What's Eating You? What Science Tells Us About Food and Weight Issues

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Confirmation Bias

- The tendency to embrace information we agree with and reject information that challenges our beliefs
- Reflection of the influence of desire on our beliefs
- What do we *want* to be true?

Anorexia Nervosa 307.1

- Persistent restriction of energy intake leading to significantly low body weight (in context of what is minimally expected for age, sex, developmental trajectory, and physical health) .
- Either an intense fear of gaining weight or of becoming fat, or persistent behavior that interferes with weight gain (even though significantly low weight).
- Disturbance in the way one's body weight or shape is experienced, undue influence of body shape and weight on self-evaluation, or persistent lack of recognition of the seriousness of the current low body weight.

Subtypes: Restricting type Binge-eating/purging type

Bulimia Nervosa 307.51

- Recurrent episodes of binge eating. An episode of binge eating is characterized by both of the following:
  - Eating, in a discrete period of time (e.g. within any 2-hour period), an amount of food that is definitely larger than most people would eat during a similar period of time and under similar circumstances.
  - A sense of lack of control over eating during the episode (e.g. a feeling that one cannot stop eating or control what or how much one is eating).
- Recurrent inappropriate compensatory behavior in order to prevent weight gain, such as self-induced vomiting, misuse of laxatives, diuretics, or other medications, fasting, or excessive exercise.
- The binge eating and inappropriate compensatory behaviors both occur, on average, at least once a week for three months.
- Self-evaluation is unduly influenced by body shape and weight.
- The disturbance does not occur exclusively during episodes of Anorexia Nervosa.

Pica

Rumination Disorder

Avoidant/Restrictive Food Intake Disorder (ARFID)

Other Specified Feeding or Eating Disorder (OSFED)

Almost but not quite meets the criteria, but causes clinically significant distress and impairment in areas of functioning

Unspecified Feeding or Eating Disorder (UFED)

Binge Eating Disorder 307.51

- Recurrent episodes of binge eating. An episode of binge eating is characterized by both of the following:
  - Eating, in a discrete period of time (e.g. within any 2-hour period), an amount of food that is definitely larger than most people would eat during a similar period of time and under similar circumstances.
  - A sense of lack of control over eating during the episode (e.g. a feeling that one cannot stop eating or control what or how much one is eating).
- The binge eating episodes are associated with three or more of the following:
  - eating much more rapidly than normal
  - eating until feeling uncomfortably full
  - eating large amounts of food when not feeling physically hungry
  - eating alone because of feeling embarrassed by how much one is eating
  - feeling disgusted with oneself, depressed or very guilty afterward
- Marked distress regarding binge eating is present
- Binge eating occurs, on average, at least once a week for three months
- Binge eating not associated with the recurrent use of inappropriate compensatory behaviors as in Bulimia Nervosa and does not occur exclusively during the course of Bulimia Nervosa, or Anorexia Nervosa methods to compensate for overeating, such as self-induced vomiting.

They are all "Disorders of the Pursuit of Weight Loss"

Disorders of the Pursuit of Weight Loss

Severe disturbances in eating behavior and consistent disruption of decision-making based on bodily cues of hunger and satiety that are usually the result of the pursuit of weight loss. Once these practices are initiated, the compensatory mechanisms of the body's attempt to regulate weight become part of a vicious cycle that either intensifies or collapses, leaving the affected person with certain reliable sequelae.

■ Diagnostic criteria for Disorder(s) of the Pursuit of Weight Loss

A. Any or all of the following:

(1) 307.1 Restriction of amount or categories of food that would otherwise be beneficial to the body

(2) 307.5 Binge Eating – eating an amount of food that is well beyond satiety, accompanied by a sense of being out of control

(3) 307.51 Purging – compensatory practices such as compulsive exercise, fasting, vomiting, taking diuretics or laxatives, taking stimulant drugs, for the purpose of weight loss or avoiding weight gain

B. One or more of the above is/are accompanied by at least three of the four below:

(1) Obsessional thinking about food, exercise, and weight
(2) Hostility directed at the self
(3) Disturbed relationship with body – a sense of the body as the enemy of the wishes to be thinner
(4) Diminishing sense of self-control or increasingly brittle sense of control

In addition, code the *frequency* of A/B/C in days per week for the last three months, and whether the frequency is increasing, decreasing, stable, or cyclic.

Example: Axis 1: 307.1 6 days/week, stable
307.5 3 days/week, ↑
307.51 3 days/week, ↑

Obtain a full history of the symptoms and a weight history. On Axis III, note nutritional deficiencies and medical consequences. On Axis IV, note impact on interpersonal and school/work functioning.

Myths

- Weight is determined by “calories in, calories out”
- Weight is controllable
- Weight is a measure of health
- Health can be improved with weight loss

Evaluating Research

- Length of study
- Size and retention of participant group
- Definition of “success” and “significance”
- Unexamined bias

Evaluating Research cont.

- Informed consent
- Conflicts of interest
- Correlation vs. Causation
- “Show me the data!”

Determinants of weight: Genetics

- Adoption study, Stunkard, et al., 1986
- “Set point” Bennet & Gurin, 1984

Determinants of weight: Behaviors

- Biological adaptations to maintain setpoint when intake is restricted (Garner &Wooley, 1991; Leibel, et al., 1995; Macpherson-Sánchez, 2015; Ochner, et al., 2015; Sumithran, et al., 2011)
- Psychological adaptations include increased hunger, hyper vigilance concerning food (Keyes, 1950)

Attempts to change the energy balance

- Restricted intake
- Increased exercise
- “Lifestyle changes”
- Dieting can be defined as a voluntary, self-imposed famine (Macpherson-Sánchez, 2015)

Weight and Health

- Always-thin people are not comparable to previously-fat people
- No clear relationship between health and weight loss (Tomiyama, et al., 2013)
- 23.5% of normal weight adults had metabolic abnormalities; 51.3% of overweight and 31.7% of obese adults were metabolically healthy (Wildman, et al., 2008)

Weight and Health continued

- Mortality rates lowest for BMI 25-30 “overweight” (Flegal, et al., 2013)
- “Normal weight” acute coronary syndrome patients had highest mortality rate (Angeras et al., 2013)
- Stigma and discrimination play a role (Ernsberger, 2009; Lillis, et al., 2011; Schafer & Ferraro, 2011; Sutin, et al., 2014; Sutin, et al., 2015)

Weight and Health continued

- Psychological distress and body dissatisfaction are associated with higher metabolic abnormalities (Becofsky, et al., 2015; Raikkonen, et al., 2002; Wirth, et al., 2014; Wirth, et al., 2015)
- Cardiorespirtory fitness is a better indicator of health (Barry, et al., 2013; Blair & La Monte, 2006)

Unintended Consequences

- Restrictive eating for weight control is a robust predictor of weight gain (Bacon & Aphramor, 2011; Bacon, et al., 2005; Dulloo, et al., 2015; Kater, 2010; Mann, et al., 2007; Siahpush et al., 2015; Tsai & Wadden, 2005).
- Also linked to depression, disordered eating (including binge eating), increased blood pressure, impaired insulin response, increased mortality, reduced self-esteem, and poor health behaviors (O'Hara & Gregg, 2006; Pietiläinen, et al., 2012; Spear, 2006; Tribole, 2012).

Unintended Consequences cont.

- Body dissatisfaction, regardless of size, is associated with poorer health and health behaviors (Bacon & Aphramor, 2011; Muennig, 2008; Saguy, 2013)
- Unexamined assumptions affect medical care (Amy, et al., 2006; Aphramor, 2012; deShazo, et al., 2015; Puhl & Brownell, 2006

Possible Downsides of Public Health Promotions

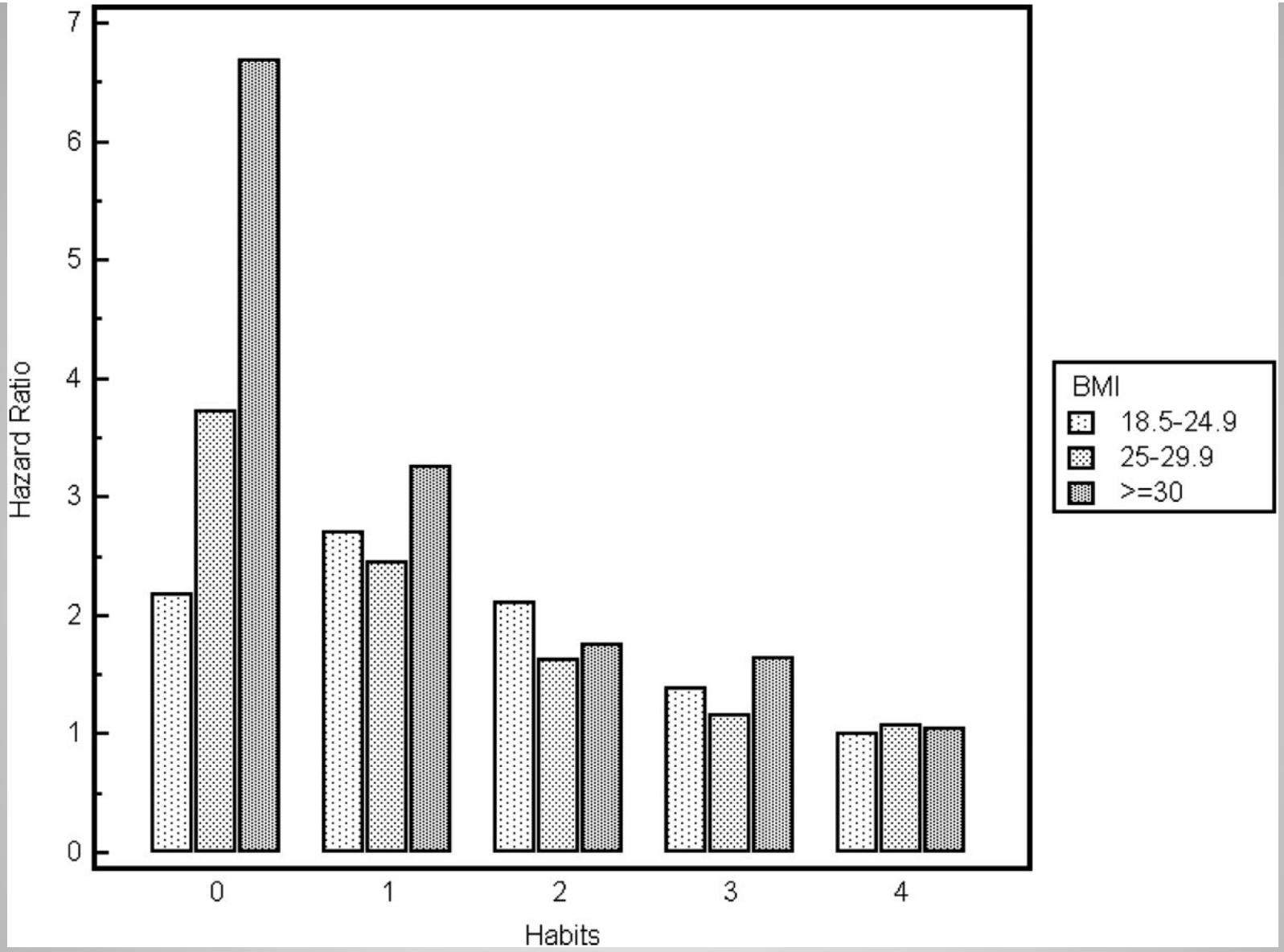
- Who makes the policy and why?
- Social determinants of health
- Self determination
- Scare tactics and VFHT (vague future health threats)
- Deliberate use of shame
- Anorexia is framed as a normal consequence

Weight stigma and psychosocial distress

- ‘When both the prevalence of BD (body dissatisfaction) and the degree of associated impairment are considered, it is apparent that there is a very substantial public health burden of BD at the population level. Hence, the present findings suggest that greater attention may need to be given to BD as a public health problem in its own right… An additional implication of the present findings is that the fact that dissatisfaction with weight or shape is “normative” in industrialized nations should not be taken to infer that it is benign.’ (Mond, et al., 2013 p. 6)

Weight Neutral Interventions

- Better outcomes regarding health behaviors, physiological measures, psychological outcomes, self-esteem, eating behaviors and participant retention (Bacon, et al., 2005; Bacon & Aphramor, 2011; Blake, et al., 2013; Eisenberg, et al., 2013; Kater, et al., 2002; Kelly, et al., 2002; Neumark-Sztainer, 2009; Neumark-Sztainer, Paxton, Hannan, Haines & Story, 2006; Neumark-Sztainer, Wall, Guo, Story, Haines & Eisenberg, 2006; Sonneville, et al., 2012; Tylka, et al., 2014)



Hazard ratio for all-cause mortality by body mass index (kg/m2) and number of healthy habits (i.e., fruits and vegetable intake, tobacco, exercise, alcohol). (Matheson, et. al., 2012.)

Follow the Money

- Weight Cycling Industry
- Pharmaceuticals
- Advertising
- Editorial control
- Research funding and publication

Stealing Our Self Esteem To Sell It Back To Us

- Shame
- Disordered eating
- Body dissatisfaction
- Poorer health behaviors
- Increased anxiety in people of all sizes

Medvedyuk, S., Ali, A., Raphael, D. (2017). Ideology, obesity and the social determinants of health: a critical analysis of the obesity and health relationship. *Critical Public Health*, 1-13.

- "The health effects of obesity are overstated"
- "The emphasis on behavioural remedies set the stage for continued stigmatization and victim blaming when weight reduction regimens fail."
- The effect of weight on health outcomes is minimal when controlling for SDH such as social class, gender or race.

Medvedyuk cont.

- Anti-obesity perspective distracts from SDH and public policy
- Anti-obesity perspective stigmatizes individuals, promoting attitudes that threaten, rather than promote health
- “The balance sheet is clear. Since the anti-obesity perspective does more harm than good, it should be ended.”

Bombak, A. (2014). Obesity, health at every size, and public health policy. *American Journal of Public Health*, *104*(2), 60-67.

- Review of: evidence of metabolic adaptations to resist weight loss; fitness vs. fatness; benefits of weight neutral approaches; and “obesity paradox”
- Public health focus on individual responsibility for weight loss promotes stigma and associated adverse outcomes
- “Obesogenic Environment” is not supported by empirical evidence
- Ethical concerns, including masking discrimination and limiting freedom of choice

Mann, T., Tomiyama, A., Westling, E., Lew, A., Samuels, B., & Chatman, J. (2007). Medicare's search for effective obesity treatments: diets are not the answer. *The American Psychologist*, *62*(3), 220-233.

- Criteria for evidenced based treatment
- Seven studies with control group and at least a two year follow up; 14 observational studies with at least four year follow up; Ten prospective studies with four year follow up
- Found multiple methodological problems

Mann et al., cont.

- Weight loss was not maintained long term; claims of health improvement were inconsistent
- Potential harms of weight cycling are considerable
- “The benefits of dieting are simply too small and the potential harms of dieting are too large for it to be recommended as a safe and effective treatment for obesity.”

Tylka, T., Annunziato, R., Burgard, D., Danielsdottir, S., Shuman, E., & Calogero, R. (2014). The weight-inclusive versus weight-normative approach to health: Evaluating the evidence for prioritizing well-being over weight loss. *Journal of Obesity*, 1-18.

- Focus on weight is associated with adverse physical and psychological outcomes
- Dieting is linked to preventable barriers to health
- The weight normative approach is linked to increased shame, blame, stigma, and decreased well-being
- "The weight normative approach becomes a self-perpetuated dogma"

Tylka, et al., cont.

- Body loathing and shame results in decreased self care; people are more likely to engage in good self care when they feel positively toward their bodies
- Weight neutral approaches result in improvement in health behaviors as well as physical and psychological measures
- Weight stigma is associated with increased caloric intake
- Internalized weight bias is not related to BMI
- Public health messages to “maintain a healthy weight” are unfair and uninformed

Dollar, E., Berman, M., & Adachi-Mejia, A. M. (2017). Do No Harm: Moving Beyond Weight Loss to Emphasize Physical Activity at Every Size. *Preventing Chronic Disease,14.*

- CDC website
- Focusing on healthy behaviors instead of weight loss can decrease stigma, improve health outcomes and strengthen patient-provider relationships
- Acknowledge SDH
- "…that awareness-raising conversations about body weight can do more harm than good."

What To Do?

- Assessment
- Intervention
- Policy
- Consciousness raising

Ethical Concerns

- 1.01 Commitment to clients
- 1.02 Self Determination
- 1.03 Informed consent
- 1.04 Competence
- 1.12 Derogatory language
- 4.02 Discrimination
- 5.02 Evaluation and research
- 6.01 social welfare
- 6.04 Social and political action

Self Esteem and Self Determination

- Education
- Internal and external locus of control
- Message about our own worth
- Adequate nutrition is essential

Policy

- In your own agency
- In your community

Evaluating Resources

- Is the focus on behavior change or weight loss?
- Does it promise weight loss?
- Does it equate weight loss with improved health?
- Does it encourage decision making based on an internal LOC?
- What is it selling?
- Does it acknowledge social determinants?

Online Resources

- neomsw.com
- Dr. NEO on Facebook
- Association for Size Diversity and Health
- haescommunity.com
- jonrobison.net
- fitwoman.com