



RESEARCH ARTICLE

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PERCEPTION OF BEARERS OF SEVERE OBESITY REGARDING THE BODY IMAGE AND QUALITY OF LIFE AFTER BARIATRIC AND METABOLIC SURGERY - A PILOT STUDY

1,2,3,*Rafael Rodrigues Rothbarth, 1,3Roberto Zilio, 4Raquel Rezzadori Matos, 5Marcelo Bortoluzzi, 1,2,3Jovani Antonio Steffani and 1,2,3Carina Rossoni

¹Universidade do Oeste de Santa Catarina –Unoesc, Joaçaba, Santa Catarina, Brazil

²Unoesc Postgraduate Program in Biosciences and Health

³Unoesc Medicine Course

⁴Universidade Comunitária da Região de Chapecó, Unochapecó, Chapecó, Santa Catarina, Brazil

⁵Universidade Estadual de Ponta Grossa –UEPG, Ponta Grossa, Paraná, Brazil

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ABSTRACT

The aim of this study was to analyze the perception of patients, with severe obesity in relation to body image and quality of life, who underwent to bariatric and metabolic surgery. This is an observational study, carried out with 12 female patients evaluating body image (BSQ) and quality of life (WHOQOL-BREF) in the postoperative period (90 days). There was improvement in quality of life in the four domains scores. Regarding body image, there was an improvement at 90 days, and there was no association between the percentages of reduction of excess body weight at 90 days after surgery with the improvement of body image perception.

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INTRODUCTION

The global obesity epidemic (globesity) is a major public health problem (WHO, 2016). In Brazil, 17,3% of the population has obesity issues (BMI > 30 kg/m²) and about one million are bearers of severe obesity (BMI > 40 kg/m²), having an increase of 255% in 30 years, affecting mainly women (WHO, 2016). The increasing numbers in the prevalence of obesity is associated with chronic diseases including diabetes mellitus, cardiovascular diseases and cancer, mainly (WHO, 2016). In addition to these comorbidities, patients with obesity are also at higher risk of developing psychiatric diseases, negatively affecting social function, coping capacity and quality of life (Batsis *et al.*, 2009). Quality of life is recognized as an important instrument in the measurement of results after bariatric surgery, being useful even in the recent postoperative period (Nguyen *et al.*, 2006).

According to the World Health Organization, quality of life can be defined as "the way in which the individual perceives his/her position in life, in the cultural context and system of values in which he/she lives and related to the expectations, objectives, standards and concerns, being a multidimensional concept, subjective and with positive and negative dimensions". In recent years, this issue has been the subject of many questions among health professionals and the scientific community, due to the real impact of the disease on the life dimensions of individuals. It should be noted that this evaluation and management of contingencies could provide an increase in patients' life expectancy (BERLIM & FLECK, 2003). In patients undergoing bariatric and metabolic surgery, significant improvements in quality of life and body image are demonstrated early in the postoperative months and, with rare exceptions, are maintained until the second postoperative year. We highlight the association with the significant reduction of body weight provided by the surgical treatment of obesity (SARWER *et al.*, 2010).

*Corresponding author: Rafael Rodrigues Rothbarth,

Women are the population most affected by obesity and bariatric surgery usually leads to improvement in health status (and also sexual quality of life), depressive symptoms and self-esteem of these patients in short follow-up time (CHERICK *et al.*, 2019). Considering obesity as a chronic disease with multifactorial etiology, its treatment involves several approaches including changes in lifestyle, dietary reeducation, regular physical exercise and behavioral changes; however, the results obtained through conventional treatments in severe obese people are very frustrating (NIH, 2000). It is recognized, in scientific circles, that more than 90% of these patients fail to achieve and maintain a 5-10% reduction in body weight for a period of more than five years, as well as that the weight reduction with medications has shown moderate efficacy, but long-term effects on weight maintenance are still unknown (NIH, 2000; MASON, 1967). Thus, the surgical treatment of obesity is considered the most effective method in individuals with severe obesity, because it promotes better control of weight and comorbidities in the long term, when compared to the conservative (non-surgical) method (MASON, 1967; MAGGARD *et al.*, 2005; Gloy *et al.*, 2013). In this context, this study aimed to analyze the perception regarding body image and quality of life of patients with severe obesity submitted to bariatric and metabolic surgery in the immediate postoperative period.

MATERIALS AND METHODS

An observational, cross-sectional study was conducted, in which the individuals selected shared the exposure status. This type of study always occurs in the direction that the events occur, and may be prospective and/or retrospective (BONITA *et al.*, 2010). Our study is carried prospectively, with the participants being evaluated in the preoperative hospital phase and re-evaluated in ambulatory care 90 days after surgery.

Participants: The sample of this study was of 12 female patients submitted to Roux-en-Y gastric bypass (GRYR) reduction gastrectomy in 2015. Included in the study were individuals with severe obesity, female, with indication of surgical treatment of obesity according to the criteria established by the Federal Council of Medicine⁹, i.e., BMI > 35 kg/m² with comorbidities aggravated by obesity and BMI > 40 kg/m². Exclusion criteria consisted of patients who were illiterate, who did not have normal conditions of consciousness and lucidity and who did not accept to participate in the study. This study was approved by the Ethics Committee in Research of the Universidade do Oeste de Santa Catarina with the report under No. 1.021.031.

Instruments and procedures: The sociodemographic data of the patients were obtained by means of medical records registered in a database of the surgery service. Anthropometric data were collected in the preoperative period, and also 30 and 90 postoperative days, the variables were: weight (kg), height (cm), BMI (kg/m²). For postoperative body image evaluation (of 30 and 90 days), the BSQ (Body Systemic Questionnaire) was used, instrument filled by the patient. The score shows absent body distortion < 70 points; slight body distortion 70 to 90 points; moderate distortion 90 to 110 points; and intense distortion > 110 points (DI PIETRO & SILVEIRA, 2009). The perception of patients with severe obesity on their quality of life was evaluated in the pre- and postoperative period (30 and 90 days) by means of the research instrument *World Health Organization Quality of Life (Whoqol-bref)*, translated and validated into the Portuguese language, covering four domains:

physical, psychological, social relations and the environment (Kluthcovsky & Kluthcovsky, 2009). Quantitative variables were described by means of the calculation of mean and standard deviation or interquartile range and median. Qualitative variables were described by absolute and relative frequencies. In the comparison of means between genders, the *t-student* test for independent samples was applied. The comparison of levels of anxiety and depression according to the BMI was held by the Kruskal-Wallis test. To compare averages over time, the *t-student* tests for paired samples or Analysis of Variance (ANOVA) for repeated measures complemented by the Bonferroni test were applied. In case of asymmetry, the Wilcoxon and Friedman tests were respectively used. In the comparison of the categorical data the McNemar test was applied. The association between the numerical variables was evaluated by the Pearson or Spearman correlation coefficients. The significance level adopted was 5% ($p < 0,05$) and the analyzes were performed in the SPSS program version 21.0.

RESULTS

From the sample of 12 female patients, 60% had a full course or specialization and 13.3% were smokers. According to the anthropometric data presented in Table 1. Patients' self-perception regarding quality of life showed that there was a significant improvement in the scores of the domains ($p < 0,001$): physical, psychological, social relations and the environment, and at all times (Table 2). When the postoperative body image was evaluated, it was observed that there was a significant improvement at 90 days ($p = 0,010$), can be seen in Table 3. There was no association between % of reduction of excess body weight at 90 days with improvement of body image perception ($r_s = -0,046$; $p = 0,888$). There was also no significant association between improvement of body image with BMI improvement at 90 days ($r_s = -0,432$; $p = 0,161$).

DISCUSSION

Currently, the efficacy of surgical treatment has been highlighted, since morbid obesity is a risk factor for psychiatric disorders and psychological dysfunctions (CABRANES, 2009). There is concern about the impact of this treatment on the quality of life and well-being of these patients, since bariatric surgery reduces the severity of morbidities and promotes an increase in self-esteem, resulting from satisfaction with body image (CABRANES, 2009). We could see two findings in our study, according to the patients' perception, a significant improvement in quality of life and body image. The two most commonly performed surgical techniques for the treatment of obesity are vertical gastrectomy (Sleeve) and gastric bypass. The surgical technique adopted in this study was gastric bypass. Major & Cols (2015) were able to demonstrate that gastric bypass surgery presents good results in the resolution of comorbidities, percentage of loss of excess weight and improvement of the quality of life in the medium and long term after surgery, the latter exceeding even standard reference values. Regarding gender, the prevalence of the patients in this study was 100% of women, corroborating with studies that show data similar to those obtained by Moreira & Cols (2011), demonstrated from their sample, which resulted in 76.5% of women with a mean age of 39.05 years. Cherrick & Cols (2019) found, in an exclusively female sample of morbid obese women (such as this study), improvement in sexual quality of life, depressive symptoms

Table 1. Anthropometric characteristics of the studied population

Characteristics (n = 12)	Mean ±
Age (years)	37,3 ± 10,1
Weight (kg)	101,5 ± 12,7
Excess Weight (kg)	36,5 ± 11,7
Body Mass Index (kg/m ²)	39,1 ± 4,8

Table 2. Comparison of the domains of quality of life over time of women undergoing bariatric and metabolic surgery

Characteristics	Previous Mean± DP	90 days Mean± DP	p*
Physical domain	47,0 ± 17,4	80,4 ± 12,2	<0,001
Psychological domain	53,8 ± 16,9	76,7 ± 12,5	0,001
Social relations domain	60,4 ± 17,8	84,0 ± 15,3	0,008
Environment domain	63,8 ± 11,5	78,4 ± 8,5	<0,001
General	46,9 ± 20,7	86,5 ± 14,6	<0,001

^{a,b,c}Equivalent letters do not differ by the Bonferroni test at 5% significance

Table 3. Pre and postoperative body image evaluation (BSQ) of women undergoing bariatric and metabolic surgery

Parameters	Pré op n (%)	Post op (90 days)	n (%)	p
BSQ Classification*				0,010
No dissatisfaction	3 (25,0)	11 (91,7)		
Mild dissatisfaction	3 (25,0)	1 (8,3)		
Moderate dissatisfaction	4 (33,3)	0 (0,0)		
Severe dissatisfaction	2 (16,7)	0,0)		

*BSQ - Body Systemic Questionnaire

and self-esteem. When the quality of life was evaluated, it was observed a significant improvement in the scores of the domains: physical, psychological, social relations and environment at all postoperative moments. Similar data were obtained in the study of Chang & Cols (2010), with 102 bariatric patients, evaluated through the application of Whoqol-bref in the pre- and postoperative periods 1, 2, 6 and 12 months. These showed improvement in the physical, psychological and social domains, as well as associated comorbidities, demonstrated especially at 6 and 12 months postoperative, unlike our study, which identified this improvement at 3 months after surgery. According to Hachem & Cols (2016), the improvement in quality of life after bariatric surgery is more effective when compared to other obesity treatment modalities, and it is more satisfactory in the first two years after surgery, especially in the evaluation of the physical and psychological domains. In the long term, there is also an improvement in the quality of life, Driscoll & Cols (2015) reported this improvement in patients submitted to surgery after 5 years of follow-up.

Morbidly obese individuals report having an impaired life, according to their perception (Sarwer *et al.*, 2010; Rutledge *et al.*, 2011). However, a major concern of the bariatric surgery teams is the caution with the idealizations of the magic of surgery, since patients seek a "cut" of what is bothering them. The urgency of ceasing the physical and psychological limitations related to obesity, because one cannot support them anymore, may contribute to the idealizations of bariatric and metabolic surgery. Moraes & Cols (2014) evaluated 16 patients, through the Whoqol-bref questionnaire before and after bariatric surgery, where 25% of the patients considered their quality of life and health poor or very poor, showing dissatisfaction before surgery, and, after surgery, evaluated as good and very good. Data similar to those found in our study. This impact of overweight and bariatric surgery may contribute to the development of psychological complications

according to the study developed by Mota & Cols (2014), with morbidly obese bearers submitted to the surgical treatment of this disease. Most interviewees overestimated their actual BMI and 100% were dissatisfied with their body image. Despite weight reduction and symptom improvement, the participants had body image disorders in the postoperative period. In our study, patients with morbid obesity showed a significant improvement in body image in the postoperative period. However, when analyzing the association of this with the percentage of body weight and BMI reduction, we found an improvement in a timid and limitary way at 90 postoperative days. When considering the improvement of body evaluation after bariatric surgery in super obese patients (BMI ≥ 50kg/m²), these refer to have obtained the improvement of the satisfaction with the body image between 6 and 12 months according to what was expected (HRABOSKY *et al.*, 2006). Morbidly obese subjects undergoing bariatric and metabolic surgery tend to feel satisfaction from weight reduction but may find it difficult to recognize themselves and identify with the lean body, feeling awkward or keeping the previous body image superimposed on their current body (Moliner & Rabuske, 2008). Silva & Faro (2015), evaluated pre and postoperative patients of bariatric surgery, regarding the social motivations for performing the surgery, the clinical issues of surgery and changes in diet.

They identified that the surgical treatment of obesity evokes different meanings, men are more concerned with health issues and comorbidities associated with obesity, and women feel pressured to have a perfect body and are worried about the social image linked to being obese. Thus, patients with morbid obesity believe in the preoperative that undergoing surgical treatment of obesity will be worthwhile, since the procedure will allow the release of the social and physical suffering that the overweight promotes, issues not referenced in the postoperative. It is necessary to analyze how much obesity means and the representation of obesity in today's society,

since there are related social issues such as less agility, productivity, difficulty in managing life, body, the relationship between control and lack of control, relaxation or being relapsed, a complex and painful disease. In view of the above, the importance of a careful evaluation and follow-up of the multi professional team for the treatment of obesity is justified, with special emphasis on the presence of the psychology professional, contributing directly to the contextualization of the physical, alimentary and health changes that the surgery bariatric and metabolic promotes. We also emphasize that the results found in our study should be viewed with discretion, since they represent the reality of a service in a small casuistry. However, we sought to analyze a general panorama regarding the self-perception of patients submitted to bariatric and metabolic surgery in the immediate postoperative period.

Final considerations

According to the self-perception of patients with severe obesity, bariatric and metabolic surgery showed a positive impact in the first six postoperative months in relation to the improvement of body image and quality of life, even before the expected reduction of the excess body weight.

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