation Factors

- Children who acculturate into American culture rather than maintain traditional customs exhibit a higher rate of obesity, due to an increase in sedentary behaviors (though not a decrease in physical activity) and high-caloric food intake.

- Food insecurity (uncertainty of accessibility to nutritionally adequate foods) is characterized by household concern about ample food supply, which results in the substitution of quality foods with cheaper ones, overeating when food is available, and the reduction of quality and variety in diets.
Health Consequences

**Childhood Obesity medical complications**

- **PSYCHOSOCIAL**
  - Poor self esteem
  - Depression
  - Quality of life

- **PULMONARY**
  - Asthma
  - Sleep apnea
  - Exercise intolerance

- **GASTROINTESTINAL**
  - Pancreatitis
  - Steatohepatitis
  - Liver fibrosis
  - Gallstones
  - Risk for diabetes
  - Risk for colon cancer

- **RENAL**
  - Glomerulosclerosis
  - Proteinuria

- **MUSCULOSKELETAL**
  - Forearm fracture
  - Blount's disease
  - Slipped capital femoral epiphysis
  - Flat feet

- **NEUROLOGICAL**
  - Pneumococcal cerebritis
  - Risk for stroke

- **CARDIOVASCULAR**
  - Dyslipidemia
  - Hypertension
  - Left ventricular hypertrophy
  - Chronic inflammation
  - Endothelial dysfunction
  - Risk of coronary disease

- **ENDOCRINE**
  - Type 2 diabetes
  - Precocious puberty
  - Polycystic ovary syndrome (girls)
  - Hypogonadism (boys)

- **Hernia**

- **DVT/PE**

- **Stress incontinence**

- **Risk of OYN malignancy**
<table>
<thead>
<tr>
<th>System and disorder</th>
<th>Explanation</th>
<th>Estimated prevalence in pediatric populations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiovascular</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypertension</td>
<td>High blood pressure</td>
<td>2.4%</td>
</tr>
<tr>
<td>Left ventricular hypertrophy</td>
<td>Increased thickness of the heart's main pumping chamber</td>
<td>Unknown</td>
</tr>
<tr>
<td>Atherosclerosis</td>
<td>Hardening of the arteries</td>
<td>50% (fatty streaks) 8% (fibrous plaques) 4% (&gt;40 in those with stenosis)</td>
</tr>
<tr>
<td>Metabolic</td>
<td></td>
<td></td>
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<tr>
<td>Insulin resistance</td>
<td>The process in which the action of insulin is retarded</td>
<td>Unknown</td>
</tr>
<tr>
<td>Dyslipidemia</td>
<td>Abnormal changes in cholesterol and triglycerides (fats) in the blood</td>
<td>5-10%</td>
</tr>
<tr>
<td>Metabolic syndrome</td>
<td>Constellation of risk factors including increased waist circumference, elevated blood pressure, increased triglyceride and decreased HDL cholesterol concentrations, and raised plasma glucose</td>
<td>4% overall, 30% in obese</td>
</tr>
<tr>
<td>Type 2 diabetes</td>
<td>A condition in which the body either makes too little insulin or cannot properly use the insulin it makes, leading to elevated blood glucose</td>
<td>1-15 people per 100,000 overall, almost all in obese</td>
</tr>
<tr>
<td>Pulmonary</td>
<td></td>
<td></td>
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<tr>
<td>Asthma</td>
<td>A chronic inflammatory pulmonary disorder characterized by reversible obstruction of the airways</td>
<td>7.0%</td>
</tr>
<tr>
<td>Obstructive sleep apnea</td>
<td>A breathing disorder characterized by interruptions of breathing during sleep</td>
<td>1.0% overall, approx. 20% in obese</td>
</tr>
<tr>
<td>Gastrointestinal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonalcoholic fatty liver disease</td>
<td>Fatty inflammation of the liver not caused by excessive alcohol use</td>
<td>3-8% overall, 50% in obese</td>
</tr>
<tr>
<td>Gastroesophageal reflux</td>
<td>Backward flow of stomach contents into the esophagus</td>
<td>2.20%</td>
</tr>
<tr>
<td>Skeletal</td>
<td></td>
<td></td>
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<tr>
<td>Tibia vara (Blount disease)</td>
<td>Bowing of children's legs caused by a growth disturbance in the proximal tibial epiphysis</td>
<td>Uncommon</td>
</tr>
<tr>
<td>Stipped capital-tarsal epiphysis</td>
<td>A disorder of the hip's growth plate</td>
<td>1-0 people per 100,000</td>
</tr>
<tr>
<td>Psychosocial</td>
<td></td>
<td></td>
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<tr>
<td>Depression</td>
<td>A mood disorder characterized by sadness and loss of interest in usually satisfying activities</td>
<td>1.2% in children, 3.5% in adolescents</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polycystic ovary syndrome</td>
<td>A constellation of abnormalities including abnormal menses, clinical manifestations of such androgen excess as acne and excessive growth of hair, elevated levels of circulating androgens, and polycystic ovaries on ultrasound evaluation</td>
<td>Unknown in adolescents, 5-30% in adult women</td>
</tr>
<tr>
<td>Pseudotumor cerebri</td>
<td>Raised intracranial pressure</td>
<td>Rare</td>
</tr>
</tbody>
</table>

Source: Author's estimates based on various sources.
Mental Health Consequences

- Depression
- More peripheral and isolated interpersonal relationships rather than social relationships with a central network of other children
- Low self-esteem
- Social discrimination and bullying
- Lower quality of life
Treatment

- The treatment must involve the whole family (including extended families within the Hispanic culture)
  - Obesity runs in families
  - It is hard to change behavior when the child is constantly seeing models of poor eating and exercise behaviors
- Behavioral techniques have been found to be effective to help change bad habits into good habits
  - Stimulus control
  - Self-rewarding and external rewards
- The focus needs to be on a combination of diet, exercise, and psychoeducation.
- A multidisciplinary approach is often helpful: pediatrician and nutritionist
- Exercise can be fun if it is portrayed that way!!
Works Cited


Works Cited Continued

Questions