Breaking Down Fad Diets: Is There a Better Way?

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DISCLOSURES

- No financial disclosures
- But...

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OBJECTIVES:

1. Distinguish fad diets from evidence-based practices
2. Recognize the harms associated with dieting practices
3. Identify a non-diet approach
4. Discuss practice recommendations for health-care providers
THE ISSUE

• 73.6% of Americans are overweight or obese\(^{(1)}\)

• BMI > 30 associated with:
  – Type 2 diabetes, certain cancers, cardiovascular disease, osteoarthritis

• Annual medical cost of BMI > 25: $209.7 billions\(^{(3)}\)

• 21% US healthcare expenditures on obesity-related illness\(^{(3)}\)

• Workforce: $8.64 billion/year lost productivity\(^{(4)}\)

• ~75% of adults have tried to lose weight\(^{(5)}\)

WHAT ARE FAD DIETS?

• Promise a quick fix
  – Rapid results
  – Touted at easy

• Claims: feel & look better

• Unrealistic expectations

• May cause short- or long-term health concerns

Photo credit: (Bon Appetit/Alamy Stock Photo)
1820: Lord Byron introduces the Vinegar & Water Diet

1925: Lucky Strike cigarette promotes “Reach for a Lucky instead of a Sweet”

1977: Slim Fast introduced – a ‘super diet’

1992: Robert Atkins promotes his Atkins diet – high protein/low carb

2011: HCG – uses fertility drug + 500-800 kcal/day

EXAMPLES OF CURRENT DIETS

- OPTAVIA
- Ketogenic diet
- Intermittent fasting
  - Time-restricted eating
  - Alternate day fasting
- Noom
- Celery Juice
AHA: HOW TO RECOGNIZE A FAD DIET

• Magic or miracle foods?
• Proprietary blend
• Claim rapid weight loss
• Weight loss without exercise
• Promote strange amounts of foods
• Elimination of certain foods
• Rigid menu or schedule

THEY’RE TEMPING...

• Peer pressure (FOMO)
  – Family, friends, outside environment
• Media influences
• Placebo effect
• Correlation vs. causation
• Marketing:
  – Confirmation bias
  – Law of very large numbers

FAD DIET VS. LIFESTYLE CHANGE

- **Lifestyle changes:**
  - Patterns that can be maintained long-term
  - Work with:
    - Holidays
    - Travel
    - Social environments
  - Gradual
  - Moderation, not deprivation
THE EVIDENCE:
WEIGHT MANAGEMENT BEST PRACTICES

• Many diets can work\(^{(1, 2)}\):
  – Finding an approach patients can adhere to
  – 500-1,000 kcal deficit; ↑ energy expenditure; CBT
  – Weight loss 5-7% - improvements in obesity-related comorbidities

• Dietary patterns & behavioral strategies:
  – Meal replacements
  – Portion control
  – Logging & tracking

• Weight maintenance-specific strategies:
  – Problem solving, behavioral skills, contingency plans\(^{(3)}\)

“Ultimately, the best diet is the one the patient will follow and incorporate into his or her daily life for lifelong maintenance of a healthy body weight.”

DOES DIETING WORK IN THE LONG-TERM?

“If I gain 20 pounds, it will give me the motivation I need to stick to my diet!”

Image Source: http://www.glasbergen.com
DIETING: ADVERSE HEALTH EFFECTS

• Inadequate nutrient intakes\(^1\)
  – Micronutrients
  – Macronutrients
  – Fiber

• Reduced bone mineral accrual\(^2\)

• Decreased metabolic rate\(^3\)

• One of strongest predictors of weight gain: *dieting*\(^4\)

ADVERSE HEALTH EFFECTS

- Psychological Effects<sup>(1)</sup>
  - Food obsession
  - Distractibility
  - Increased emotional responsiveness; fatigue
  - Low self-esteem
  - Depression
  - Higher rates of disordered eating and eating disorders

AND, WEIGHT IS REGAINED...

• 12+ months out: Weight loss not sustained\(^{(1-4)}\)
  – 50% weight regained in 2 years
  – 5 years: > 80% regained the weight\(^{(3)}\)
  – 1/3-2/3 individuals gained back more weight\(^{(4)}\)
  – Perpetuates cycles of weight loss and weight regain


THE DIETER’S DILEMMA

Desire to Lose Weight

Diet & Restricting Intake

Regain of Lost Weight

Cravings, Reduced Self-Control

Overeating

WEIGHT CYCLING: NOT THE GOAL

• Increased risk for (1-3):
  – Eating disorders and disordered eating
  – Type 2 diabetes
  – Cardiovascular disease
  – Mortality
  – Depression

WEIGHT LOSS MAINTENANCE IS DIFFICULT

• Behavioral Factors\(^{(1,2)}\)
  – Inability to permanently adopt lifestyle behaviors
  – Obesogenic environment

• Biological factors: Energy Gap\(^{(1,2)}\)
  – Increased hunger
  – Decreased total energy expenditure
    • Greater decrease in leptin; Resting Metabolic Rate
    • Decreased Thermic Effect of Food
    • Increased energy efficiency

IT’S NOT THAT SIMPLE...

“Exercise regularly and eat a variety of unprocessed or minimally processed foods with moderate portions.”

Cleveland Clinic: https://my.clevelandclinic.org/health/articles/9476-fad-diets

...Is this helpful?
ETHICAL QUESTION

• If dieting isn’t shown to be effective
• If weight cycling associated with adverse health effects...

Is it ethical to encourage people to lose weight?
Beneficence
Non-maleficence
Justice
WEIGHT STIGMA

• “Negative weight-related attitudes, beliefs, assumptions, judgments toward individuals who are overweight and obese” \(^{(1)}\)

• “The social devaluation and denigration of people perceived to carry excess weight, [which] leads to prejudice, negative stereotyping and discrimination toward those people.” \(^{(2)}\)

• Health professionals are perpetuators of weight stigma

WEIGHT MANAGEMENT CAN LEAD TO WEIGHT STIGMA (Frederick et al. 2016)

1. An individual’s weight is the result of poor food choices
2. Individuals have control over their weight
3. Obesity is a matter of personal responsibility.

The consequences of this model:

- Increases anti-fat prejudice
- Increases discrimination against higher BMIs

WEIGHT DISCRIMINATION

• Contributes to obesity\(^{(1-3)}\)
  – Individuals may avoid treatment
  – Reduced engagement with social support
  – Promotes disordered eating
  – Adoption of less healthful food choices
  – Emotional dysregulation

• Directly linked to overeating, physical inactivity\(^{(4)}\)

WEIGHT DISCRIMINATION

• Independent risk factor (Vadiveloo M & Mattei J, 2017):
  – Allostatic load: highly associated with T2DM, CVD, HTN, mortality
  – Perceived weight discrimination: 2 x 10-yr risk high allostatic load
  – Most strongly associated with
  • Lipid & metabolic dysregulation
  • Glucose metabolism
  • Markers of inflammation
  – Reducing weight stigma may improve weight-loss self-efficacy and attitudes towards exercise

IS THERE AN ALTERNATIVE?

Image source: https://www.shutterstock.com/search/person+different+paths
HEALTH AT EVERY SIZE® (HAES)

1. Weight Inclusivity: Accept and respect the inherent diversity of body shapes and sizes; reject idealizing or pathologizing of specific weights

2. Health Enhancement: Support health policies that improve and equalize access to information and services, and personal practices that improve human well-being, including attention to individual physical, economic, social, spiritual, emotional and other needs

3. Eating for Well-Being: Promote flexible, individualized eating based on hunger, satiety, nutritional needs, and pleasure, rather than any externally regulated eating plan focused on weight control

Source: The Association for Size Diversity and Health
HEALTH AT EVERY SIZE® (HAES)

4. Respectful Care: Acknowledge our biases, and work to end weight discrimination, weight stigma, and weight bias. Provide information and services from an understanding that socio-economic status, race, gender, sexual orientation, age, and other identities impact weight stigma, and support environments that address these inequities.

5. Life-Enhancing Movement: Support physical activities that allow people of all sizes, abilities, and interests to engage in enjoyable movement, to the degree that they choose.

Source: The Association for Size Diversity and Health
HEALTH AT EVERY SIZE® (HAES)

• Myth: Everyone is healthy regardless of weight
• Facts:
  – Not everyone may be at a weight that is appropriate for them
  – Yet, efforts to lose weight may be futile, or even harmful
  – HAES supports individuals in making good health choices regardless of size

Source: Health at Every Size Curriculum: https://haescurriculum.com/
HAES

• Respects body shape & size diversity
• Minimizes weight stigma
  ➢ Considers other mediating disease risk factors
  ➢ Genetics, environment
• Weight neutral
  ➢ Emphasizes health-related behaviors
WEIGHT-NEUTRAL APPROACH: CAN IT WORK?

• RCT: Mensinger et al., 2016
  – Weight loss group: lifestyle intervention - changing diet & lifestyle skills, *goal of weight loss*
  – Weight-neutral program: intuitive eating, size acceptance, physical activity
  – Results: 2 years out:
    • Weight loss group – lower BMI and BW
    • Weight-neutral group – lower LDL, greater intuitive eating
    • Both – improved lifestyle behaviors: PA, fruit/veggie intake, psychological well-being, cardio-metabolic fitness
HAES & HEALTH OUTCOMES

• HAES (compared with weight loss group)\(^{(1-4)}\):
  
  – Improved:
    • Blood lipid levels
    • Blood pressure
    • Self-esteem
    • Body image
    • Depression
    • Quality of Life
  
  – Decreased risk for:
    • Eating disorders, disordered eating

IS IT ALL BAD...?

REMAINING QUESTIONS

Excess adiposity → Weight Stigma & discrimination → Adverse Health Outcomes

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ADDITIONAL QUESTIONS

• More research on weight-neutral interventions

• Personalized nutrition
  – Increase adherence?
  – Metabolic and genetic predisposition

• Screen for high-risk individuals
  – SDE, SCOFF, EDS-PC
  – Compare scores at baseline, during, post-intervention?
WHAT CAN WE DO?

• Certain approaches better for specific comorbidities
  – Mediterranean approaches: improve CV outcomes

• Focus on behaviors

• Discussion with patient
  – Dietary preferences
  – Lifestyle habits
  – Preferred movement patterns

• Close nonjudgmental follow-up
  – RDN
  – Exercise Specialists
  – Therapeutic support
AS PROVIDERS

• Recognize the conflict: Cognitive Dissonance
  – Our training: a person’s weight determines their health

• More to health than what you eat
  – Relationship with food
  – Mental health
  – Social determinants of Health

• A journey of the great unlearning?

WEIGHT BIAS?

- Anti-fat Attitudes Questionnaire (AFA)\(^1\)
- Anti-fat Attitudes Scale (AFAS)\(^2\)
- Anti-fat Attitudes Test (AFAT)\(^3\)
- Attitudes toward Obese Persons Scale (ATOP)\(^4\)
- Beliefs about Obese Persons Scale (BAOP)\(^5\)
- Fat Phobia Scale – short form\(^6\)
- Universal Measure of Bias-Fat Scale (UMB-FAT)\(^7\)
- Weight Bias Internalization Scale (WBIS)\(^8\)
- Weight Bias Internalization Scale – Modified (WBIS-M)\(^9\)
- Stigmatizing Situations Inventory (SSI)\(^10\)
- Stigmatizing Situations Inventory- Brief (SSI Brief)\(^11\)
- Harvard University’s Weight Implicit Association Test/IAT\(^12\)

RESOURCES

- Health at Every Size: https://haescommunity.com/
- Association for Size Diversity and Health: https://asdah.org/
- The Non-Diet Approach Guidebook for Dietitians: A How-To Guide for Applying the Non-Diet Approach to Individual Dietetic Counselling
- National Association to Advance Fat Acceptance (NAAFA): https://naafa.org/
- Society for Nutrition Education and Behavior: https://www.sneb.org/
- Council on Size and Weight Discrimination: http://cswd.org/
"Every time I go on a diet, I lose my mind. Unfortunately, it doesn’t weigh very much."

Thank you

Image Source: http://www.glasbergen.com
METABOLIC EFFICIENCY (ME)

• Initially triggered ↓ liver glycogen, decreased body water weight
  – Result of significant decline in insulin levels
  – Related to resting energy expenditure

• As weight loss continues, ME increases in relation to fat loss
  – Decline in leptin, T3, SNS
  – Related to non-resting energy expenditure

• Other factors likely play a role
  – Thermoregulation
  – Decrease spontaneous physical activity
Muller et al, 2016