The Obesity Epidemic in African American Women and Girls: How Should Psychology Respond?

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Presentation Overview

- Consequences of obesity
- Intergenerational escalation of obesity
- Factors underlying the obesity epidemic
- How should psychology respond
Obesity Trends* Among U.S. Adults
BRFSS, 1990, 2000, 2010
(*BMI ≥30, or about 30 lbs. overweight for 5’4” person)

Source: CDC:
http://www.cdc.gov/obesity/data/trends.html
The US Obesity Epidemic: Biologic Evolution or Environmental Revolution?
Categories of Weight

- Normal: BMI 18.5 – 24.9
- Overweight: BMI 25 – 29.9
- Obese: BMI 30 – 34.9
- Severely Obese: BMI 35 – 39.9
- Morbidly Obese: BMI ≥ 40
BMI = \left( \frac{\text{WEIGHT (pounds)}}{\text{HEIGHT (inches)}^2} \right) \times 703

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<th>Height in Feet and Inches</th>
<th>Weight in Pounds</th>
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- **Healthy Weight**
- **Overweight**
- **Obese**
Health Consequences of Obesity: % Increased Risk of Death by Weight Status for African American Women

Boggs et al, NEJM, 2011
Percent Above Normal Weight Individuals’ Annual Health Care Costs by Obesity Status and Gender

Andreyeva et al, Obesity Research, 2004
Severe Obesity is Escalating

Sturm Arch Int Med, 2003
Severe Obesity (BMI ≥40) is Escalating in African American Women
Childhood and Adult Obesity are Linked: Percent of Obese Children Who Become Obese Adults by Age

Whitaker at al, NEJM, 1997
Childhood and Adult Obesity are Linked: Percent of Obese Children by Parent Weight Status

Whitaker et al, Am J Clin Nutr 2010
Intergenerational Escalation of Obesity

Whitaker et al NEJM 1997
Whitaker et al Am J Clin Nutrition 2010
Murrin et al BMC Publich Health 2012
The U.S. Obesity Epidemic: How Did This Happen?

Bouchard, Int J Obesity, 2007
The Obesogenic Environment: A Socio-Ecological Perspective

http://depts.washington.edu/waaction/plan/append/a.html
Factors Promoting Increased Calorie Consumption: Increase in US Working Mothers

**PERCENT OF WOMEN WITH CHILDREN IN THE PAID LABOR FORCE, 1975-2008**

- Graph showing the percentage of women with children in the paid labor force from 1975 to 2008.

**FIGURE 2**

*The new workforce*

Share of mothers who are breadwinners or co-breadwinners, 1967 to 2008

- Graph illustrating the share of mothers who are breadwinners or co-breadwinners from 1967 to 2008.

*Source: See Table 1.*

Notes: Breadwinner mothers include single mothers who work and married mothers who earn as much as or more than their husbands. Co-breadwinners include all breadwinners as well as wives who bring home at least 25 percent of the couple's earnings. The data only include families with a mother who is between the ages of 18 and 60 and who has children under age 18 living with her.
Factors Promoting Increased Calorie Consumption: Rise of the US Fast Food Industry

- Number of per capita fast food restaurants doubled between 1972 and 1997 in the U.S.
- % family’s food budget spent on dining out:
  - 1960’s: 21%
  - 2008: 42%
- > 50% of US adults eat fast food ≥1 per week
- 30% of US children eat fast food every day
- Per capita calories in the U.S.
  - 1970: 3250 per day
  - 1997: 3800 per day

http://www.bls.gov/news.release/cesan.nr0.htm
Chou et al, J of Health Economics, 2004
Bowman et al, Pediatrics, 2003
Factors Promoting Increased Calorie Consumption: Rise of the US Soda Industry

Per Capita Consumption of High Fructose Corn Syrup (lbs)

- 1980: 0 lbs
- 1998: 800 lbs

Annual Per Capita Production of 8 oz Servings of Soft Drinks

- 1942: 100 servings
- 2000: 700 servings
Factors Promoting Increased Calorie Consumption: Marketing Fast Food to Youth

CALORIES VIEWED DAILY IN FAST FOOD TV ADS

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Source: The Nielsen Company (ad exposure data) and TV ad nutrition analysis

http://fastfoodmarketing.org/media/FastFoodFACTS_Report_Summary.pdf
Factors Promoting Increased Calorie Consumption: US Farm Subsidies

- US farm subsidies result in mega farms producing so much corn and soybeans that high fructose corn syrup, hydrogenated fats from soybeans, and corn-based feed is kept artificially low, resulting in low prices for fast food, corn-fed beef and pork, and soda.

- No such subsidies exist for fresh fruits and vegetables which are produced in much lower quantities at higher cost to the public.

Fields, Environmental Health Perspectives, 2004
Factors Associated with Decreased Physical Activity: Suburban Living

Relationship between Transport and Land Use

A commonly used study of 32 cities by Newman & Kenworthy in 1989 concluded that there was a strong link between urban development densities and petroleum consumption.

Urban Task Force Partnership: Toward an Urban Renaissance, 1999
Factors Associated with Decreased Physical Activity: School Transportation

Percent of US Children Walking or Biking to School

- All Children
- Children living <1 mile of school

US School Transportation (1999): Percent of Children

1969: 80%
2004: 20%

CDC, 2005

walk or bike: 50%
bus: 40%
car: 60%

CDC, 2002

American Psychological Association
Decreased Physical Activity at School

Percent of US Schools Requiring Physical Education by Grade

<table>
<thead>
<tr>
<th>Grade 8</th>
<th>Grade 10</th>
<th>Grade 12</th>
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<tr>
<td>100</td>
<td>70</td>
<td>30</td>
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Percent of US High School Students Participating in School Sports

- Intramural: 20%
- Varsity: 40%

Johnson et al, Am J of Preventive Medicine, 2007
Factors Associated with Decreased Physical Activity: US Policies

- US Department of Transportation spends most of its money on highways
- Traffic concerns are one of the primary reasons parents do not allow their children to walk or bike to school
- No Child Left Behind policy resulted in decreased access to physical education and recess as schools focus on high stakes testing

http://unstats.un.org/unsd/pocketbook/Pocketbook%202006.pdf
http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5132a1.htm
http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5438a2.htm
http://www.bus.lsu.edu/mcmillin/seminars/anderson_accountability.pdf
Factors Associated with Decreased Physical Activity: Escalating Leisure Time Media Use

Hours Per Day Among 8-18 Year Olds

- White
- Black
- Hispanic

Rideout et al, 2010
Adults Often Fail to Recognize They Are Overweight

I consider myself to be overweight (versus underweight or average weight)

Yancey et al. Obesity 2006
Many Parents Fail to Recognize Their Child is Overweight

I feel my child is

- about the right weight
- overweight

Child BMI percentile: 85-94
Child BMI percentile: ≥ 95

Ecksten et al., Pediatrics, 2006
Many Health Providers Fail to Monitor Adult BMI

% of obese adults who reported their health care provider advised them to lose weight

Galuska et al JAMA 1999
Many Health Providers Fail to Monitor Child BMI

% of obese children identified by provider in a well-child visit

- Louthan et al 2005
- O’Brien et al, 2004
- Rosado et al, 2012
How Should Psychology Respond?

 Traditional Mental Health Response: Practice and Research

- Psychological impact of obesity: Stigma, discrimination, bullying
- Psychological impact on obesity: Stress, depression
- Mental health resilience as a strength
How Should Psychology Respond?

- Expanded Response: Health Using the Social-Ecological Model - Practice and Research

- Individual
  - Mental health concerns remain important
  - Developmental issues – e.g., food & activity preferences
  - Life style behavior change – including an understanding of the role of food and exercise in the person’s life

- Family - cross generational effects on biology, values, beliefs, perceptions, behaviors
How Should Psychology Respond?

- Expanded Response: Health Using the Social-Ecological Model - Practice and Research
  - Systems
    - Schools, including higher education
    - Health care
    - Research enterprise
  - Communities
    - Religious
    - Social
    - Work
  - Policy: Local, State and Federal
How Should Psychology Respond?

- Expanded Response: Health Using the Social-Ecological Model - Practice and Research
  - Requires us to define the characteristics of a health promoting – versus an obesogenic – environment
  - Requires a focus on prevention as well as intervention
  - Requires us to abandon the “personal choice” explanation of obesity while promoting agency at all levels
  - Requires communication at all levels
How Should Psychology Respond?

- Expanded Response: Health Using the Social-Ecological Model - Practice and Research
  - Requires collaboration and partnerships
    - Interdisciplinary research teams
    - Community leaders and decision makers
    - Systems analysis and buy in
    - Partners in advocacy at local, state and federal level
    - Collaboration and support among ourselves
This presentation is available at www.apa.org/president