Obesity Unmasked: Challenging Stigmas, Building Solutions

Overview of Current Treatment Landscape

Chika V. Anekwe, MD, MPH

Obesity Definitions

CDC
Centers for Disease Control and Prevention

body mass index (BMI) ≥ 30

BMI = weight (kg)/ height (m^2)

World Health Organization

abnormal or excessive fat accumulation that presents a risk to health

AMA

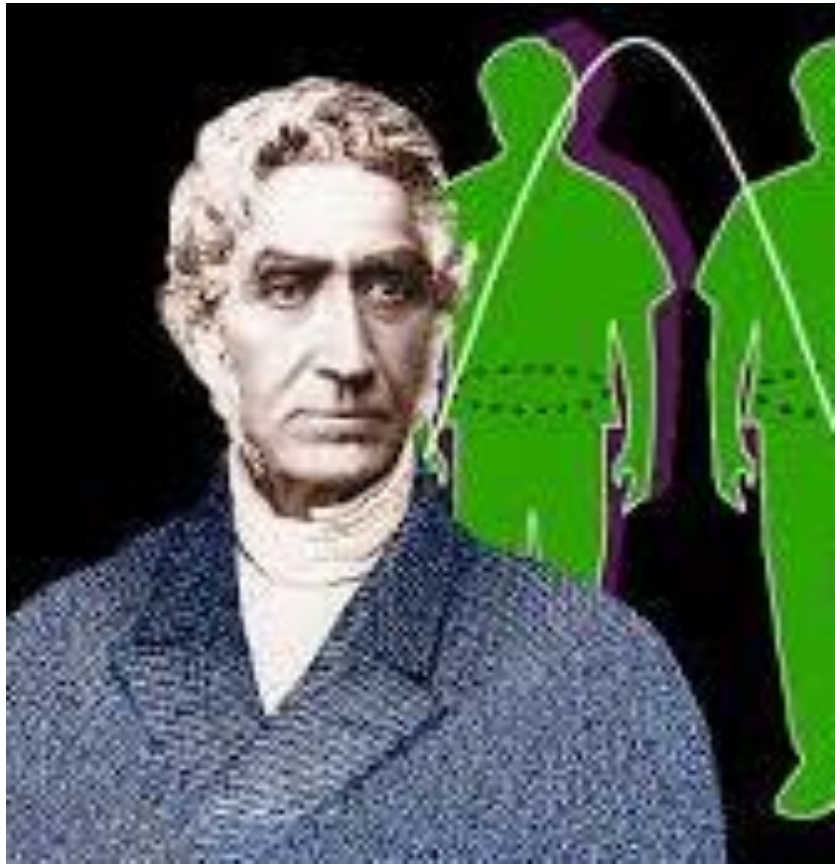
Use of BMI alone is an imperfect clinical measure

The history of BMI as a metric

- 1832:
  - BMI formula was produced to give a quick and easy way to measure the degree of obesity of the **general population** to assist the government in allocating resources
  - based solely on the size and measurements of French and Scottish participants

- Early 20th century:
  - scales became available for home use and insurance companies began to associate excessive weight with decreased life expectancy

- Mid-late 1900s:
  - Metropolitan Life Insurance Company developed BMI tables for “Ideal Weight”, “Desirable Weight” and finally "height-to-weight"
  - used by physicians to assess “ideal weight” in their patients



What BMI misses:

- Body fat %
- Body composition
- Weight-related health conditions
- Impact of weight on quality of life:
  - Mobility
  - Energy
  - Pain
  - Psychosocial wellness
  - Mental health
  - Self esteem

BMI is often inaccurate in determining individual health

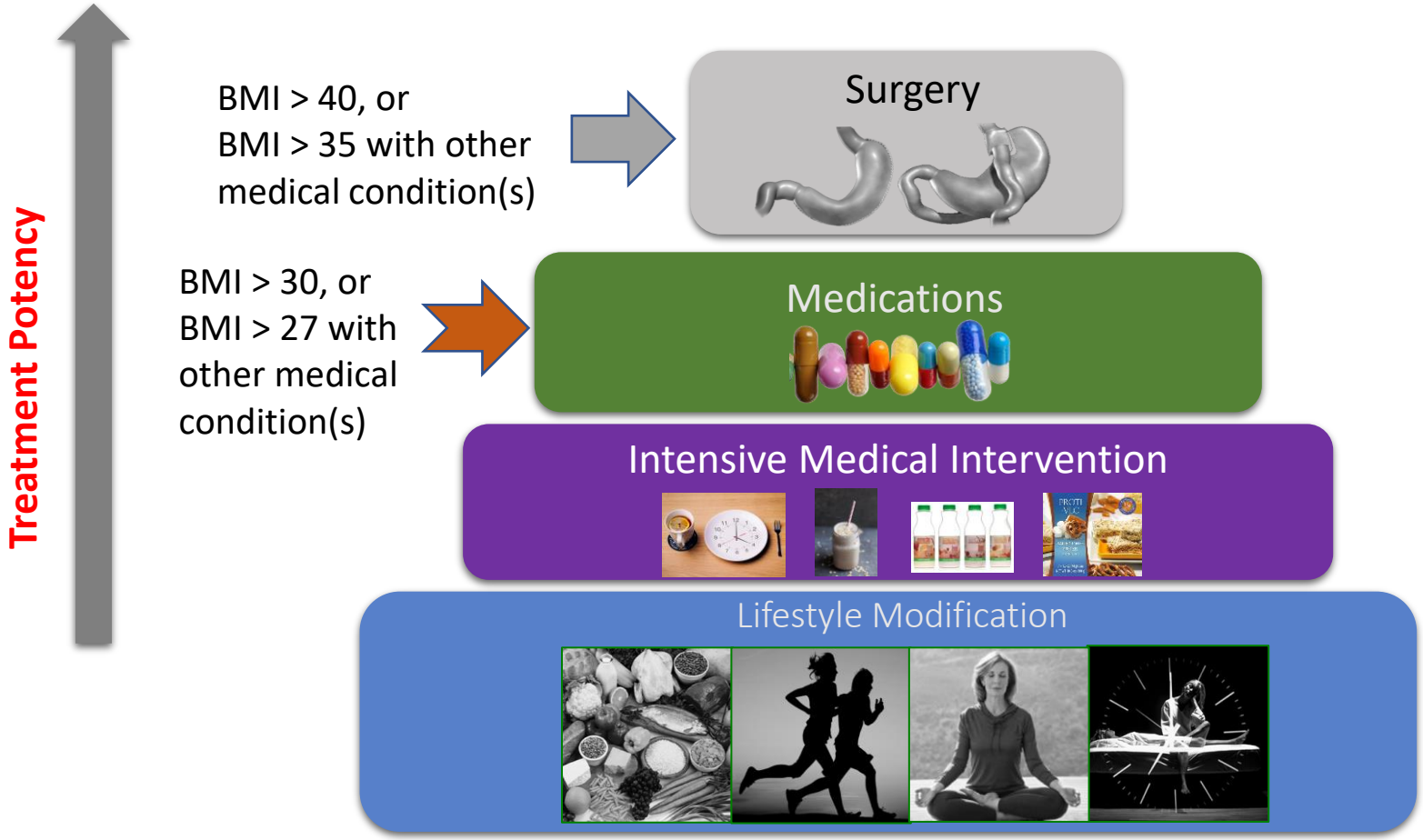
- **underestimates** health risks for Asian populations
- **overestimates** obesity (health risk) in people of African ancestry

Why Is Obesity a Disease?

Two primary pathways that regulate weight

Adapted from: Dr. Fatima Cody Stanford, MD, MPH, MBA, MPA; Oprah Daily interview

Spectrum of Obesity Treatment Options



Non-prescription Treatments

WEIGHT LOSS PROGRAMS

(FAD) DIETS:
IF, KETO, GOLO

PHYSICAL ACTIVITY

Behavioral Programs

- Noom
- WW (aka Weight Watchers)
- Optavia
- Eat Right Now
- Employer-based programs

Prescription medications

Anti-obesity medications (AOMs)

FDA approved

Stimulants:
- Phentermine
- Phendimetrazine
- Diethylpropion
- Benzphetamine

Orlistat
Setmelanotide (Imcrivee)
Phentermine/topiramate ER (Qsymia)
Naltrexone/bupropion ER (Contrave)
Liraglutide 3.0mg (Saxenda)
Semaglutide 2.4mg (Wegovy)
Tirzepatide (Zepbound)

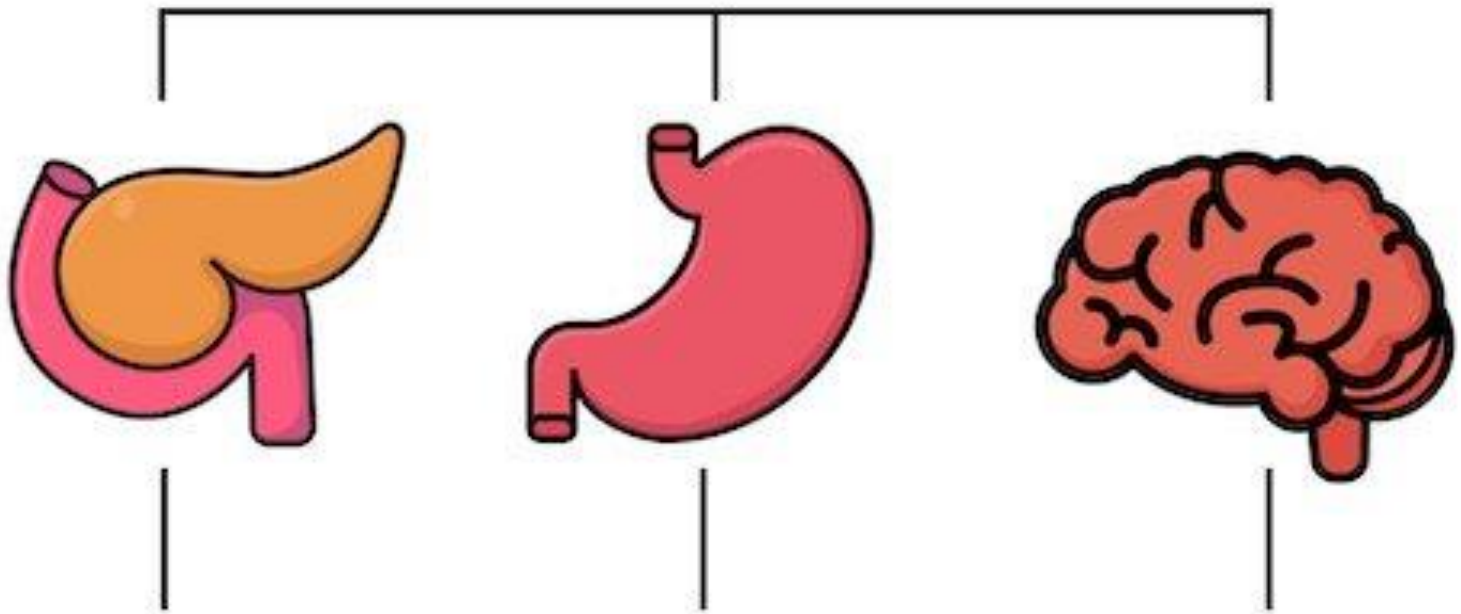
Off-label

Metformin
Topiramate
Zonisamide
Bupropion
Naltrexone
GLP1-RAs:
- Liraglutide 1.8mg
- **Semaglutide 2.0mg (Ozempic)**
- Exenatide
- Dulaglutide

In the pipeline

GLP1-GIP-glucagon triple agonist:
- Retatrutide

GLP-1



↑↑ Insulin
↓↓ Glucogon

↓↓ Gastric emptying
↓↓ GI motility

↓↓ Food intake
↓↓ Water intake

New Antiobesity Drugs Help People Shed Dozens of Pounds, but They Must Be Taken for a Lifetime

Injectable weight-loss medicines reduce appetite but raise questions of long-term safety and affordability

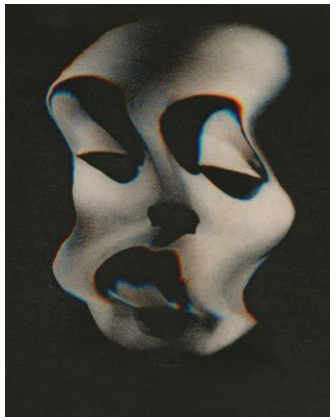
Ozempic Can Cause Major Weight Loss. What Happens if You Stop Taking It?

THOSE WEIGHT LOSS DRUGS MAY DO A NUMBER ON YOUR FACE

BY THE NEW YORK TIMES | JANUARY 24, 2023

What New Weight Loss Drugs Teach Us About Fat and Free Will

Jan. 31, 2023



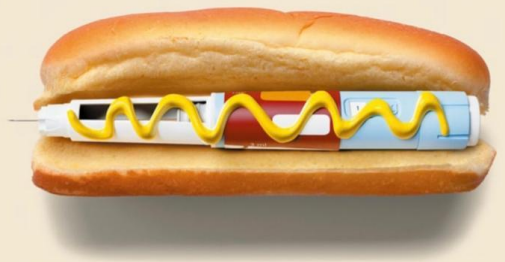
The Economist

Do house prices signal recession?
DeSantis's elusive foreign policy
Venture capital: back to basics
Rainforests need laws, not saws

MARCH 4TH–10TH 2023

EAT INJECT REPEAT

Curing obesity, worldwide



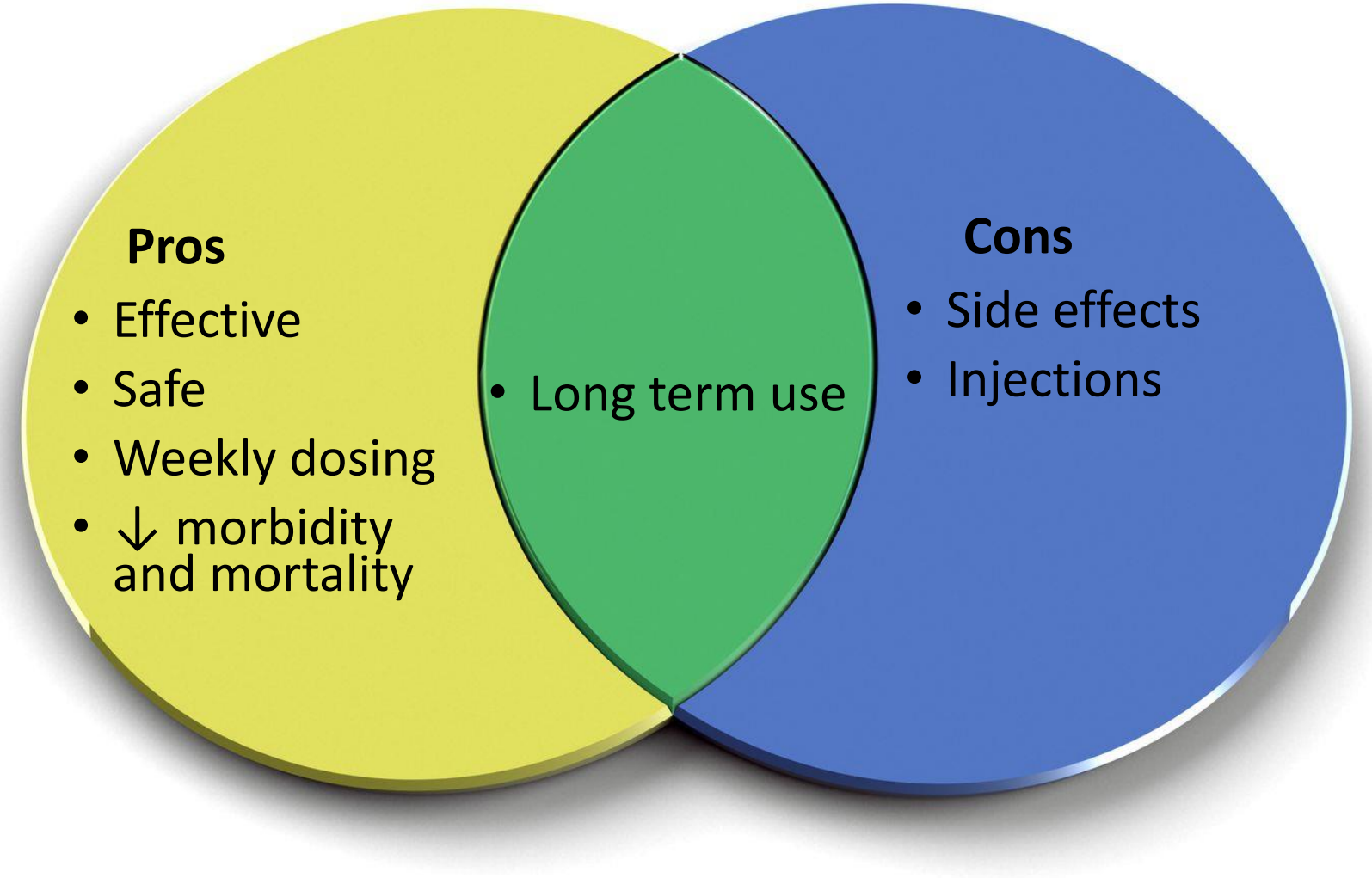
What Is Ozempic and Why Is It Getting So Much Attention?

The Age of Semaglutide

≠

cure

Pros/ Cons of GLP1 and GLP1/GIP Medications

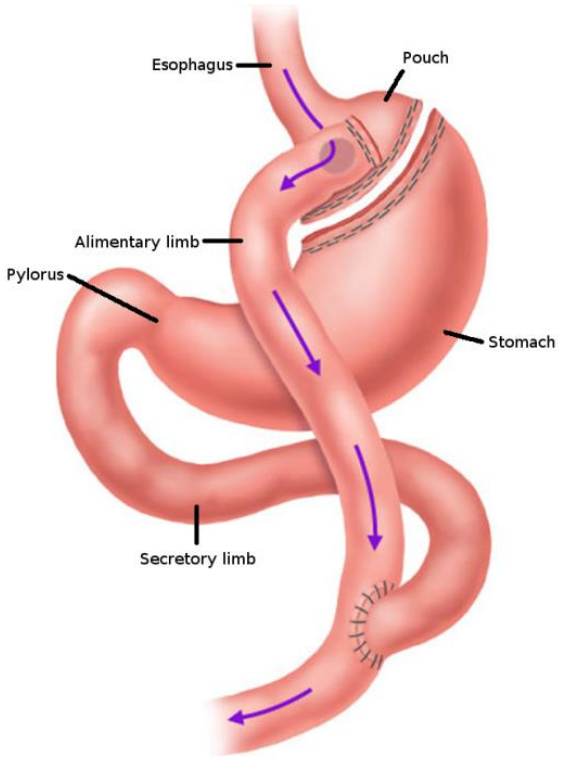


Potential Side effects

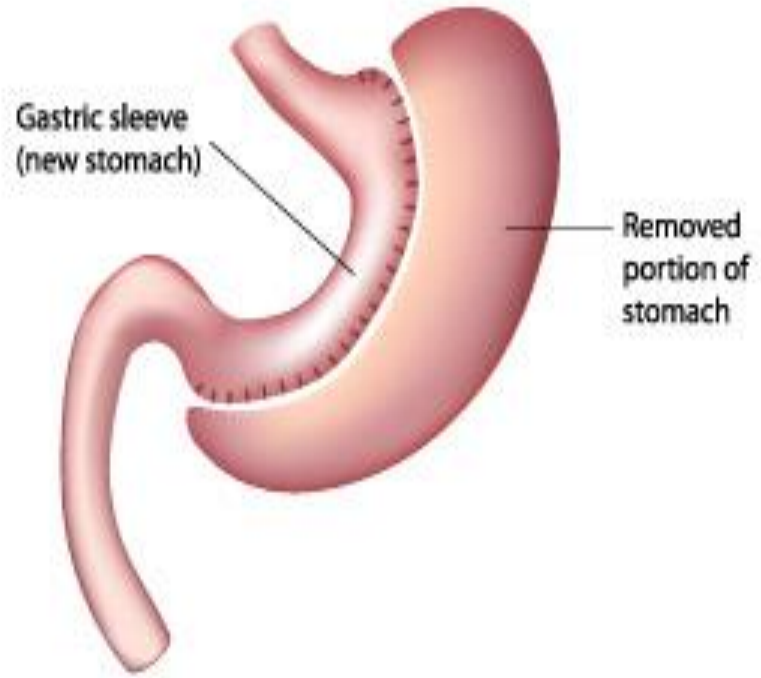
- Most common: gastrointestinal
  - Nausea
  - Vomiting
  - Constipation/diarrhea
- More concerning:
  - Intestinal obstruction
  - Aspiration (if undergoing anesthesia)
  - Black box warnings: medullary thyroid cancer, pancreatitis
  - Effects on mood disorder - under investigation

Metabolic and Bariatric Surgery: What Role Does it Play?

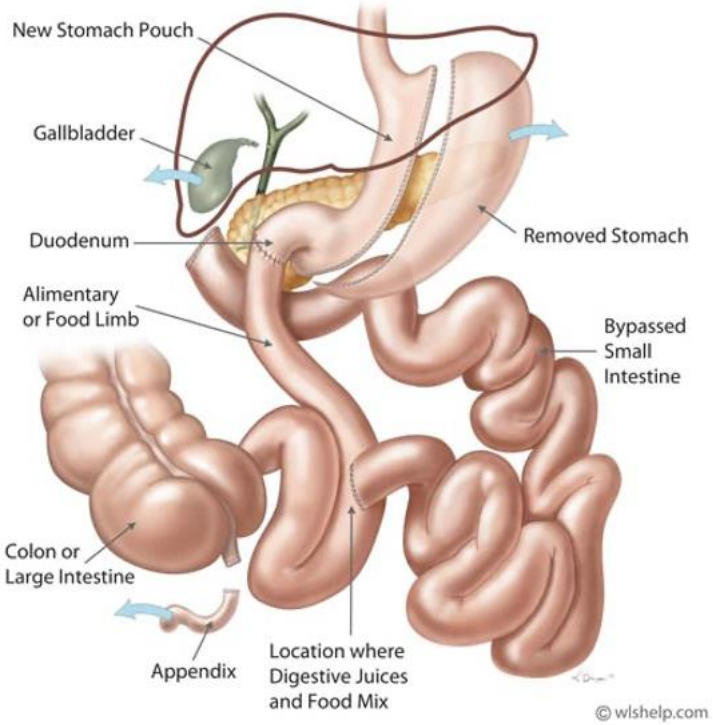
Roux-en-Y
Gastric Bypass



Sleeve Gastrectomy
("Gastric Sleeve")



Duodenal Switch



A Patient's Journey: Donna

- Laparoscopic Roux-en-Y gastric bypass on 10/27/2008
- Pre op wt 319 pounds
- Nadir wt 165 lbs
- Currently on AOM for ongoing weight maintenance

Obesity: A Public Health Challenge

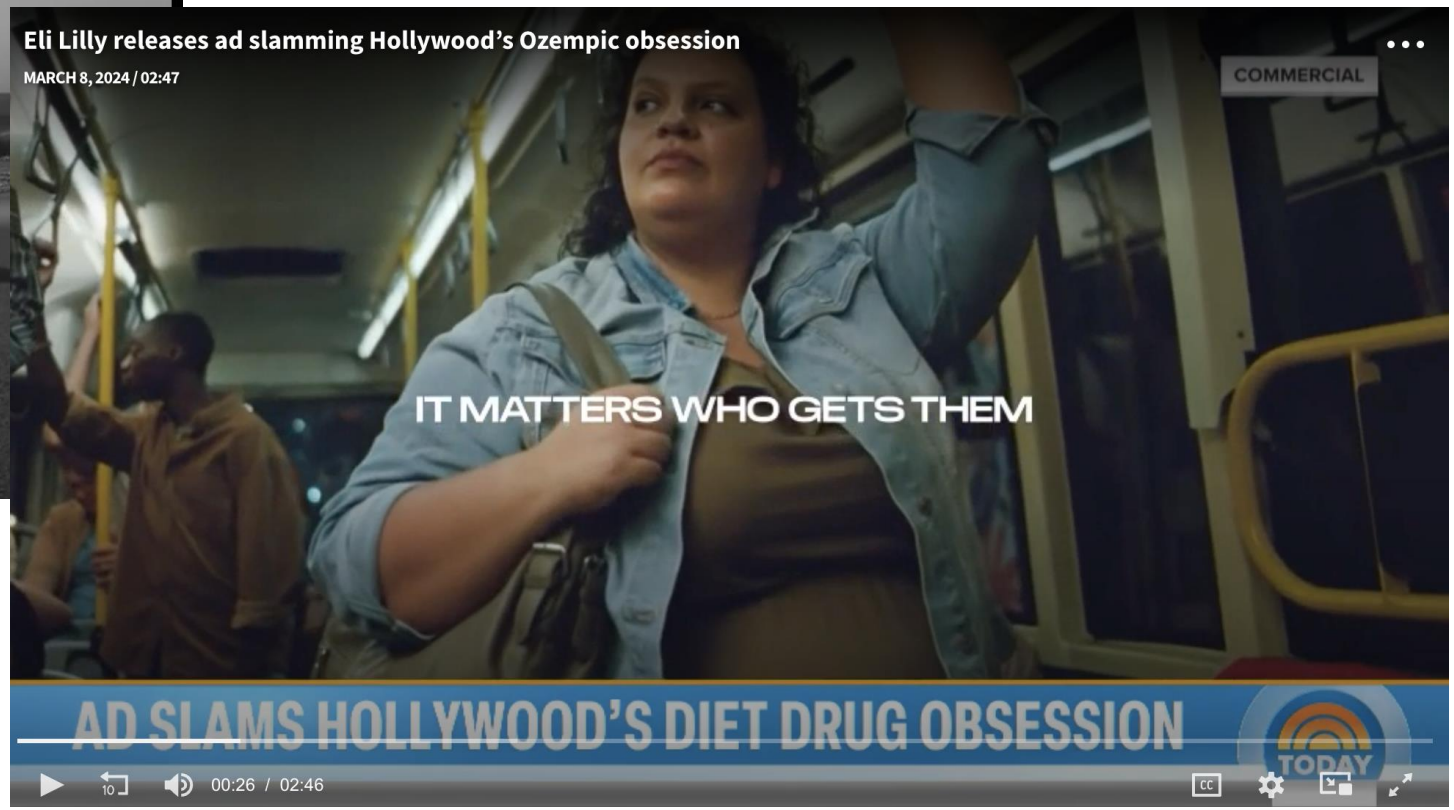
Financing of obesity treatments – who pays?

Health care vs. Sick care

Drug shortages – who gets the medication?

Preventive medicine/Public health outlook


VO: Shame.


Eli Lilly releases ad slamming Hollywood's Ozempic obsession
MARCH 8, 2024 / 02:47
COMMERCIAL
IT MATTERS WHO GETS THEM
AD SLAMS HOLLYWOOD'S DIET DRUG OBSESSION
TODAY
00:26 / 02:46

MASS GENERAL HOSPITAL'S MEDICALLY INTENSIVE NUTRITION THERAPY PROGRAM (**MINT**) **RESEARCH STUDY**

ELIGIBILITY

- AGES 18+
- BODY MASS INDEX (BMI) > 27 KG/M
- DIABETES OR PREDIABETES
- EARNING A LOW INCOME (LESS THAN 400% FEDERAL POVERTY LEVEL)

STUDY INVOLVEMENT

ENROLLMENT IN THE MGH WEIGHT CENTER'S 12 WEEK MINT PROGRAM

- SURVEYS CONDUCTED VIRTUALLY
- LOW-CALORIE DIET WITH MEAL REPLACEMENTS
- BLOOD WORK, HEIGHT AND WEIGHT

TO LEARN MORE, CONTACT US:

ENROLMENT FEE AND COST OF MEAL REPLACEMENTS ARE WAIVED - A VALUE OF $1630

$10 STIPEND FOR OPTIONAL BLOOD DRAW

617-724-0248

Resources to learn more and get involved:

- CME Courses:
  - PeerView: Management of Obesity as a Chronic Disease
    - (1.0 CME/NCPD/AAPA)
  - Treating Obesity: HMS Blackburn Course
  - The Boston Course in Obesity Medicine

PeerView

Blackburn

Boston Course

Obesity Medicine Association

THE OBESITY SOCIETY

NEOS New England Obesity Society

email: newenglandobesitysociety@gmail.com

Impact of Weight Stigma

Susan Himes, PhD
& Colleen Johnson, MS RDN LDN CDCES

Regis Talk
13 March 2024

"Weight bias is negative attitudes, beliefs, judgments, stereotypes, and discriminatory acts aimed at individuals simply because of their weight."

- Obesity Action Coalition (1)

Weight Bias/Stigma

Weight bias often includes:

- Weight prejudice
- Stereotypes
- Discrimination

Often shows up as "subtle belief that stigma and shame will motivate people to lose weight"

Inability to lose weight is believed to be the result of "inadequate self-discipline or insufficient willpower" (2)

Who is Affected

- People of any size can experience weight bias or stigma or its negative effects
- Stigma is more common among people with diabetes
- People with type 2 diabetes experience stigma at a higher rate (53% compared to 19-41% in the general population) (3)

Why This is Important

- People may avoid seeking treatment for an illness or injury due to concern for weight stigma
- Body weight can derail recovery for those with, or recovering from, an eating disorder
- Perceiving eating patterns as a lack of willpower or self- control rather than the result of an eating disorder (2)

Why This is Important

- Stigma can lead to a difficult relationship with food including more frequent stress and binge eating
- Binge Eating Disorder (BED) more prevalent in people with Diabetes (20% of PWD vs 2-3.5% of general population)
- Increased use of food as coping strategy, greater body dissatisfaction (4-5)

Weight-Inclusive Care

Healthcare providers can:

- Assess their own implicit bias
- Ask for permission before asking about weight or before weighing
- Use language that supports rather than blames (mindfulness of non-verbal feedback)
- Focus on behavior change instead of body size (2)

Preferred Language vs Stigmatizing Language

Use: physical activity, movement, eating habits

Use with permission: weight, body mass index (BMI)

Avoid: Obese, fat, diet, exercise, chubby

To consider for clinic: private space for measuring body weight, a scale that accommodates larger bodies, and the option for patients to have "blind weight" taken (2)

Person-first Language

The rules of APA Style calls for language in all publications to **"put people first, not their disability"** and to **"not label people by their disability."**

Feldman and colleagues[1] found that people-first language affects attitudes and behavioral intentions toward persons with disabilities.

Referring to individuals as "obese" has been shown to influence how individuals feel about their condition and how likely they are to seek medical care.

19%
of people report that they would avoid future medical appointments if their doctor stigmatized them about their weight.[2]

21%
of people report that they would seek a new doctor if they felt a doctor has stigmatized them about weight.[2]

Example of using people-first language:

"The woman was affected by obesity." instead of **"The woman was obese."**

Source: Obesity Action Coalition (obesityaction.org) (1)

Role of the Registered Dietitian Nutritionist (RDN)

- Dietitians may investigate:
  - Cravings
  - Emotional eating
  - Other disordered eating thoughts and behaviors

- Providers encouraged to gently refer to mental health professionals who are experienced in eating disorders (2)

Resources for Providers

- https://www.diabeteseducator.org/practice/practice-tools/app-resources/ diabetes-language-paper
- Project Implicit's free bias tool https://www.projectimplicit.net/
- https://asdah.org/health-at-every-size-haes-approach • https://www.weightinclusivenutrition.com
- Inclusive Diabetes Care Certificate, https://inclusivediabetescare.com
- https://stopweightbias.com
- Person-Centered Care for Individuals who have Higher Weight: A Certificate Program https://www.diabeteseducator.org/education/ adces-certificates

Social Experiences

- Overweight children have been ascribed negative attributes
  - more likely to be rejected by peers (6, 7)
- Teens report name calling and teasing (8)
  - teen girls in a study were less likely to date than peers (9)
- Adults report more weight related mistreatment (exclusion, name calling) at the highest part of the BMI spectrum (10)
- Women and men who are overweight have been found to be less likely to be married than peers (11)

Stigma in Healthcare

- Female patients with obesity report often delaying or canceling appointments with medical professionals (12).
- Even among professionals in health care treating obesity (dietitians, nurses, doctors, medical students) research has indicated implicit and explicit bias.
- Stereotypes include associating people with obesity as stupid, worthless, and lazy (13).

Stigma and Mental Health

Implicit vs Explicit Bias

- Weight bias has been divided:
  - “internalized” bias
  - “explicit/externalized” bias
- Internalized bias includes negative attributions made about the self
  - (ie “I am not competent”)
- Explicit bias is negative attributions made to others
  - (ie “they are not competent.”) (14,15)

Contributes to higher rates of anxiety and depression

Binge Eating Disorder (BED)

Eating a large amount of food in a brief period (2hrs)

A perceived lack of control over eating

Associated with 3 or more of the following criteria:

- Eating rapidly
- Eating until uncomfortably full
- Eating when not hungry
- Eating alone
- Feeling disgusted, depressed, guilty

Old criteria: occurs at least 2/week over past 6 months

New criteria DSM 5: 1/week for 3 months

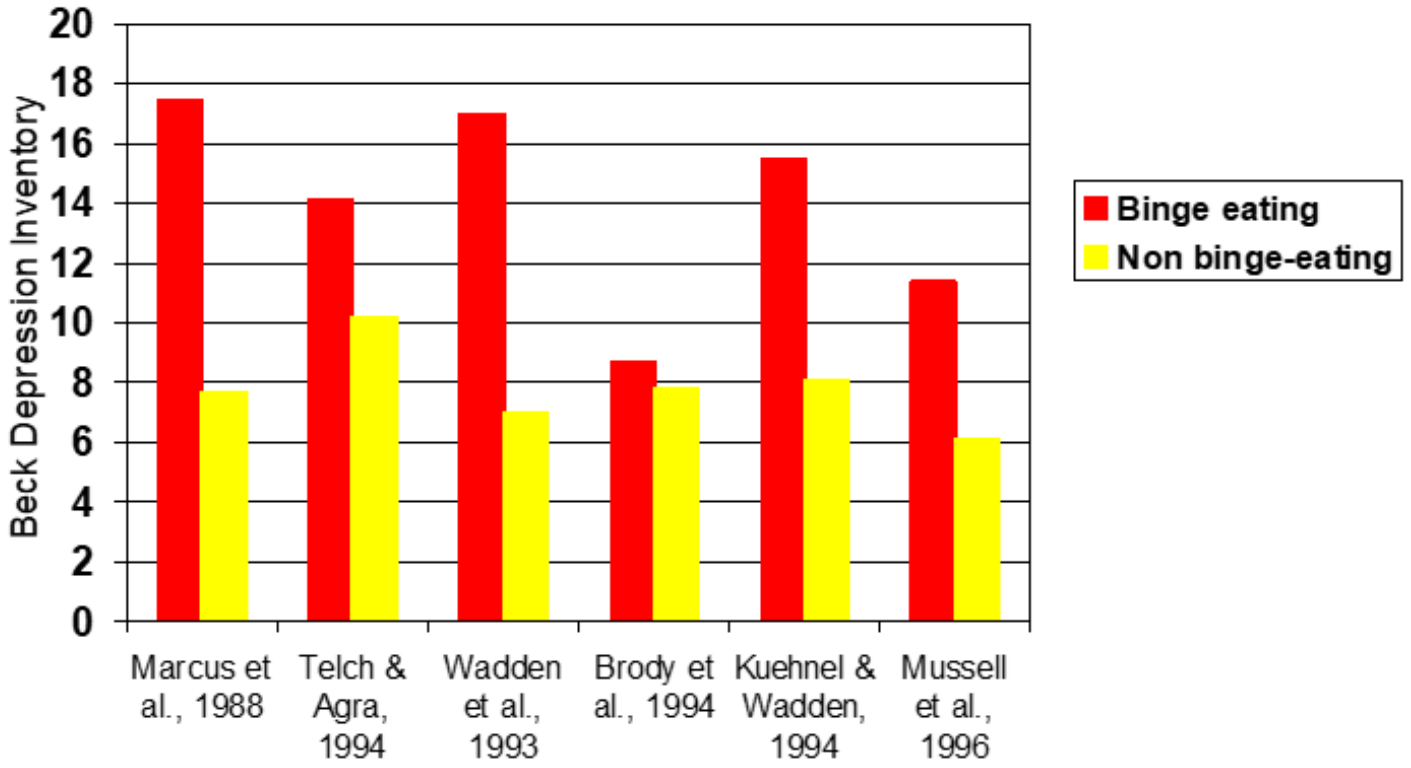
Has been classified as EDNOS; own dx in DSM-V

Binge Eating Disorder (BED)

- Binge Eating Rates
  - Binge eating is present in about 1.5% of the general population (1a)
  - Binge eating occurs within 9-29% of the weight loss seeking population
  - 1-2 % meet criteria for BED (16-18)
  - About 3-16% of patients seeking bariatric surgery meet criteria for BED.

  - Avg age of onset: 25 years old
  - Any binge eating: 4.9% women, 4% men

Binge Eating and Depression

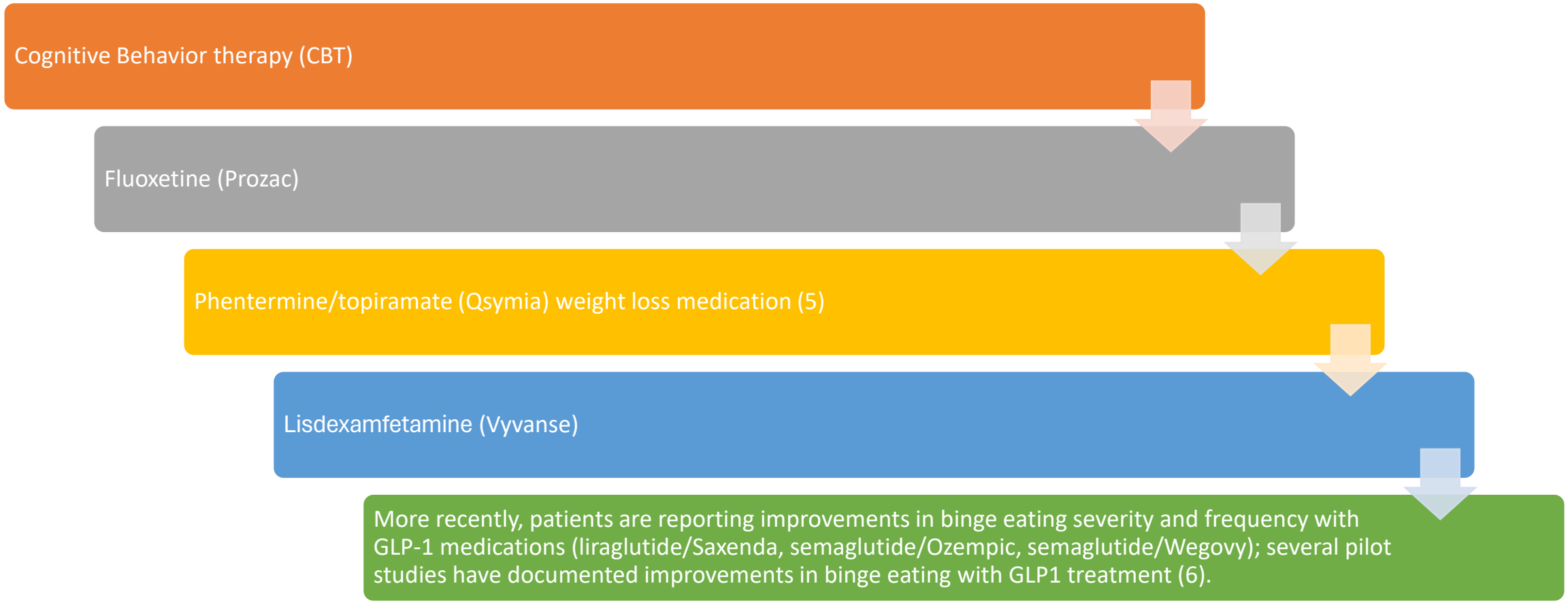


Wadden et al., 2002

Why Study Binge Eating?

- Related to decreased weight loss/obesity
- Related to frustration and attrition from weight loss programs
- Related to problems post-bariatric surgery with dumping syndrome
- Binge eating can be associated with weight regain after bariatric surgery

Treatment of Binge Eating



Treatment of Binge Eating

USE OF DIETARY PATHWAY

BEHAVIORAL WEIGHT LOSS APPROACH

PROMOTE WEIGHT LOSS WITH HEALTHY EATING AND EXERCISE

HAVE PATIENTS EAT EVERY 4 HOURS

OBTAIN NUTRIENTS AND PROTEIN EARLY IN DAY

SELF-MONITOR OR TRACK FOOD/EXERCISE

MAKE GRADUAL CHANGES

36% REMISSION RATE FROM BINGES

Treatment for Mood Pathway

CBT + DBT

- Goal: CBT approach-target negative thoughts related to disordered eating
- Antidepressants
- Behavioral Activation (positive activities)
- 79% remission from binges with CBT
- 89% remission from binges with DBT (mindfulness activities)

IPT

- Goal: IPT approach-target negative conflicts in relationships related to disordered eating
- 73% remission from binges (18)

Addiction Model

Treatment of Binge Eating

- Suggests binge behavior is reward, difficult to regulate
- Have patients identify cognitive and situational triggers when recording (availability of food, time of day, being home alone, co-occuring activity)
- Challenge cognitions and propose alternative behaviors/situations that trigger binge
  - Ex. “It’s me time”, “I’m hungry”
  - Ex. Go to dog park at 3pm when likely to binge at home alone

Summary

Binge eating disorder, if clinically severe, can potentially lead to poor weight outcomes and may need treatment prior to weight loss

Binge eating changes in the DSM 5 include change in frequency (1 x week) for shorter duration (3 months)

Both CBT and DBT are effective interventions, may wish to tailor to needs and patient response

References

1. Obesity Action Coalition. (2024, February 22). Home page - Obesity Action Coalition. https://www.obesityaction.org/
2. Equitable Healthcare Weight Stigma Cutting Edge Nutrition and Diabetes Care Diabetes Dietetic Practice Group & ON THE CUTTING EDGE Diabetes Dietetic Practice Group. (2023). Providing Inclusive Diabetes Care in 2023 and Beyond. Diabetes Dietetic Practice Group/Academy of Nutrition and Dietetics, 1(1), 35–39.
3. Puhl RM, Himmelstein MS, Speight J. Weight Stigma and Diabetes Stigma: Implications for Weight-Related Health Behaviors in Adults With Type 2 Diabetes. Clin Diabetes. 2022;40(1):51-61. doi:10.2337/cd20-0071
4. Puhl R, Suh Y. Health Consequences of Weight Stigma: Implications for Obesity Prevention and Treatment. Curr Obes Rep. 2015;4(2):182-190. doi:10.1007/s13679-015-0153-z
5. Harris SR, Carrillo M, Fujioka K. BingeEating Disorder and Type 2 Diabetes: A Review. Endocr Pract. 2021;27(2):158-164. doi:10.1016/j.eprac.2020.10.005

References

6. Straffieri, JR (1967). A study of social stereotype in children. Journal of Perspectives in Social Psychology, 7, 101-107.

7. Strauss, CC, Smith, K, Frame, C, & Forehand, R. (1984). Personal and interpersonal characteristics associated with childhood obesity. Journal of Pediatric Psychology, 10, 337-343.

8. Neumark-Sztainer, D, Story, M, Faibisch, L. (1998). Perceived stigmatization among overweight African American and Caucasian adolescent girls. Journal of Adolescent Health, 23 (5) 264-270.

9. Pearce, MJ, Boergers, J, & Prinstein, MJ (2002). Adolescent obesity, overt and relational peer victimization, and romantic relationships. Obesity Research, 10 (5), 386-393.

10. Falkner, N, French, S, Jeffery, R, & Neumark-Sztainer, D (1999). Mistreatment due to weight prevalence and sources of perceived mistreatment in women and men. Obesity Research, 7 (6), 572-576.

References

11. Gortmaker, SL, Must, A, Perrin, JM, Sobol, A, & Dietz, WH (1993). Social and economic consequences of overweight in adolescence and young adulthood. New England Journal of Medicine, 329 (14), 1008-1012.

12. Fontaine, KR, Faith, MS, Allison, DB & Cheskin, LJ (1998). Body weight and health care among women in the general population. Archives of Family Medicine, 7, 381-384.

13. Schwartz, MB, Chambliss, HO, Brownell, KD, Blair, SN, Billington C. Weight bias among health professionals specializing in obesity. (2003). Obesity Research, 11, (9), 1033-1039.

14. Durso LE & Latner, JD Understanding self-directed stigma: Development of the weight bias Internalization scale. Obesity. 2008;16:s80–s86.

15. Wang SS, Brownell KD, Wadden TA. The influence of the stigma of obesity on overweight individuals. International Journal of Obesity. 2004;28:1333–1337.

References

16. Ceilo, Wilfley, Crow, Mitchell, & Walsh (2004). A Comparison of the Binge Eating Scale, Questionnaire for Eating and Weight Patterns-Revised, and Eating Disorder Examination Questionnaire with Instructions with the Eating Disorder Examination in the Assessment of Binge Eating Disorder and its symptoms, International Journal of Eating Disorders, 36: 434-444.

17. Hudson JI, Hiripi E, Pope HG, Kessler RC. The prevalence and correlates of eating disorders in the National Comorbidity Survey Replication. Biol Psychiatry. 2007;61:348–358.

18. Iacovino JM, Gredysa DM, Altman M, Wilfley DE. Psychological treatments for binge eating disorder. Curr Psychiatry Rep. 2012 Aug;14(4):432-46Safer, Telch, & Chen. Dialectical Behavior Therapy for Binge Eating and Bulimia. (2009).

19. Sarwer, Foster, & Wadden, Treatment of Obesity I: Adult Obesity (2004). Handbook of Eating Disorders and Obesity, Wiley & Sons, Hoboken, NJ.

20. Stice, Telch, Rizvi (2000.) Development and validation of the Eating Disorder Diagnostic Scale: A brief self-report measure of Anorexia, Bulimia, and Binge Eating Disorder. Psychological Assessment, 12, 2: 123-131.

Thank You!