

BARIATRIC SURGERY AND ITS GLOBAL IMPACT ON QUALITY OF LIFE

Alexandre Pozzobom Grando

Medicine Course at: Universidade de Cuiabá,
campus Beira Rio

Cuiabá – MT

<http://lattes.cnpq.br/2990335692682233>

Giovana Elisa Rosa Galiassi

Medicine Course at: Universidade de Cuiabá,
campus Beira Rio

Cuiabá – MT

<http://lattes.cnpq.br/2800195550208504>

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Abstract: Bariatric surgery is a response to the global obesity epidemic, offering a multifaceted solution to improving quality of life. In addition to promoting significant weight loss, this surgical intervention addresses obesity-associated comorbidities such as diabetes and hypertension, transforming metabolic health. The impact is not limited to the physical, extending to mental well-being, strengthening self-esteem and expanding social interactions. However, adherence to a healthy lifestyle after surgery and medical follow-up are essential to optimize results. Although it brings risks and challenges, bariatric surgery emerges as a powerful tool, transcending cultural and geographic barriers, to redefine quality of life globally. An integrative review was carried out on the impact of bariatric surgery on the quality of life of post-intervention patients.

Keywords: Obesity. Bariatric surgery. Quality of life.

INTRODUCTION

Obesity, an epidemic that reaches global proportions, presents a continuous challenge for health systems and for the quality of life of individuals. With implications that go beyond physical health, obesity is often associated with a series of comorbidities, such as diabetes, hypertension and cardiovascular disease, which compromise general well-being.¹ In this context, bariatric surgery has emerged as a multifaceted strategy to treat severe obesity and, in turn, redefine quality of life globally.²

The growing interest in bariatric surgery reflects not only the search for effective solutions for weight control, but also the recognition that obesity has a profound impact on many spheres of life. This surgical intervention goes beyond mere weight loss, addressing metabolic, psychological and social aspects that directly influence the quality of life of patients.³ The changing dynamics of the relationship between obesity and quality of life

is an ever-evolving area of study and medical practice, with implications that transcend geographic and cultural boundaries.¹

By examining recent medical advances and research findings related to bariatric surgery, we can shed light on how this approach is shaping the global picture of quality of life for individuals facing persistent obesity-related challenges.²

In this review, we will explore the multifaceted dimensions of the overall impact of bariatric surgery on quality of life. We will investigate how this surgical intervention not only promotes significant weight loss, but also influences metabolic health, self-esteem, mental health and social interactions.

METHODOLOGY

This is an exploratory literature review, organized through an integrative literature review. The collection of scientific data and the systematization of information come from scientific productions published from 2019 to 2023, in Portuguese and English, indexed in the Virtual Health Library (VHL), Scientific Electronic Library Online (SCIELO) and Google Scholar. The collection of information used in the development of the work was based on the proposed theme, as well as on its objectives.

RESULTS AND DISCUSSION

Bariatric surgery is a medical intervention designed to treat severe obesity and its associated comorbidities. It is a significant therapeutic approach for people who have failed to achieve sustainable weight loss through conventional methods such as diet and exercise. Bariatric surgery involves a series of procedures that aim to reduce the size of the stomach, modify the gastrointestinal tract, or both, resulting in significant and lasting weight loss.³

There are several types of bariatric surgical

procedures, each with its own characteristics and approaches.

- **Gastric Bypass (Roux-en-Y):** The gastric bypass procedure involves creating a small gastric pouch at the top of the stomach using linear staplers. Next, an anastomosis is formed between this pouch and the jejunum, through which food is directed, excluding a substantial part of the stomach and duodenum. This anatomical rearrangement promotes dietary restriction and malabsorption, leading to a significant reduction in caloric intake and decreased nutrient absorption.

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- **Sleeve Gastrectomy:** A sleeve gastrectomy, also known as a gastric sleeve, involves the surgical removal of approximately 80% of the stomach, resulting in the creation of a longitudinal tubular organ. This procedure predominantly aims at food restriction, significantly reducing the gastric accommodation capacity. Removing a substantial part of the stomach also appears to have effects on the gut hormones that regulate appetite, further contributing to weight loss.

- **Adjustable gastric band:** The adjustable gastric band is placed around the top of the stomach, creating a small proximal pouch. This band is connected to a subcutaneous device that allows its inflation or deflation. Food restriction is achieved by limiting gastric capacity and delaying gastric emptying. Although less invasive compared to other procedures, use of the adjustable gastric band has declined due to variable success rates and the need for frequent adjustments.

- **Bileopancreatic diversion:** Bileopancreatic diversion implies a more complex approach, which combines elements of dietary restriction and nutrient

malabsorption. Part of the stomach is removed to create a smaller gastric pouch, which is connected to the ileum, a distal part of the small intestine. The duodenal anastomosis is also bypassed, reducing nutrient and calorie absorption. This results in significant weight loss, but is also associated with an increased risk of nutritional and metabolic complications.

- **Duodenal switch:** The duodenal switch procedure is a variant of the bileopancreatic diversion that aims to optimize both food restriction and nutrient malabsorption. It involves the creation of a gastric pouch similar to a sleeve gastrectomy, followed by the formation of an anastomosis between this pouch and the distal part of the ileum. Additionally, the duodenum is completely bypassed, maximizing reduced caloric and nutritional absorption.

One of the main goals of bariatric surgery is sustainable weight loss. Decreased food intake and reduced calorie absorption lead to significant weight loss in the weeks and months after surgery. However, to maintain long-term success, patients must adopt a permanent change in eating habits and incorporate regular exercise into their daily routine.

In addition to weight loss, bariatric surgery can also result in substantial improvements in obesity-related comorbidities such as type 2 diabetes, hypertension, sleep apnea, and cardiovascular disease. Many patients experience a remarkable improvement in their metabolic health, with some cases of complete diabetes remission after surgery.

Bariatric surgery not only results in remarkable weight loss, but also promotes profound metabolic reconfiguration. Reducing adipose tissue has positive effects on insulin sensitivity, often leading to type 2 diabetes remission and improved cardiovascular health. In addition, decreasing excess weight

can relieve pressure on the cardiovascular and respiratory systems, contributing to a decrease in hypertension and sleep apnea. These metabolic transformations not only improve health in the short term, but also have a lasting impact on patients' quality of life.¹

The relationship between obesity and mental health is intricate and often underestimated. Obesity can lead to psychological problems such as depression and anxiety due to social factors, stigma and hormonal dysfunction¹. Bariatric surgery not only positively influences these disorders, but can also provide a renewed sense of self-control and self-esteem. As patients experience physical evolution, they often experience a boost in their mental health, which results in a greater willingness to face emotional challenges.⁴

The physical change after bariatric surgery is accompanied by a significant transformation in the perception of self-image and self-esteem of patients.³ Substantial weight loss often leads to a dramatic improvement in physical appearance, increasing confidence and self-acceptance. This can have a profound impact on social interaction, allowing patients to more fully engage in social activities, establish stronger emotional connections, and meet new challenges more positively.²

Obesity can lead to social isolation, due to factors such as stigma, limited mobility and self-consciousness. Bariatric surgery, by promoting mobility and improving self-image, often leads to increased social participation⁸. Patients feel more comfortable engaging in recreational activities, participating in social events, and strengthening interpersonal relationships⁴. This expansion of the social circle contributes significantly to improving the quality of life and provides a renewed sense of belonging.⁸

While bariatric surgery offers a number of benefits, it also comes with unique challenges.

Adhering to a balanced diet and exercise routine, as well as maintaining long-term weight loss, can be challenging.⁹ Ongoing support from healthcare professionals, nutritional counseling and support groups can play a vital role in overcoming these challenges and optimizing outcomes.⁷

Bariatric surgery is not without risks and challenges. Postoperative complications can occur, including infections, leaks, nutritional deficiencies, and adverse reactions to anesthesia. In addition, bariatric surgery requires significant patient commitment, including adherence to a strict eating plan, long-term vitamin supplementation, and regular medical follow-up.⁹

It is important to recognize that bariatric surgery is not a quick or easy solution to obesity. It must be considered as part of a multidisciplinary approach to weight loss and must be discussed in detail with qualified healthcare professionals². For many people, bariatric surgery can be a valuable tool for achieving sustainable weight loss, improving metabolic health, and ultimately increasing quality of life.¹

CONCLUSION

Bariatric surgery transcends geographic, cultural and social boundaries, offering a tangible route to improving the quality of life for people affected by obesity. By addressing metabolic, emotional and social issues, this surgical intervention triggers a transformation that goes beyond mere weight loss.

However, this journey is not an isolated solution, as it requires commitment, multidisciplinary support and a positive mindset on the part of patients. As bariatric surgery continues to evolve and adapt to individual needs, it remains a powerful tool to effectively impact quality of life on a global scale.

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