Pre-operative Psychological Evaluation and Treatment of the Bariatric Patient

DINA GOLDSTEIN SILVERMAN, PH.D.
LICENSED PSYCHOLOGIST/ASSISTANT PROFESSOR
COOPER UNIVERSITY HOSPITAL
COOPER MEDICAL SCHOOL OF ROWAN UNIVERSITY

Obesity: A Global Epidemic

- Obesity is currently one of the biggest public health issues in the United States and many Westernized countries, and it is becoming a global issue.
  - Approximately, 1/3 of the US population is obese, and another third is overweight and at risk for developing obesity in the future.
  - Worldwide obesity has more than doubled since 1980. In 2014, more than 1.9 billion adults (age 18 or over) were overweight, and of these, 600 million were obese (as defined by BMI greater than or equal to 30).
- A number of meta-analyses have demonstrated the effectiveness of bariatric surgery in improving severe obesity and its associated comorbidities. The three most commonly performed bariatric surgeries include the Roux-en-Y gastric bypass (RYGB), adjustable gastric banding (AGB) and vertical sleeve gastrectomy (VSG).

Classifications of Obesity by BMI

- Overweight – 25.0 to 29.9
- Class I (Low-risk) – 30.0 to 34.9
- Class II (Moderate-risk) – 35.0 to 39.9
- Class III (High-risk) – BMI > 40.0


Three of the most commonly performed bariatric surgeries

- Adjustable Gastric Band (AGB)
- Roux-en-Y Gastric Bypass (RYGB)
- Vertical Sleeve Gastrectomy (VSG)

Gastric Balloons

- As of Monday, February 5, 2018, the American Society of Metabolic and Bariatric Surgery has added the intragastric balloon to its list of approved procedures and devices, following an extensive analysis of their safety and effectiveness date.
- Balloons were originally approved by the FDA in 2015 for treatment of obesity in patients with BMI’s between 30 and 40.
- Since their approval, only 5000 balloons have been implanted, representing less than 3 percent of the 216,000 bariatric procedures performed in the US in 2016.
- Currently, there is no insurance coverage for intragastric balloons.
- Intragastric balloons represent a continuum of obesity care between weight loss medication and bariatric surgery.

Weight Recidivism

- Despite marked weight loss immediately following bariatric surgery, long-term weight regain and failure to sustain lasting weight loss are prevalent in a proportion of patients.
  - Sugerman reported that the magnitude of excess weight diminishes over time with percentage of excess body weight loss (EBWL) decreasing from 66% at 1-2 years to 55% at 10 years.
  - Approximately, 10-30% of patients regain a significant portion of their lost weight with long-term follow-up.
- The presence of a psychiatric disorder is associated with a significantly lower weight loss over a 50-month period.
- Rates of regain vary. Some studies suggest that 14-34% of the super morbidly obese (BMI greater than or equal to 50) will regain all the weight they lose within 10 years of surgery, while over 20% of the morbidly obese will regain the weight within 10 years.
- Internationally, that weight regain is as high as 50% within 2 years of surgery.
Factors in Weight Recidivism

- Nutritional Non-Compliance
  - Grazing behaviors
  - Poor dietary habits
- Hormonal/Metabolic Imbalance
  - Abnormal glucose tolerance testing (GTT)
  - Hypoglycemia
- Psychiatric Problems
  - Binge eating
  - Depression
  - Alcohol and Drug Use
  - Food Cravings
- Physical Inactivity
- Anatomic/Surgical Factors
  - Dilatation of the gastric stoma

Patients with two or more psychiatric conditions are approximately 6 times more likely to regain lost weight.

Physical Inactivity

Anatomic/Surgical Factors

Dilatation of the gastric stoma

Pre-Surgical Psychological Evaluation of Bariatric Surgery Patients

- In 1991, the National Institutes of Health Consensus Conference Development Panel recommended a multidisciplinary team approach to the surgical treatment of morbid obesity. Since that time, the majority of third-party payors and over 80% of bariatric surgery programs in the United States have required it. (16-19)

- In 2004, an ASMBS (American Society of Metabolic and Bariatric Surgery) ad hoc committee comprised of experienced bariatric behavioral health providers devised a document of Suggestions for the Psychological Evaluation of WLS candidates, drawing on the latest literature in the field. That document was recently updated to incorporate the most up-to-date research and recommendations (19)

The objectives of the preoperative psychological evaluation

- To provide screening and identification of risk factors or potential post-operative challenges that may lead to a poor post-operative outcome. These factors may lead to recommendations of additional management or intervention before and/or after surgery or may contraindicate surgery. The ultimate aim of these evaluations is to enhance surgical outcomes (19-22)

- To obtain information of importance to other providers (within and outside of the surgical program) who will work with the patient before and after surgery (19, 22)

Components of the Evaluation

1) SEMI-STRUCTURED CLINICAL INTERVIEW

2) PSYCHOMETRICS

Semi-structured Clinical Interview

- Weight History
  - Binge Eating
  - Night Eating Syndrome
  - Compensatory behaviors
  - Amenorrhea
  - Other disordered eating behaviors
  - Psychosocial history (depression, Bipolar Disorder, anxiety)
  - Developmental and family history (History of trauma)
  - Current and past mental health treatment
  - Cognitive functioning
  - Personality traits and impairment
  - Current stressors
  - Social support
  - Quality of life
  - Substance use and smoking
  - Adherence
  - Physical activity
  - Patient motivation and knowledge
  - Knowledge of surgical procedures, risks and benefits

Weight History

- Past weight loss attempts – clarifies the various environmental, physiological and cultural contributors that have affected the patient’s weight.
  - Specific types of weight loss interventions (e.g. fad diets vs. structured approaches)
  - Duration of adherence to various approaches
  - Contributors to adherence vs. barriers to adherence
  - Pre-operative weight loss progress
### Binge Eating

- Estimates of prevalence of BED in pre-operative bariatric populations range from as little as 2% to as high as 30% (and as high as 50% at sub-clinical levels).
  - Experience of loss of control
  - Bingeing as triggered by negative emotions or as a coping strategy
- Presence of BE post-operatively tends to lead to particular poor outcomes with RYGB

### Night Eating Syndrome

- Morning anorexia, evening hyperphagia and insomnia with awakenings followed by nocturnal food ingestion
  - Differs from sleep-eating disorder by the presence of full awareness rather than parasomnic nocturnal ingestions
- Predictive of obesity (most patients with NES had started at a normal weight)
- The presence of NES after surgery has been found to be associated with a higher post-operative BMI and lower outcome satisfaction

### Compensatory Behaviors, Anorexia Nervosa and other disordered eating behaviors

- Purging behavior/bulimia nervosa (a particularly poor predictor of outcome)
- Some studies have shown that there are patients who develop over-restricting eating patterns after surgery
- Other behaviors that undermine achieving a healthy weight post-operatively include:
  - Skipping meals
  - Eating in the absence of hunger
  - Poor portion control
  - Overreliance on prepared foods or consuming most meals outside the home
  - Grazing

### Psychosocial history and mental health treatment

- Research has demonstrated that obese individuals that seek weight loss treatment exhibit more psychopathology than individuals with obesity from community samples. In addition, patients with class III obesity tend to exhibit more psychopathology than healthy-weight individuals or those with less severe obesity
- Patients are more likely to report current or lifetime mood disorders, anxiety disorders (particularly PTSD, social phobia and panic disorder) – anxiety diagnoses are most common among this population
- Between 16 and 40% of patients report ongoing mental health treatment at the time of surgery
- There is some evidence that patients endorsing moderate or severe depression have poorer post-operative outcomes than patients without these symptoms
- SUBSTANTIAL EVIDENCE OF ELEVATED SUICIDE RISK IN THE BARIATRIC POPULATION, AND RISK OF SUICIDE INCREASES FOLLOWING SURGERY

### Personality Disorders

- Some studies indicate that patients with personality disorders constitute 20-30% of WLS patients. There are limited and mixed findings regarding their post-operative success
- However, symptoms associated with attention-seeking and self-harming behaviors may lead to poor psychosocial adjustment after surgery, and suicidal ideation is always a concern

### Cognitive Functioning

- Compelling evidence exists identifying cognitive difficulties, particularly with executive functioning, for WLS patients
- There is also significant co-morbidity for ADD/ADHD and obesity, and an elevated prevalence of ADD in patients pursuing bariatric surgery. Deficits in planning, organization and impulse control can affect the patient’s ability to adhere to the restrictive post-operative protocol
- Some data suggests that with behavioral follow-up, cognitive functioning improves in the first post-operative year
- In patients with intellectual disability, TBI and documented developmental delays, issues regarding understanding the risks and potential limitations of surgery, adherence to the post-operative protocol and of course, informed consent are particularly important
Personality, temperament, stressors and social support (53 – 57)
• Research indicates that low conscientiousness, poor impulse control and elevated neuroticism are related to risk for obesity 
  ○ It may be helpful to identify personality phenotypes in order to improve predictions of psychosocial, medical and behavioral outcomes.
• Adherence and poor self-care limit post-operative success
• Self-reported support from family and friends for patient’s decision to undergo surgery is associated with a higher likelihood of post-operative successful outcome

Substance Use and Smoking (5, 10, 20, 28, 50 – 54)
• Use and abuse of alcohol and other substances, such as prescription medications, should always be assessed, and if there are significant concerns, toxicology screening has been consistently recommended. Planning for perioperative pain control interventions is important, as there are case reports that have indicated narcotic addictions in post-WLS patients.
• Consensus in the field indicates that current substance abuse or dependence is a contraindication for surgery. Some programs require evidence of at least, a year of abstinence before surgery.
• There have been encouraging data suggesting that pre-operative treatment for and successful cessation of substance abuse or dependence is associated with greater post-surgical weight loss.
• Recent AACE/TOS/ASMBS guidelines advocate complete abstinence from alcohol for individuals at particular risks for alcohol abuse after surgery and smoking cessation prior to surgery.

Physical exercise and adherence (5, 10, 19, 63 – 64)
• Most WLS-seeking patients participate in low levels of physical activity. Unfortunately, after surgery an with weight loss, most patients do not make substantive changes to their exercise routine.
• Research shows that post-surgical physical activity leads to better weight loss outcomes and an improvement in quality of life.

Expectations, Knowledge, Motivation and Understanding of Risks and Limitations (5, 10, 19)
• Patients typically have unrealistic expectations about post-surgical weight loss, and those expectations are resistant to change, even after explicit patient education.
• Preoperative patients have a tendency to overlook or minimize risks associated with bariatric surgery and the scope of requisite behavior changes.

What kind of a patient has the best post-operative outcome? (6)
• Young, female, high SES, good mental health, satisfactory marriage/relationship, self-critical, copes in a direct and active way
• “Not too obese” (class I or II)
• Was obese before age 18
• Realistic expectations
• Undisturbed eating behaviors

Psychometrics
Eating Disorders and Behaviors
• Binge Eating Scale
• Questionnaire on Eating and Weight Patterns – Revised
• Weight and Lifestyle Inventory
• Yale Food Addiction Scale
Personality and Psychopathology
• Personality Assessment Inventory (PAI)
• Millon Behavioral Medicine Diagnostic (MBMD)
• Minnesota Multiphasic Personality Inventory – 2 (MMPI-2)
• Beck Anxiety Inventory
• Beck Depression Inventory
• Symptom Checklist 90-R (SCL-90-R)
• Rosenberg Self-Esteem Scale (SES)
• Hospital Anxiety and Depression Scale (HADS)
• Generalized Anxiety Disorder – 7 (GAD-7)
• Alcohol Use Disorders Test (AUDIT)
• Patient Health Questionnaire - 9 (PHQ-9)
Health Related Quality of Life
• Quality of Life Questionnaire
• Impact of Weight on Quality of Life
• Outcome Measures
  • Barrett’s Analysis Tool Reporting Outcome System (BAROS)
Treatment Considerations

INDIVIDUAL, GROUP, AND PSYCHOEDUCATIONAL MATERIALS

Treatment Options (69-70)

- CBT for Eating Disorders and Obesity (Fairburn model – emphasis on binge-eating)
- Acceptance and Commitment Therapy
- Mindfulness-Based Stress Reduction
- Motivational Interviewing

Considerations for psychotherapy with obese patients

- Social Cognitive Theory: importance of abilities, cognitions and self-efficacy on motivation and behavior
  - Cooking self-efficacy, label-reading and meal-planning skills (69)
- Research in nutrition suggests that many Americans purchase prepackaged, processed meals because they perceive themselves as not having time to prepare other foods and lacking self-efficacy or meal planning and label-reading skills. (69)
- Individual attitudes and behaviors, such as snacking whilst watching television and impact of exposure to nutrition messages in entertainment impact pediatric and adolescent eating behaviors and contribute to obesity. (69)

Additional treatment options and considerations

- Brief, 4-session group CBT model for a pre-operative psychoeducational group (75)
  - Developed by Kathleen Ashton, et al., at The Cleveland Clinic
  - Addresses self-monitoring and the relationship between thoughts, feelings and behaviors
  - Cognitive restructuring and emotional regulation
  - Stimulus control, mindful eating and behavioral chaining
  - Social coping and “advanced” coping strategies

Workbooks

A guide to mindful eating:

“The Eating Guidelines
1. Eat when you are hungry.
2. Eat sitting down in a calm environment. This does not include the car.
3. Eat without distractions. Distractions include radio, television, newspapers, books, intense or anxiety-producing conversations or music.
4. Eat what your body wants.
5. Eat until you are satisfied.
6. Eat (with the intention of being) in full view of others.
7. Eat with enjoyment, gusto, and pleasure.”

– Geneen Roth, Women, Food and God: An Unexpected Path to Almost Everything