Breaking through Public Presumptions and Myths about Obesity

Ted Kyle, RPh, MBA
Four Issues for Today

• Pervasive bias
• Myths, presumptions, and facts
• Correlations and causality
• Picturing obesity
Critical Thinking About Nutrition, Obesity, and Health

Perspective on bias
What Is This Bias of Which I Speak?

Bias is an inclination or outlook to present or hold a **partial perspective**, often accompanied by a **refusal to consider** the possible merits of **alternative points of view**. Biases are learned implicitly within cultural contexts. People may develop biases toward or **against** an **individual**, an ethnic **group**, a nation, a religion, a social class, a political **party**, theoretical **paradigms** and **ideologies** within academic domains, or a species.

– Adapted from *Psychology: Contemporary Perspectives*
P. Okami
Two Kinds of Bias Are Pervasive in Obesity

- Intellectual bias favoring personal convictions
- Weight bias directed at people with obesity
Critical Thinking About Nutrition, Obesity, and Health

How does bias infiltrate media, research & policy?
The Impact of Bias Starts with Research & Scientific Literature

- Observational studies
- Short-term endpoints
- Surrogate endpoints
- Publication bias
- Repetitive studies build a bias of familiarity

“Many conjectures commonly advanced as recommendations to reduce weight gain or promote weight loss – ‘eat breakfast every day,’ ‘eat more fruits and vegetables’, ‘eat more meals with family members’, ‘reduce fast food availability’ ‘eliminate vending machines from schools,’ etc. – could be tested and we should challenge ourselves to do so more often.”

Casazza and Allison:
Stagnation in the clinical, community and public health domain of obesity
# Myths and Presumptions Presented as Facts

**Myths**
- Small energy changes add up to big weight loss
- Realistic goals yield better weight outcomes
- Slow weight loss is best
- Readiness to change matters
- PE prevents childhood obesity
- Breastfeeding prevents obesity
- Sex burns 100-300 calories

**Presumptions**
- Breakfast prevents weight gain
- Early exercise and eating habits shape weight for life
- Eating fruits and veggies will reduce weight or prevent gain
- Snacking causes obesity
- Sidewalks and parks prevent obesity

Source: Casazza et al, 2013.01, *NEJM*
## Myths and Presumptions Presented as Facts

### Myths
- Small energy changes add up to big weight loss
- Realistic goals yield better weight outcomes
- Slow weight loss is best
- Readiness to change matters
- PE prevents childhood obesity
- Breastfeeding prevents obesity
- Sex burns 100-300 calories
- *Breakfast prevents weight gain*

### Presumptions
- *Breakfast prevents weight gain*
- Early exercise and eating habits shape weight for life
- Eating fruits and veggies will reduce weight or prevent gain
- Snacking causes obesity
- Sidewalks and parks prevent obesity

Source: Casazza et al, 2013.01, NEJM
Presumptions
Triumph Over Scientific Complexity
Myths and Presumptions Become the Basis for Policy Decisions

• Low-fat dietary recommendations
• Investment in breastfeeding programs to prevent obesity
• Investments to eradicate food deserts
• Restaurant menu labeling
Bias directed at people with obesity
Weight Bias Flows from Common Assumptions About People with Obesity
Weight Bias Flows from Common Assumptions About People with Obesity

Untitled, photograph by Boohoomian / flickr

Photograph courtesy of the UCONN Rudd Center
Health Professionals Harbor Bias Against Patients with Obesity

- Non-compliant
- Lazy
- Lack self-control
- Awkward
- Weak-willed
- Sloppy
- Unsuccessful
- Unintelligent
- Dishonest

Ferrante et al., 2009; Campbell et al., 2000; Fogelman et al., 2002; Foster, 2003; Hebl & Xu, 2001; Price et al., 1987; Puhl & Heuer, 2009; Huizinga et al., 2010.
The best place to start is by simply telling the patient the truth.

“Sir or Madam, it’s not OK to be obese. Obesity is bad. You are overweight because you eat too much. You also need to exercise more. Your obesity cannot be blamed on the fast food or carbonated beverage industry or on anyone or anything else.

You weigh too much because you eat too much.
Your health and your weight are your responsibility.”

Robert Doroghazi, MD

AJM, Mar 2015
Weight Bias
Compounds the Harm of Obesity

Source: UConn Rudd Center
Pictures Tell a Story
More Powerfully Than Words
Pictures Tell a Story
More Powerfully Than Words

Source: http://www.obesityaction.org/oac-image-gallery/
Correlations Provide Clues
But Not Proof of Cause & Effect

To Prevent Obesity, Just Be Sure to Floss
Correlations with Unproven Causality

- High fat diets and obesity
- Food deserts and obesity
- Potatoes and diabetes
Low-Fat Diets: An Uncontrolled Policy Experiment

What if It's All Been a Big Fat Lie?

By GARY TAUBES

If the members of the American medical establishment were to have a collective find-yourself-standing-naked-in-Times-Square-type nightmare, this might be it. They spend 30 years ridiculing Robert Atkins, author of the phenomenally-best-selling "Dr. Atkins' Diet Revolution" and "Dr. Atkins' New Diet Revolution," accusing the Manhattan doctor of quackery and fraud, only to discover that the unrepentant Atkins was right all along. Or maybe it's this: they find that their very own dietary recommendations -- eat less fat and more carbohydrates -- are the cause of the rampaging epidemic of obesity in America. Or, just possibly this: they find out both of the above are true.
Targeting Food Deserts Has Done Little to Reduce Obesity

- Food deserts are found in areas of high obesity
- But many variables confound the relationship
- Reverse causation is a distinct possibility

Fixing Food Deserts May Be A Waste Of Time: Having Access To Healthy Food Won't Improve America's Health

Dec 8, 2015 06:07 PM   By Samantha Olson
Evidence Is Lacking to Vilify Potatoes

- Observational study links potatoes with weight gain and diabetes
- More recent systematic review says no:
  “The identified studies do not provide convincing evidence to suggest an association between intake of potatoes and risks of obesity, T2D, or CVD. French fries may be associated with increased risks of obesity and T2D although confounding may be present.
- See: ConscienHealth, Time to Stop Dumping on Potatoes, 2016
Health Correlations
Proven to Be Cause and Effect

- Trans fats
- Saturated fats
- Whole grains
Summary and Conclusions

• Bias harms the public and media credibility
• Distinguishing myths, presumptions, and facts requires critical thinking
• Distinctions between correlation and causation are often overlooked
• Pictures (and headlines) can undermine even the best reporting