Mental Health Considerations in the Treatment of Obesity

David B. Sarwer, Ph.D.
Associate Dean for Research
Director, Center for Obesity Research and Education
College of Public Health
Temple University

Objectives

• Understand the psychosocial burden of obesity
• Appreciate the role of psychosocial factors in determining appropriateness for weight loss treatment
• Understand the psychosocial changes that occur with weight loss
The Psychosocial Burden of Obesity

- Mood
- Anxiety
- Quality of Life
- Self-Esteem
- Body Image
- Sexuality
- Disordered Eating
- Substance Use/Abuse
- Physical functioning
- Sleep disturbance
- Cognitive impairment
- Bias and Stigmatization

Mood and Obesity

- Increased depressive symptoms/mood disorders among persons who seek weight loss treatment
- Depressive symptoms often correlated with BMI
- Concerns about social isolation/social support
- Concerns about suicidality
Quality of Life and Obesity

- Persons with obesity report greater impairments in health and weight-related quality of life compared to persons without obesity
- Persons with obesity also report higher levels of body image dissatisfaction
- BMI is correlated with quality of life, body image dissatisfaction, and sexual functioning
- Impairments in quality of life/body image dissatisfaction likely motivates pursuit of weight loss

Cognitive Impairment and Obesity

- A growing literature has demonstrated that persons with extreme obesity show deficits in some areas of cognitive functioning (Gunstad et al., 2014; Spitznagel et al., 2015)
- The mechanisms for these deficits (inflammation, sleep apnea, depression) are unknown
- Encouragingly, these deficits improve with the weight loss seen with bariatric surgery (e.g., Gunstad et al., 2015)
Obesity, Sexual Functioning, and Sex Hormones

- Individuals with obesity often report untoward changes in sexual functioning and decreased sexual satisfaction (Bond et al., 2009; Dallal et al., 2008; Kolotkin et al., 2006; Moore et al., 2013)

- More than half (51%) of women who presented for bariatric surgery reported sexual dysfunction, which was accompanied by significant psychosocial distress (Sarwer et al., 2013)

- Excess body weight also is associated with abnormal levels of female sex hormones (Bernasconi et al., 1996; Gosman et al., 2006; Leenen et al., 1994; Lukanova et al., 2004; Pasquali et al., 2007; Sarwer et al., 2013; Strain et al., 2006)

Bias and Stigmatization

- Persons with obesity (and extreme obesity in particular) experience bias and stigma in a wide range of social situations
- Degree of obesity impacts hiring decisions as well as salary determinations
- Weight-related stigma is also present in health care
- The experience of weight-related stigma is associated with maladaptive psychosocial and perhaps physical consequences (Obesity Action Coalition, 2016)
Clinical Research Versus Clinical Practice

- Persons with formal psychopathology or who report significant psychosocial distress are typically excluded from clinical research studies and randomized controlled trials of weight loss interventions.
- Most obesity medicine providers treat a wider range of patients in daily practice.
- Much of what we know about mental health issues and obesity treatment comes from the bariatric surgery literature.

Preoperative Psychosocial Status of Bariatric Surgery Patients

- Patients report lower quality of life and greater body image dissatisfaction (e.g., Fabricatore et al., Obesity Surgery 2005;15:304-309; Kolotkin et al., Obesity Surgery 2003;13:371-377; Sarwer et al., Surgery for Obesity and Related Diseases.)
- Less than 70% of surgery patients married at the time of surgery, approximately two thirds report problems with sexual behavior (e.g., Bond et al., Surgery for Obesity and Related Diseases 2009;5:698-704; Kolotkin et al., Surgery for Obesity and Related Diseases 2008;4:651-659; Sarwer et al., Surgery for Obesity and Related Diseases.)
- Patients experience weight-related prejudice and discrimination in social, educational, occupational, and healthcare settings (e.g., Friedman et al., Obesity 2008;16(S2):S69-S74; Sarwer et al., Obesity 2008;16(S2):S75-S79)
Psychiatric Status and History of Bariatric Surgery Candidates

- 21-56% of bariatric surgery patients suffer from an Axis I disorder when they present for surgery
- 37-73% have a history of a lifetime diagnosis
  - Mood disorders are the most common diagnoses, seen in 6-32% of patients
  - Anxiety disorders have been found in as many as 24% of patients
  - History of substance abuse found in up to 33%; 2% present with active substance abuse

(e.g. Rosenberg et al., 2006; Kalarchian et al., 2007; Mauri et al., 2008; Muhlhans et al., 2009; Jones-Comielle et al., 2011; Mitchell et al., 2012)

Psychiatric Treatment among Bariatric Surgery Candidates

- 16%-38.9% of bariatric surgery patients report current mental health treatment
- 50% of patients had a history of mental health treatment
- The most common form of treatment is psychiatric medications (often prescribed by primary care physicians)

(e.g., Friedman et al., 2007; Sarwer et al., 2004, Larsen et al., 2003; Clark et al., 2003, Lang et al., 2002, Glinski et al., 2001)
For these reasons, psychosocial status and functioning should be assessed by treatment providers (regardless of discipline) prior to weight loss treatment (and regardless of type of treatment) (Kushner & Sarwer, 2012; Sarwer & Dilks, 2015).

Health Belief Model

- This model states that whether a person practices a particular health behavior can be understood by knowing two factors: whether the person perceives a personal health threat and whether the person believes that a particular health practice will be effective in reducing that threat.
- The perception of a personal health threat is itself influenced by at least three factors: general health values, which include concern about health; specific beliefs about personal vulnerability to a particular disorder; and beliefs about the consequences of the disorder, such as whether they are serious.
Many individuals do not recognize the health threat of the comorbidities associated with obesity.

Others have a history of failed weight loss attempts and may be reluctant to try new approaches.

Some struggle to change eating and activity behaviors in the face of the “toxic environment.”

Treatment providers also may struggle to see the value of specific treatment approaches (pharmacotherapy, bariatric surgery).

Bariatric Surgery Candidates

• A psychosocial-behavioral evaluation, which assesses environmental, familial, and behavioral factors, should be considered for all patients before bariatric surgery.

• Any patient considered for bariatric surgery with a known or suspected psychiatric illness should undergo a formal mental health evaluation before performance of the surgical procedure.

• All patients should undergo evaluation of their ability to incorporate nutritional and behavioral changes before and after bariatric surgery.

Goals of the Psychosocial Evaluation

• To assess psychiatric status and history as potential contraindications to weight loss treatment (e.g. psychosis, severe major depression, substance abuse).

• To identify negative environmental influences that may have contributed to the development of obesity.

• To evaluate maladaptive psychosocial factors and behaviors that may be associated with a poor treatment outcome.
Elements of the Psychological Evaluation

- Medical record review
- Clinical interview to assess psychosocial and behavioral history
- Additional psychometric measures/symptom inventories
- Personality testing (?)
- Intelligence testing (?)

Hypothesized Psychosocial/Behavioral Predictors of Poor Postoperative Outcomes

- Presence of any psychiatric diagnosis
- History of substance abuse
- History of sexual abuse
- History of disordered eating
The Relationship Between Preoperative Psychosocial Status and Postoperative Weight Loss

- Psychosocial distress related to extreme obesity may motivate desire for surgery and be a positive predictor of outcome.
- Distressed based on a true psychiatric illness may be an impediment to successful weight loss treatment.
- A growing number of studies have found that patients with pre-existing psychopathology experience smaller weight losses postoperatively (i.e., Devlin et al., 2016; deZwaan et al., 2011; Kalarchian, 2013).

Does a History of Substance Abuse Impact Postoperative Outcomes?

- Two studies have demonstrated larger weight losses among persons with a history of substance abuse as compared to those without a history of substance abuse (Clark et al., 2003; Heinberg & Ashton, 2010)
- Persons who are successful at controlling their addiction history may be using the same behavioral self-management skills to promote success after bariatric surgery.
Physical Abuse, Sexual Abuse, and Family Dysfunction

- 10-30% of bariatric surgery patients report a history of physical and/or sexual abuse
- Up to 50% report a history of family dysfunction (substance abuse, incarceration, neglect)

(e.g., Friedman et al., 2007; Sarwer et al., 2004; Larsen et al., 2003; Clark et al., 2003; Lang et al., 2002)

Does a History of Sexual Abuse Impact Postoperative Outcomes?

- 10-30% of bariatric surgery patients report a history of physical and/or sexual abuse
- Up to 50% report a history of family dysfunction (substance abuse, incarceration, neglect)
- The relationship of these experiences to postoperative outcomes (weight loss and psychosocial adjustment) is unclear

(e.g., Friedman et al., 2007; Sarwer et al., 2004; Larsen et al., 2003; Clark et al., 2003; Lang et al., 2002)
Disordered Eating and Obesity

- Overeating/Disinhibition contributes to obesity
- Higher rates of Binge Eating Disorder and Night Eating Syndrome among persons who seek weight loss treatment
- Few patients with Bulimia Nervosa
- OBESITY IS NOT AN EATING DISORDER

Binge Eating Disorder

- Recurrent binge eating, characterized by both:
  - Eating, in a discrete amount of time (e.g., within a 2-hour time period), an amount of food that is definitely larger than most people would eat during a similar period of time in similar circumstances
  - A sense of lack of control during the episodes, for example, a feeling that one can’t stop eating or control what or how much one is eating

- Marked distress about binge eating (3/5):
  - Eating more rapidly than usual
  - Eating until uncomfortably full
  - Eating in absence of hunger
  - Eating alone because embarrassed about eating
  - Feeling disgusted, depressed, or guilty afterwards
Examples of “Objectively Large”

- The consumption of two full meals (each ≥ 2 courses)
- The consumption of three main courses
- Examples:
  - 4 (4”) bagels
  - 6 cups cereal
  - 4 (3”) brownies or slices of cake or pie
  - 3 dinner plates of Chinese food
  - 4 hot dogs with buns
  - > 1 pint of ice cream
  - 6 slices of pizza
  - 3 cups trail mix
  - 3 fast food sandwiches

Binge Eating Disorder & Bariatric Surgery

- Early studies suggest that up to 50% of surgery candidates had binge eating disorder (BED)
  (Adami et al., 1995; Hsu et al., 1997; Kalarchian et al., 1998; Kalarchian et al., 2000; Powers et al., 1999)

- More recent studies suggest that the disorder may be far less common, perhaps affecting 5-20% of patients; less than 5% have NES.
  (Allison et al., 2006; de Zwaan et al., 2003; Hsu et al., 2002; Mitchell et al., 2014)

- The presence of preoperative BED has been associated with smaller postoperative weight losses or weight regain within the first 2 postoperative years….in many, but not all, studies.
  (Chao et al., 2016; Hsu et al., 1996; Kalarchian et al., 2002; Wadden et al, 2010)
Psychiatric Contraindications to Obesity Treatment

- Severe, uncontrolled psychopathology (depression, schizophrenia)
- Active substance abuse
- Lack of knowledge or understanding of the behavioral and dietary changes necessary for an optimal outcome

Summary of the Psychological Evaluation of the Patient with Obesity

- Obesity is associated with a significant psychosocial burden
- Evaluation of psychosocial functioning is an important part of developing an effective treatment plan
- Evaluations may help identify patients at risk for suboptimal weight loss and psychological issues
Case Example

- 24 year old, Hispanic-American female interested seeking weight loss
- 5’2”, 228.8 lbs., BMI = 42 kg/m²
- Completed education for LPN 9 months ago, has yet to take licensing exam
- Unemployed, has lived with boyfriend for last 2 years
- No obesity-related health problems, family history of type II diabetes and sleep apnea
- First overweight at age 8

Case Example Weight and Dieting History

- Reported gaining 80 lbs. in past 2 years
- Previous weight loss attempts include:
  - Self-directed diets
  - Commercial programs (Weight Watchers)
- Current eating habits are quite poor, relies heavily on high fat, take out food
- Drinks 8-10 alcoholic drinks per week
- Binge eats on ice cream several times per week when emotionally upset
- Currently inactive
Case Example Psychosocial History

- Denied history of psychiatric treatment past or present
- BDI-II = 19 (moderate symptoms of depression)
- Mood is “good,” affect restricted
- Denied other symptoms of depression
- Displayed little insight into factors that may have contributed to 80 lb. weight gain over past 2 years

Question

- Based on all of the information presented here, is this woman a good candidate for weight loss treatment?