Client Education: Teaching the Bariatric Patient

What Is Patient and Family Education (PFE) for the Bariatric Patient?

› Bariatric patients are patients with clinically severe obesity, defined as having a body mass index (BMI) ≥ 40 mg/m², and patients with a BMI ≥ 35 kg/m² with comorbid conditions (e.g., cardiovascular disease, obstructive sleep apnea [OSA], uncontrolled type 2 diabetes mellitus[DM2], weight-inducing problems that interfere with daily activities).

PFE for the bariatric patient is the process of providing nutrition information to the patient and their family, to improve general knowledge of bariatric care: increase understanding of what to expect during the preoperative, intraoperative, and postoperative phases of care; enhance abilities to perform feeding and meal planning skills; and cope with surgery-related complications and recovery

• What: PFE for bariatric patients is designed to promote healthy eating habits and increased physical activity, to enhance behavioral and social supports, and to decrease the serious health risks often associated with severe obesity. PFE for bariatric patients undergoing surgery (e.g., gastric bypass surgery) involves the teaching and learning process that spans the topics of preoperative preparation, the intraoperative phase, postanesthesia recovery, possibly the ICU or surgical unit experience, and postoperative discharge instructions

• How: A variety of learning and motivational activities (e.g., face-to-face instruction, written materials, Internet and other computer-mediated options, structured classes, psychoeducational classes, group or individual therapy, support groups) can be utilized to support the patient and family in the learning process

– The most effective strategy for delivering PFE is to individualize the content and provide the information using a combination of media in more than one session

• Where: PFE about diet and nutrition for bariatric patients usually begins in a registered dietitian’s (RD’s) office or hospital setting and extends throughout treatment aimed to reduce body weight and promote overall health

– Every effort should be made to ensure seamless delivery of PFE throughout during the care

- Redundancy and conflicting information should be minimized to reduce frustration and confusion as patients navigate the healthcare system and meet members of the healthcare team for medical, nutritional, cognitive, emotional, and behavioral evaluations and follow-up

• Who: Education about bariatric care can be given by the RD as well as other informed clinicians, including registered nurses, physician assistants, and physicians, but it should not be delegated to assistive staff

What is the Desired Outcome When Teaching the Patient/Family about Bariatric Care?

› PFE can empower bariatric patients and families and allow them to

• better understand the nutritional implications of bariatric surgery, as well as nutritional needs and recommendations before, during, and after weight loss surgery

• build skills necessary for modification of diet, exercise, and lifestyle

• employ effective strategies for managing symptoms (e.g., nausea, vomiting, diarrhea)
• participate in medical nutrition therapy and any support group therapies intended to decrease the risk of complications and promote adherence to dietary changes to provide for continued weight loss and associated disease management
• cope with the psychosocial, emotional, and spiritual aspects of surgery
• engage in lifelong behavioral changes to decrease the risk of complications (e.g., daily physical activity, annual follow-up visits and laboratory assessments, attendance at regularly scheduled support groups, proper nutrition, and eating habits)
• experience improved health outcomes (e.g., 90% of bariatric patients with DM2 experience normal insulin levels and no longer need diabetes medication after weight loss surgery)

Why Is PFE about Bariatric Care Important?
› PFE for bariatric patients provides persons who are severely obese, and their families, with an opportunity to gain knowledge, improve their ability to perform necessary self-care skills, and enhance their ability to cope with obesity-related complications and bariatric surgery, when required or desired
› Adults who are obese are at risk of experiencing social stigma, discrimination, and psychological problems (e.g., unstable depression, suicidal tendencies, eating disorders, substance abuse)
› People who are severely obese have often tried multiple diet and exercise programs without lasting success and are searching for support and psychoeducational interventions
› Bariatric surgery has the potential to improve or resolve comorbidities (e.g., hypertension, DM2, hypercholesterolemia, OSA, arthritis), decrease healthcare costs, and improve the patient’s quality of life
› Effective preoperative and postoperative PFE has been shown to reduce costs, decrease the length of stay in the hospital, improve knowledge of self-care skills and behaviors, and promote greater weight loss both before and after surgery (Isom et al., 2014)
› The Joint Commission (TJC) requires patient education a component of care. In 2004, TJC integrated the required patient education elements and standards throughout their accreditation manual instead of keeping them collected in a designated chapter (TJC, 2018)

Facts and Figures
› According to the United States Centers for Disease Control and Prevention (CDC), the U.S. has become an “obesogenic” society (i.e., one that promotes increased food intake, intake of unhealthy foods, and physical inactivity), and this movement is leading to a growing obesity epidemic; for further details, refer to http://www.cdc.gov/obesity/index.html
› More than one-third of U.S. adults (i.e., 39.8%, > 93.9 million) and 18.5% of children and adolescents are obese; an estimated 7.7% of Americans are extremely obese (NIH, 2017; CDC, 2018)
› In 2016, all states in the U.S. more than 20% of adults were obese. The South had the highest prevalence of obesity (32.0%), followed by the Midwest (34.1%), the Northeast (26.9%), and the West (26.0%) (CDC, 2018)
› Populations at increased risk include Hispanics (47.0%), non-Hispanic Blacks (46.8%), non-Hispanic Whites (37.9%), and 40-59 years old, middle-aged adults (42.8%) (CDC, 2018)
› The American Society of Bariatric Surgery reports that nearly 500,000 weight reduction surgeries are performed annually (Goldstein et al., 2010)
› Obesity contributes to approximately 112,000 preventable deaths annually (U.S. Department of Health and Human Services, 2010)
› Researchers found that obese patients who have qualified for bariatric surgery have room for improvement in their diets, as they often do not meet recommended dietary goals. Patients can benefit from education and medical nutrition therapy to help develop healthier nutritional habits that will help maximize and maintain weight loss (Jastrzebska-Mierzynska et al., 2014)

What You Need to Know Before Teaching a Patient and Family about Bariatric Care
› An Interdisciplinary care that includes medical, surgical, nutritional, and psychoeducational services) is the most effective clinical approach to managing severe obesity
› Psychological assessment and testing is needed to determine whether or not a patient is suitable for bariatric surgery; such testing should precede preoperative education
• The Minnesota Multiphasic Personality Inventory-2 can be used to assess and diagnose mental illness
• Pearson Education Services uses assessment parameters to assess emotional stability, ability to comprehend the risk of bariatric surgery and give informed consent, emotional resilience to withstand surgery and make necessary lifestyle changes after surgery, and motivation and commitment to adhere to lifestyle behavioral strategies
A candidate for bariatric surgery is usually not the only one in his or her family or support system who struggles with obesity. It is difficult to predict whether obese family members and friends will make it easier or more difficult for the patient to be successful in sustaining weight reduction; their involvement in educational efforts should be carefully evaluated throughout the care.

Before surgery, bariatric patients should be encouraged to lose weight. Even small amounts of weight loss can result in substantial loss of visceral fat and improve ease in performing bariatric procedures. Preoperative weight loss efforts provide some indication of the patient’s ability to adhere to dietary recommendations after surgery and are predictive of long-term success (Owers et al., 2012).

Reducing the preoperative carbohydrate load has been shown to minimize postoperative hyperglycemia and insulin resistance, as well as reduce losses of protein, fat-free mass, and muscle function (Thibault et al., 2015). Patients should be informed that bariatric surgery can be an effective means of achieving long-term weight loss and has been shown to resolve diabetes, hyperlipidemia, and hypertension. They should be cautioned that bariatric surgery can negatively affect their oral health. Postsurgically, bariatric patients are at increased risk for nutrient deficiencies, poor healing of oral tissues, gastroesophageal reflux, and tooth erosion (Moravec et al., 2011).

Morbidly obese patients often have vitamin D deficiencies; bariatric surgery can further exacerbate vitamin D and calcium deficiencies. Patients should be encouraged to work closely with RDs to promote adequate nutrient intake and to determine the need for supplemental regimens (Dewey et al., 2011).

Creating an environment that is conducive to learning for bariatric patients and family members is essential for meeting the needs of this particular patient population.

- A facility that is designated as a Center of Excellence for Bariatric Surgery must consistently
  - promote a culture in which staff are sensitive to the needs of bariatric patients
  - educate staff about the unique needs of bariatric patients and adaptations that may need to be made to provide quality care to severely obese patients
  - maintain furniture, equipment, and instruments that are suitable for morbidly obese individuals
- For further details on bariatric centers of excellence, refer to http://www.surgicalreview.org/

The most successful strategies for teaching bariatric patients are individualized educational interventions:

- Patient education and teaching tools (e.g., handouts, books, DVDs) should be tailored to address the patient’s specific needs and priorities
- Visually oriented informational handouts (i.e., those with diagrams and limited wording) should be patient-friendly and easy-to-read
- All teaching should be patient-centered and evidence-based
- Educational information should be delivered in a culturally sensitive manner and in a language and at a level that can be easily understood by the patient
- Professional certified medical interpreters, either in person, by a computer, or via phone, should be used when there are language barriers
- Simple, nonmedical language should be used for all patients, but especially when low literacy levels are assessed.

Preliminary steps that should be performed before teaching a patient about bariatric care include the following:

- Review facility protocols and policies specific to patient education and bariatric care
- Become familiar with facility-wide and unit-specific practices for teaching patients about bariatric care and surgery
- Identify acceptable resources available on-site or via the Internet

Verify availability of necessary supplies before initiating the educational session. Supplies can include:

- a teaching guideline or documentation form outlining key content areas
- corresponding written materials, including key points about who and when to call for questions and medical assistance
- additional materials that will vary based on the patient’s individualized needs and can include visual aids such as food models, sample food labels to teach label reading, and examples of supplements
- information about the Internet and community resources available to assist patients in learning about bariatric care and surgery
- information on how to contact the healthcare team for questions or concerns

How to Teach a Patient and Family about Bariatric Care

- Identify the patient according to facility protocol
Establish privacy by closing the door to the patient’s room and/or drawing the curtain surrounding the patient’s bed, if applicable
Introduce yourself to the patient and family member(s), if present; explain your clinical role
Assess patient and family for
- readiness to learn
  - Patients and their family members may be at different stages of readiness; it is important to individualize your approach based on each learner’s readiness
- preferred learning style
  - Individuals are auditory, visual, or tactile learners. Patients learn by hearing (e.g., listening to other individuals talk about their experiences of having bariatric surgery and how they dealt with dumping syndrome [i.e., rapid transport of undigested gastric contents into the small intestine]), by seeing (e.g., observing an RD plating an appropriate meal), and by doing (e.g., comparing food labels)
  - To quickly identify one’s preferred learning style, have the learner think back to the last time he or she learned something, and ask, “How did you go about it?”
- patient- and family-identified learning priorities
  - When there is incongruence between the patient/family’s priorities and the RD’s goals, explore why the incongruence exists (e.g., if a bariatric patient is committed to weight reduction, but his spouse cooks fattening meals for him; conflict is inevitable and needs to be addressed)
- learning barriers
  - Barriers to learning include impaired memory or cognitive issues; learning disabilities; physical limitations; language; low literacy; impaired hearing, sight, and/or speech; financial issues; and cultural, psychosocial, and/or emotional issues
  - Bariatric patients are often depressed and discouraged; most have gone through multiple attempts to lose weight through diet and exercise
  - Because surgical patients often deal with pain and fatigue, it is important to time PFE; aim to teach when the patient is most alert and comfortable
  - Patients with decreased mobility often have greater difficulty with self-care skills; they may need to learn these skills over time and have someone assist them until they can perform self-care
- learning needs and desires
  - Many patients and family members are preoccupied with the complexity of bariatric care and need coaching to understand essential information better
  - Especially if the patient’s health status is affected by life-threatening conditions (e.g., myocardial infarction, severe postprandial hypoglycemia, deep vein thrombosis [DVT], embolism), learning needs and desire should be assessed
Plan for timely delivery of relevant information
- The overall plan for bariatric PFE should be comprehensive but divided into smaller “bits” of information so as not to unnecessarily overwhelm the patient and family in any given learning session
  - There should be a clear delineation of who provides what information at what time. For example, before bariatric surgery,
    - the surgeon discusses the risks and benefits of the various surgical options
    - a nurse provides the patient with information about preparing for surgery and basic information about what to expect during and after hospitalization
    - an RD gives instructions on critical dietary changes and nutritional supplements that may be necessary pre and postsurgery and long-term
    - a psychologist counsels the patient about making necessary lifestyle changes
Implement the PFE plan
- Anticipate a planned approach to teaching/learning, yet be prepared to be flexible and individualize information based on the patient’s needs and desires; with the patient and family, set mutually achievable goals for learning
- Continually consult with all members of the bariatric team (e.g., physicians, nurses, physical therapists or exercise physiologists, psychologists) to assess progress and ensure consistency in the delivery of information
- For nonsurgical weight reduction, emphasize healthy eating, daily exercise, and avoidance of sedentary activities
  - Government initiatives that have been launched to address obesity include the CDC’s Healthier Worksite Initiative, the Let’s Move campaign, and the Communities Putting Prevention to Work program.
  - These programs emphasize simple, healthy lifestyle strategies (e.g., reducing consumption of soda and juices; eating more fruits, vegetables, whole grains, and lean proteins; controlling portions; drinking more water; choosing skimmed or low-fat milk and dairy products; becoming more physically active, such as walking 30 minutes daily; reducing television viewing time)
• If bariatric surgery is desired by the patient and deemed necessary by the healthcare team, weight loss surgical options should be discussed as part of the informed consent process
  – Roux-en-Y, the most common bariatric procedure, combines gastric restriction and malabsorption strategies; food bypasses the stomach, duodenum, and jejunum resulting in reduced consumption and absorption
  - Laparoscopic adjustable gastric banding, also known as lap-band surgery, limits stomach size by placing an inflatable band around the fundus of the stomach; the band is adjusted to meet the patient’s weight-loss and nutritional needs over time
  - Vertical banded gastroplasty, commonly called stomach stapling, involves creating a small stomach pouch that is restricted by a band or ring to slow the emptying of the food
  - Biliopancreatic diversion, a procedure rarely performed due to malnourishment issues, involves removing approximately 70% of the stomach and connecting the remaining stomach to the distal portion of the small intestine, bypassing the duodenum and jejunum

• Preoperative teaching should focus on preoperative dietary instructions and patient preparation. Preoperative education may include
  - General information about dietary and lifestyle changes that must be made after surgery due to the restricted size of the stomach pouch and changes in digestion and absorption of nutrients
  - Recommended list of protein and vitamin/mineral supplements and easily tolerated foods to purchase and have available before surgery
  - Preparation for surgery (e.g., NPO requirements, dietary restrictions, medication and herbal adjustments)
  - A brief overview of what to expect postoperatively (mobility; management of nausea and vomiting from food intolerance; how and when to advance diet)

• Postoperative teaching is usually designed to gradually return the patient to daily activities, medication, and diet, and may focus on practical issues such as meeting basic dietary needs, appropriate food choices, and meal planning
  - Discharge instructions focus on self-care following discharge and who/when to call for follow-up
  - Counsel patients to advance their diets as prescribed and as tolerated: keep portions small; chew each small bite thoroughly; stop eating when fullness is felt; avoid drinking fluids 30–60 minutes before and after eating; avoid foods not well-tolerated after bariatric surgery (e.g., red meat, chicken, turkey, white-flour products, foods high in sugar or fat, raw fruits and vegetables high in fiber)
  - Emphasize the importance of protein-enriched meals and snacks
  - Emphasize lifelong surveillance of nutrient deficiencies (e.g., vitamin B12, folate, iron), gastrointestinal symptoms (e.g., dumping syndrome, gallstones), and mood or behavioral issues
  - Caution patients to monitor for metabolic complications (e.g., protein-calorie malnutrition)
  - After massive weight loss, patients may request or require additional body contouring surgery to remove hanging fat and skin (e.g., panniculectomy)
  - Discuss and promote the role of physical activity in long-term weight loss, weight maintenance, and disease prevention
  - Capture teachable moments in the midst of clinical care
  - Integrate “what if” questions to guide the patient and family through potential problem-solving situations (e.g., what if you have nausea, weakness, sweating, and diarrhea after eating [i.e., dumping syndrome]; what if you notice hair loss, fatigue, and edema [i.e., protein deficiency]; what if your weight loss is less than expected and you are feeling down; what if there is an upcoming celebration that revolves around food)

• Use a variety of teaching/learning strategies for best results
  - Structured bariatric preoperative education classes have been shown to increase patient knowledge, decrease anxiety and need for analgesia, increase satisfaction with the hospital stay, and speed recovery time
  - Written materials (e.g., a booklet, fact sheets) have received mixed reviews
    - Their effectiveness may vary based on overall comprehensibility, visual appeal, legibility, text style, typeface, size, and layout
  - Internet resources are readily available to most bariatric patients, although healthcare professionals disagree as to the value of Internet information
  - Community resources (e.g., support groups) may be used to augment teaching and may help to increase weight loss and improve weight loss maintenance

– Evaluate the patient/family response to PFE
  - Continually reassess learning throughout the episode of care
  - A teach-back method can be used to evaluate learner understanding
  - Have the patient repeat important nutrition goals and carefully listen/observe and clarify, as needed
- Remember that specific information is better recalled than general information
- Self-efficacy ratings (i.e., the extent to which a person believes he or she is capable of achieving the desired outcome) can be used to evaluate how confident the learner is in understanding the information or performing a skill (e.g., ask, “On a scale of 1–10, how certain are you that you will be able to follow the prescribed diet correctly when you get home?”)
- If the patient’s response is < 7, readjust the plan (e.g., reteach until ≥ 7, further involve family or caregivers in teaching, arrange for home care to support patient and family until the desired result is met)
- Document the following information in the patient’s medical record and communicate any concerns with the multidisciplinary healthcare team so that information can be reinforced and the learning plan can be continued accordingly:
  - All PFE provided, including specific teaching/learning strategies implemented
  - Assessment findings regarding readiness to learn, preferred learning style(s), learning needs/desires, and learning priorities of the patient/family
  - Any identified barriers to learning and methods used to help overcome these barriers
  - Patient/family member response to learning, including the demonstrated level of understanding and/or ability to perform necessary self-care skills
  - Plan for continuation of PFE, including whether or not specific information should be reinforced or taught again using a different teaching method

Other Nutritional Interventions That May Be Necessary Before or After Procedure

› Review and address any medical diagnoses that may have nutrition implications before or after surgery and anticipate any adjustments in medical nutrition therapy due to bariatric surgery and the resulting reduction in weight, glucose, blood pressure, etc.

What to Expect After Teaching a Patient about Bariatric Care

› Bariatric patients and their family members will
  • verbalize a basic understanding of bariatric care and what to expect before, during, and after bariatric surgery
  • participate in shared decision-making about their care, as desired
  • perform basic self-care skills to the best of their ability
  • use effective strategies for managing their symptoms
  • recognize problems and respond appropriately
  • get their questions answered and identify resources for future questions
  • cope with psychosocial, emotional, and spiritual aspects of care
  • engage in lifestyle changes to decrease the risk of complications
  • experience improved health outcomes, when possible
  • experience a seamless delivery of information across the healthcare system
  • perceive that they have received information in a culturally sensitive manner using language that is understandable to them

Red Flags

› Roux-en-Y is considered to be a safe and effective option for severely obese adolescents; adjustable gastric banding should be considered investigational only, while biliopancreatic diversion is not recommended for this patient population
› Women who have undergone bariatric surgery should be counseled to avoid pregnancy for at least 18 months postoperatively; rapid weight loss and nutritional deficiencies can harm a growing fetus
› Unless supported by the patient, the use of family members as interpreters is a violation of the patient’s right to confidentiality

What Do I Need to Tell the Patient/Patient’s Family?

› Educate bariatric patients and their family members about the importance of healthy eating and increased physical activity to maintain weight loss and decrease the serious health risks associated with severe obesity
› Encourage the use of outpatient or community behavioral and social support networks as needed
References