

Preoperative psychiatric assessment in candidates for bariatric surgery: an integrative review

Avaliação psiquiátrica pré-operatória em candidatos à cirurgia bariátrica: uma revisão integrativa

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ABSTRACT

Introduction: The bariatric surgery, although very effective for obesity treatment, does not treat the psychological dysfunctions that contributed to the development of obesity. Therefore, a multidisciplinary treatment, aiming to treat not only the biological part, but the individual as a whole, can be decisive for the success of the procedure. **Objective:** To analyze the importance of psychiatric assessment before bariatric surgery. **Methods:** The study is an integrative review conducted in PubMed, LILACs, BVS and SciELO databases between September and November 2021. The descriptors used were: "Psychiatry" OR "Psychology" AND "Bariatric Surgery". 720 studies were found, of which only 22 matched the research theme according to the selection by the abstract and the full text. **Results:** Studies demonstrate that the prevalence of psychiatric disorders in bariatric candidates is higher than the general population. Furthermore, it is noted that the lack of standardization psychiatric evaluation before bariatric surgery, which can make detection difficult the diagnosis of psychopathologies for a later psychiatric intervention. **Conclusion:** To improve the bariatric surgery prognosis, it is beneficial that the psychiatric care be made in standardized way, enabling the identification of psychopathology that can negatively influence success of the procedure.

Keywords: Bariatric surgery; Psychiatry; Preoperative care.

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RESUMO

Introdução: A cirurgia bariátrica, embora muito eficaz para o tratamento da obesidade, não trata as disfunções psicológicas que contribuem para o desenvolvimento da doença. Portanto, um tratamento multidisciplinar, visando tratar não apenas a parte biológica, mas o indivíduo como um todo, pode ser decisivo para o sucesso do procedimento. **Objetivo:** Analisar a importância da avaliação psiquiátrica antes da cirurgia bariátrica. **Métodos:** O estudo é uma revisão integrativa realizada nas bases de dados PubMed, LILACs, BVS e SciELO entre setembro e novembro de 2021. Os descritores utilizados foram: "*Psychiatry*" OR "*Psychology*" AND "*Bariatric Surgery*". Foram encontrados 720 estudos, dos quais apenas 22 corresponderam ao tema de pesquisa de acordo com a seleção pelo resumo e pelo texto completo. **Resultados:** Estudos demonstram que a prevalência de transtornos psiquiátricos em candidatos bariátricos é maior do que da população geral. Além disso, nota-se a falta de padronização da avaliação psiquiátrica antes da cirurgia bariátrica, o que pode dificultar o diagnóstico de psicopatologias para uma intervenção psiquiátrica. **Conclusão:** Para melhorar o prognóstico da cirurgia bariátrica, é benéfico que o atendimento psiquiátrico seja feito de forma padronizada, possibilitando a identificação de psicopatologias que podem influenciar negativamente o sucesso do procedimento.

Palavras-chave: Cirurgia bariátrica; Psiquiatria; Cuidados pré-operatórios.

INTRODUCTION

Obesity is a chronic and multifactorial disease characterized by excess body fat, resulting from successive caloric surpluses. This condition is harmful to physical and mental health, since it increases the risk of developing clinical complications, ranging from diabetes mellitus and systemic arterial hypertension to several types of malignant neoplasms and neurophysiological disorders¹⁻³. The guidelines indicate bariatric surgery as the most effective treatment for patients with obesity class III (BMI \geq 40kg/m²) or obesity class II (BMI \geq 35kg/m²) with serious clinical complications. The procedure is recommended not only because of the weight loss but also because of the management of clinical comorbidities associated with obesity, which minimizes the morbidity and mortality related to this disease¹.

However, although bariatric surgery is the gold standard treatment for severe obesity, it does not directly intervene in the behavioral and psychological dysfunctions that may be associated with this disease. Thus, several studies show the need for a multidisciplinary approach adapted to the individuality of each patient, since part of the patients do not achieve or maintain adequate weight loss after surgery, and many develop psychosocial complications that have

importance in the prognosis of bariatric surgery^{1,2,4}. The evaluation of problems that can contribute to an unfavorable postoperative prognosis is of great use, which highlights the importance of assessing psychosocial factors in preoperative consultations and analyzing the patient's preparation for the procedure^{5,6}.

In this context, a difficulty in comparing different studies is observed due to heterogeneity in the form of pre-surgical evaluation of bariatric candidates⁷. The lack of a standardized professional approach to evaluate mental health is also evident in psychiatric disorders, such as the disagreement or lack of consensus among authors about the management of binge eating and the damage caused by psychopathology to the surgical prognosis^{5,8}.

The purpose of the present literature review is to analyze the importance of psychiatric and psychological evaluation of the candidates for bariatric surgery in order to recognize psychosocial factors that may impair the patients' prognosis. Additionally, it also aims to compare several researches from different locations with distinct medical approaches and to discuss the necessity to use standardized tools to assess the candidates' mental health.

For this purpose, the review was discussed in the following topics: (1) Main psychic factors analyzed in preoperative consultations; (2) Frequent psychopathologies

in candidates to bariatric surgery; (3) Eating compulsion: is it or not a contraindication? (4) Relationship between the dimension of persistence and weight loss; (5) Consultation questionnaires and need to create a standard protocol; (6) Importance of psychiatric and psychological evaluations.

METHODS

This is an integrative review: a study that seeks to systematize the knowledge produced about a subject and problematize it, as well as draw new research paths.

The research question was: "What is the importance of psychological and psychiatric follow-up before bariatric surgery?" Therefore, the population included was: obese adults who were candidates for bariatric surgery.

The research was conducted using the PubMed, LILACs, BVS, and SciELO databases between September and November 2021. The descriptors used were: "Psychiatry" OR "Psychology" AND "Bariatric Surgery". The inclusion criteria were: observational or review articles, in Portuguese and English languages, published between the years 2011 and 2021, addressing the proposed research topics. The exclusion criteria were duplicated articles, studies presented as abstracts, and case reports.

The selection was carried out independently by three authors (M.L.M., A.F.C.B., L.C.R.). Disagreements were resolved through discussions. 720 studies were found, of which only 22 were relevant to the research topic based on the eligibility criteria.

RESULTS

Regarding the selected articles, seven were reviews and systematic reviews, eleven were original articles, one was a prospective study, and three did not specify the type of study that was performed. In addition, with regard to the objectives described, only one study did not present it clearly. The Table 1 presents the general characteristics of the assessed studies, such as the location, study type, objectives, main findings, and the instruments utilized in the investigation.

It is necessary to clarify that the research literature varied in the use of questionnaires according to the countries of the surveys. Therefore, there was a lack of uniformity in capturing data in different countries⁸⁻¹¹.

With regard to the main results, approximately 55% (n=12) highlight that the prevalence of psychiatric disorders in bariatric surgery candidates is higher when compared to the general population. While the prevalence in the general population is around 20-25%, it is approximately 40% among bariatric surgery candidates¹¹⁻¹⁵. This is because these patients have specific psychosocial characteristics and stigmas within society because of obesity¹⁶, commonly presenting within this group anxiety disorders, mood disorders, and binge eating disorders^{2,13,15,17}.

In studies such as Gordon et al. (2011)⁷ and Silva and Maia (2013)⁸, the most prevalent disorder among the bariatric population (30%) is binge eating disorder (BED) that has been associated with less weight loss, presenting cognitive behavioral therapy and interpersonal therapy as means of reducing the condition of these patients and the frequency of compulsive episodes. At the same time, when it comes to drugs, Gordon describes a lack of long-term efficacy studies of antidepressants in these cases.

However, Kvaalem et al. (2016)¹⁸ presented few significant differences between the groups studied — patients in conservative weight loss and bariatric surgical patients — by means of mental health self-assessment, but still there was an emphasis on the predisposition to present depressive symptoms and binge eating episodes in the surgical patient groups. At the same time, the surgical group showed greater disciplinary competence and hope in the prognosis.

At the same time that some studies such as Silva and Maia (2013)⁸ dissertate that there is no literature consensus about the impact of psychopathology on surgical success and postoperative changes, other studies such as Hampton and Wedin (2015)¹⁹ and Gordon (2014)¹ address the beneficial effects that preoperative therapeutic follow-up may have on bariatric patients. They then include positive effects on both surgical prognosis, treatment compliance, and long-term follow-up.

Furthermore, the need for monitoring patients previously diagnosed with disorders and who will undergo bariatric surgery is often discussed^{5,20}, some of them suggesting the importance of a multidisciplinary approach^{3,21}. This occurs, since the pre-surgical evaluation not applied effectively can interfere in the post-surgical prognosis.

The roles of the psychiatrist and the psychologist are described as the basis for the initial evaluation of patients. The research of aspects related to their life history, previous psychic problems, psychic suffering, degree of motivation to maintain treatment, use of alcohol and drugs, as well as diagnoses of disorders before the surgical procedure are part of the responsibilities of these professionals in patient follow-up^{4,6}. In addition, it is described that it is at this moment that the team's perception about the psychosocial situation of the patient is available, covering issues that affect the patient's decision to seek the procedure¹².

DISCUSSION

MAIN PSYCHIC FACTORS ANALYZED IN THE PREOPERATIVE CONSULTATIONS

The preoperative assessment of candidates for bariatric surgery is a part of the predictive investigations and longitudinal follow-up of the patients⁴. In order to evaluate the candidate's readiness for the operation,

Table 1. Characteristics of the studies evaluated.

Author (country)	Type of study	Objective	Principal results	Psychological Assessment Instrument
Akamine 2013 ³ (BR)	It was not explained.	It was not explained.	A multidisciplinary approach is important in bariatric surgery procedures, so that psychic factors are considered, optimizing the overall treatment result. The relationship between the patient and the psychologist is fundamental and psychological support should occur both pre and postoperative, in order to investigate the existence of psychopathologies, to understand the patient's expectations and to analyze the aspects of obesity in its quality of life.	N/A
Bordignon 2017 ⁴ (BR)	Systematic review.	To identify personality disorders as probable predictors of results in bariatric surgery.	The researches showed that the smallest loss of weight relates to externalizing changes, while the somatic worries and the psychopathology relates to internalizing changes. The persistent dimension is positively associated with greater weight loss. The neuroticism and the presence of an eating disorder were not considered predictors to weight loss. Regarding changes in personality traits after bariatric surgery, there was a tendency for a reduction in neuroticism scores and an increase in extraversion scores.	N/A
Conceição 2015 ¹⁷ (PT/EUA)	Review.	To conduct a literature review on the pre and postoperative period of bariatric surgery in patients who have eating disorders or problematic eating behaviors.	There is no consensus on pre and postoperative treatment for bariatric surgery. This demonstrates the need to score specific and standardized guidelines to assess individuals with eating disorders or problematic eating behavior candidates for the procedure.	N/A
Edwards-Hampton 2015 ¹⁹ (EUA)	It was not explained.	To describe the challenges regarding preoperative assessment and treatment for weight loss.	The pre-bariatric psychological evaluation is important for the analysis of the patient and for the preparation of post-surgical care. The patient's individuality should be considered, taking into account inappropriate eating behaviors, psychiatric comorbidities, and substance abuse.	N/A

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Table 1. Characteristics of the studies evaluated.

Author (country)	Type of study	Objective	Principal results	Psychological Assessment Instrument
Efferdinger 2017 ²⁰ (AT)	Qualitative survey research.	To analyze the emotion regulation strategies applied in candidates for bariatric surgery before and after the procedure; to evaluate the interactions between emotion regulation, depression, quality of life, and mass loss.	Improvement in depression symptoms and emotional regulation was observed after six months of bariatric surgery.	Beck Depression Inventory-II; Short Form-36 Health Survey; Emotion Regulation Inventory for Negative Emotions.
Filardi 2020 ² (BR)	Systematic review.	To analyze the importance of psychiatry and psychological follow-up in individuals undergoing bariatric surgery, in order to provide epidemiological and statistical information on this issue.	Psychopathologies are prevalent in individuals able to undergo bariatric surgery. Depression disorders, alcohol abuse, attention deficit disorder and bipolar disorder are twice as common in patients who seek this procedure than in the general population.	N/A
Flores 2014 ⁵ (BR)	Systematic review.	To analyze the psychological evaluations of bariatric patients, identifying the resources used, the preparation time, the protocols and the importance of this practice.	There is consensus regarding the most of the contraindications of surgeries and the main psychological factors to be analysed during the preoperative consults. However, there is a need to create a standard protocol to guide the conduct of the professionals at mental health that works with bariatric patients.	N/A
Gordon 2011 ⁷ (BR)	Systematic review.	To perform an updated literature review on the psychiatric follow-up of bariatric patients.	Although bariatric surgery is beneficial in terms of reducing clinical complications associated with obesity, there is a significant increase in mortality related to suicide and impulsive behavior.	N/A
Gordon 2014 ¹ (BR)	Prospective.	To analyze the clinical, epidemiological and psychosocial preoperative factors in individuals undergoing bariatric treatment.	The prognostic evaluation by the BAROS method showed that the best prognosis is generally related to the highest level of persistence, the lowest level of body dissatisfaction, the shortest postoperative period, the practice of physical activity, and the absence of compulsive pinching after the procedure.	Temperament and Character Inventory; Binge Eating Scale; Body Shape Questionnaire; Beck Depression Inventory; Hamilton Anxiety Rating Scale.

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Table 1. Characteristics of the studies evaluated.

Author (country)	Type of study	Objective	Principal results	Psychological Assessment Instrument
Grilo 2013 ¹⁰ (EUA)	Quantitative research.	To analyze the factor structure and validity of the Eating Disorder Examination- Questionnaire (EDE-Q) in bariatric surgery candidates.	Confirmatory factor analysis indicated an inadequate fit for the EDE-Q structure and revealed an adequate fit for a recently proposed alternative questionnaire structure.	Eating Disorder Examination- Questionnaire (EDE-Q); Body Shape Questionnaire (BSQ); Beck Depression Inventory (BDI); Rosenberg Self-Esteem Scale (RSES).
Joaquim 2019 ²² (BR)	Qualitative survey research.	To identify patients' experiences regarding psychological assessment before bariatric surgery.	Most respondents considered the psychological assessment before bariatric surgery to be relevant. The reports of these individuals indicate the importance of a protocol that guides health plans and the public health network to have a minimum number of psychological sessions before and after surgery.	Semi-structured interview.
Keeton 2020 ¹⁶ (EUA)	Qualitative research.	To analyze the factors related to the continuation of bariatric surgery among different ethnic groups.	Factors established as facilitators for the surgical procedure were: desire for improvement of comorbidity, mobility, and changes in physical appearance. The factors identified as obstacles to the procedure were: concerns about changing behaviors and lack of security about the operation.	In-depth interviews.
Kudel 2019 ¹⁵ (EUA)	Longitudinal qualitative research, survey.	To analyze the psychometric properties of the Patient Reported Outcome Measurement Information System (PROMIS), depression (PROMIS-D) and anxiety (PROMIS-A) in a sample of pre-surgical bariatric patients.	The rates of anxiety disorders and depression reported were 17% and 23%, respectively. 65% of the patients analyzed reported experiencing these symptoms "never" or "rarely".	Patient-Reported Outcomes Measurement Information System (PROMIS) Depression (PROMIS-D) and Anxiety (PROMIS-A) Short Forms.

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Table 1. Characteristics of the studies evaluated.

Author (country)	Type of study	Objective	Principal results	Psychological Assessment Instrument
Kvalem 2016 ¹⁸ (NO)	Non-randomized clinical trial.	To compare behavioral and psychosocial characteristics related to adherence to long-term lifestyle recommendations between patients scheduled for bariatric surgery and patients receiving treatment for morbid obesity.	Patients who started treatment conserved for morbid obesity had beliefs about their readiness to change physical activity levels, while those who opted for bariatric surgery had more positive expectations of treatment results and more considerable beliefs about the ability to achieve these results.	N/A
Mitchell 2015 ¹³ (EUA)	Longitudinal qualitative research, survey.	To describe the eating behaviors and prevalence of binge eating and determine the factors related to eating psychopathologies before bariatric surgery.	Regarding eating psychopathologies, it was observed that 43.4% of the individuals analyzed had loss of control when eating, 17.7% had night eating syndrome, 15.7% met the criteria for binge eating, and 2% had bulimia nervosa.	LABS-2 Behavior Form; Beck Depression Inventory.
Mitchell 2012 ¹¹ (EUA)	Longitudinal qualitative research, survey.	To analyze and to replicate previous studies on the preoperative psychiatric issue and describe the findings.	The prevalence of psychopathology among bariatric surgery candidates was higher than the prevalence of the parameter in the general population.	Eating Disorder Examination; Structured Clinical Interview for DSM-IV; Beck Depression Inventory.
Ribeiro 2018 ²¹ (BR)	Qualitative survey research.	To evaluate the pre and postoperative psychological parameters of patients undergoing bariatric surgery in a public health system.	A reduction in anxiety, depression, and binge eating was observed 23 months after bariatric surgery. However, these symptoms increased 59 months and 60 months after the procedure.	Semi-structured interview; Beck Depression Inventory (BDI) and Beck Anxiety Inventory (BAI).
Sarwer 2020 ¹² (EUA)	Review.	Highlight the relevance of preoperative psychosocial screening of patients; to describe avenues for future research that may promote lifelong success after bariatric surgery.	Approximately 40% of current candidates for bariatric surgery having previous history of mental health treatment with percentages higher than seen in the general population.	N/A
Sarwer 2021 ⁹ (EUA)	Qualitative survey research.	To analyze and to evaluate psychosocial factors, eating behaviors and impulsivity in candidates for bariatric surgery.	It was observed that anxiety disorder is the most common current diagnosis in bariatric surgery patients, while depressive disorder is the most common diagnosis during the lifetime of these individuals. In addition, cases of drug or alcohol abuse, food addiction, and night eating disorder were observed. Current drug use and lifetime anxiety disorder were associated with a higher frequency of impulsive choices.	Structured Clinical Interview for the DSM-5; Beck Depression Inventory-II; Night Eating Questionnaire; Yale Food Addiction Scale.

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Table 1. Characteristics of the studies evaluated.

Author (country)	Type of study	Objective	Principal results	Psychological Assessment Instrument
Silva 2013 ⁸ (PT)	Longitudinal qualitative research, survey.	To check weight changes, psychopathology and health problems of patients who underwent bariatric surgery, based on assessments carried out between 6 and 12 months after surgery.	Patients reported a considerable reduction in the number of complaints of health problems and significant weight loss after six and twelve months of bariatric surgery. Rates of psychopathology were low before the procedure and did not change significantly. Conscientiousness, extraversion and pleasantness increased, while neuroticism and openness remained unchanged.	Sociodemographic Questionnaire; Rotterdam Symptom Checklist; Self-Report Diseases Checklist; Brief Symptom Inventory; NEO Five-Factor Inventor.
Smaidi 2016 ⁶ (BR)	Systematic review.	To analyze psychological and psychiatric aspects in post-bariatric surgery individuals.	After bariatric surgery, significant weight loss is observed in patients and, in some cases, improvement in comorbidities and overall quality of life. The preoperative analysis of psychiatric aspects is relevant to the success of the procedure, since psychopathologies can influence the outcome.	N/A
Yen 2014 ¹⁴ (TW)	It was not explained.	To understand the role of psychiatry in bariatric surgery.	A reduction in some psychiatric symptoms is observed after bariatric surgery. However, in cases of suicide risk and little weight reduction, post-surgical psychiatric follow-up becomes necessary. Pre-bariatric surgery follow-up is also important.	N/A

Legend: N/A: No assessment; BR: Brazil; PT: Portugal; US: United States of America; AT: Austria; NO: Norway; TW: Taiwan.

the analysis of psychosocial factors during preoperative consultations is essential. Some of these are the candidate's comprehension of the procedure and the lifestyle changes, the expectations regarding the postoperative outcomes, the ability to follow the medical recommendations, the risk comprehension, the eating behavior, the current and previous psychiatric comorbidities, the motivation to undergo bariatric surgery, the social support, the substance use or abuse, the socioeconomic status, the conjugal satisfaction, the cognitive functioning, the self-esteem, the history of trauma or abuse, the quality of life and the suicidal ideation^{5,6}.

The diagnosis and the treatment of problems that may impair the postoperative outcomes are indispensable⁶ due to the fact that weight loss after surgery is directly related to psychiatric factors analyzed in the preoperative context.

Compulsive personality profiles are negatively associated with weight loss, hypersensitivity to criticism and difficulties in solving problems, which are related to poorer adherence to the orientations during the postoperative period⁴.

Eating disorders, compulsive consumption, depressive disorders, anxiety disorders and substance use disorders, particularly alcohol-related, are the most common diagnoses in the preoperative psychiatric assessment⁶. Depressive symptoms are characterized as the least satisfactory outcomes after bariatric surgery, which reveals the need of a right treatment and follow-up in the preoperative and the postoperative period in order to optimize the prognosis of patients that present depression after surgery¹. Additionally, there are other factors that may postpone or rescind the operation: lack of comprehension of the risks and benefits

involved in the procedure; resistance to adhere to the medical recommendations; suicide attempts and severe life stressors. Some mental health professionals consider substance dependence and other psychotic disorders as the main contraindications to bariatric surgery⁵.

Finally, it is important to see the sub notification of psychiatric symptoms reported by the candidates as an issue. They do that in order to not be excluded from the procedure. In light of this perspective, the healthcare team should utilize efficient psychometric tools during the psychiatric assessment in the preoperative consultations and they have to be attentive to the possibility of omission by the candidates¹⁵.

FREQUENT PSYCHOPATHOLOGIES IN CANDIDATES FOR BARIATRIC SURGERY

Several psychosocial and behavioral aspects are associated with different prognoses. Given that, many surgery bariatric programs require that patients undergo a mental health assessment in the preoperative period.⁹ In addition, the psychiatric evaluation before the surgery is indicated by the authors as essential to the candidate selection process^{2,4,6}.

Studies indicate that the prevalence of psychopathologies is significant among bariatric patients and these issues are more common among them in comparison with the general population^{2,11,12,15}. A research based on the “Longitudinal Assessment of Bariatric Surgery” revealed that the most prevalent lifetime diagnoses are affective disorders, anxiety disorders and alcohol abuse or dependence whilst the most current diagnoses were anxiety disorders, phobia, major depressive disorder and eating disorders. Also, the findings indicated that the many participants were taking psychotropic medication¹¹.

Another study based on a chart review of two years revealed that the most common psychopathologies among the sample of bariatric surgery candidates are anxiety disorders, mood disorders and binge eating disorder¹⁵. One study determined that the prevalence of depressive disorders, alcohol abuse, attention deficit hyperactivity disorder and bipolar symptoms are twice higher among the candidates for bariatric surgery than among the general population².

Furthermore, another study indicated that the most prevalent current diagnosis among bariatric patients was anxiety disorders (25%) and the most common lifetime diagnosis was major depressive disorder (44%). In addition, the prevalence of alcohol and drug abuse, food addiction and night eating syndrome was significant⁹. It was indicated, based on the application of structured questionnaires, that the frequency of depression in the preoperative context was pronounced, but there was a decrease in depressive symptoms after the surgery²⁰.

With regard to the mental health matters related to eating behaviors, the authors noticed, using the

“Longitudinal Assessment of Bariatric Surgery”, that majority of the participants had at least one disorders, such as loss of control eating, night eating syndrome, binge eating disorder and bulimia nervosa¹³.

It is evident that the literature indicates higher numbers among the candidates for bariatric surgery than among the general population regarding the prevalence of psychopathologies. In general, the authors say that a psychiatric approach is needed in case of morbid obesity aiming to treat mental health issues that may be harmful to the procedure, but without the intention of separating who can or can not be operated^{2,6}. Thus, the authors propose the importance of such psychological and psychiatric follow-up of patients in the long term. In this sense, Joaquim et al. (2019)²² will question, in Brazil, the lack of this, evidenced also by the research participants. It is noted, therefore, the importance of creating legislation that guides health plans and the Unified Health System, in order to regularize a minimum amount of psychological sessions in the pre- and postoperative periods and more uniform protocols to evaluate patients.

Resolution No. 2,131/2015 of the Brazilian Federal Council of Medicine (CFM) provides general indications for bariatric surgery, namely: patients with a Body Mass Index (BMI) above 40kg/m²; patients with a BMI above 35kg/m² and patients with life-threatening comorbidities; older than 18 years; obesity established according to the above criteria with previous unsatisfactory clinical treatment of at least 2 years. Adolescents aged 16 and under 18 years old can be operated as long as a pediatrician is part of the multidisciplinary team and if cartilage consolidation is observed in the wrist growth epiphyses. Still, surgery in those under 18 is experimental²³. It can be seen, then, that despite the clear indication of prerequisites for performing bariatric surgery, the need to use standardized protocols that include a previous psychiatric evaluation is not clearly established.

FOOD COMPULSION: IS IT OR IS IT NOT A CONTRAINDICATION?

The diagnosis of binge eating disorder (BED) in patients that underwent bariatric surgery is likely to be related to a poor weight loss or to a weight regain after the procedure⁶, which explains why this disorder is a risk factor to the candidates for the surgery².

In the literature, there is evidence that the identification of binge eating disorder in the preoperative assessment is a predictor of binge eating disorder in the postoperative context⁴. The evaluation before the surgery should consider the severity of BED and the necessity of a more careful support in the postoperative¹. Night eating syndrome and binge eating disorder not only are related to poorer surgical outcomes but also are associated with other psychopathologies⁹. However, in general, there is

not a consensus regarding the management of eating binge disorder in candidates for bariatric surgery⁵.

Some authors say that, due to the possible remission after the procedure, food compulsion should not be considered a contraindication to the surgery. Despite that, it should be evaluated accurately. Still, some professionals consider the existence of active symptoms of food compulsion as a probable or definite contraindication and others indicate that patients with the diagnosis of binge eating disorder should not undergo the surgery before the psychotherapeutic management of the psychopathology⁵.

In conclusion, there is a lack of consensus among the authors regarding the management of binge eating disorder. Given that the scientific evidence indicates that it is significantly related to poorer postoperative results, some writers suggest that researchers and other professionals develop a protocol to assess food compulsion in the preoperative consultations⁵. Personalized interventions in the preoperative and in the postoperative periods regarding binge eating disorder can improve and optimize the patients' results².

THE PERSISTENCE DIMENSION AND WEIGHT LOSS

The Cloninger's "Temperament and Character Inventory" is used in several studies with the aim of identifying the aspects related to personality traits, which include four temperament and three character dimensions. The persistence, one of the dimensions of the Cloninger's model, was associated with greater weight loss in the postoperative context^{1,4}. Additionally, the authors indicated a positive association between a higher score of the persistence factor and a reduction in the Body Mass Index (BMI). Also, there is a relation between treatment failure and lower scores of the persistence dimension¹.

Bariatric patients with this personality trait are more likely to follow medical, nutritional and physical instructions in the postoperative period in order to achieve the required changes. These individuals are more persistent and determined to maintain the results and the behaviors acquired, even in an absence of reinforcement^{1,4}. These findings suggest that the assessment of the candidates' personality traits before the bariatric surgery is important for the physicians to understand the different surgical prognosis⁴.

CONSULTATION QUESTIONNAIRES AND NEED TO CREATE A STANDARD PROTOCOL

In the literature, different questionnaires were used in the preoperative assessment of the patients in the several countries where studies were conducted, which reveals the existent variability in the process of evaluation around the world. There are important differences not only in the evaluated content but also in the disorders that are

considered as contraindications to bariatric surgery or as important to be diagnosed^{5,10,17}.

Among the consultation questionnaires, the "Eating Disorder Examination-Questionnaire (EDE-Q)" tried to assess the disordered eating behaviors reported by the patients¹⁰; whereas, studies such as Mitchell et al. (2012)¹¹, which analyzed the use of the "Longitudinal Assessment of Bariatric Surgery (LABS-3)" as research protocol for the examination of psychosocial issues that affect the patients before and after the procedure, and Mitchell et al. (2015)¹³, which was based on the "Longitudinal Assessment of Bariatric Surgery-2 (LABS-2)" with the same aim. Another method utilized in the literature was the self-reporting questionnaires using scores and reports from the patients regarding symptoms of disorders and psychopathologies not necessarily diagnosed¹⁸.

In view of the above, the absence of a standardized protocol to assess the patients' health is notable given the differences in evaluation questionnaires used and in criteria for contraindications. Nevertheless, the studies indicated a consensus regarding the necessity to establish a protocol for medical approach in the mental healthcare system^{5,10,19}.

Also, the consistency in healthcare and in the longitudinal follow-up of the bariatric patients can positively influence the surgical outcomes¹⁷. Thus, some studies proposed that there are methods to standardize the process and to establish protocols for bariatric surgery programs around the world. There are softwares indicated to register and to interpret data collection, questionnaire application, psychoeducation, longitudinal follow-up before and after the surgery and multiprofessional care^{5,19,22}.

IMPORTANCE OF PSYCHIATRIC AND PSYCHOLOGICAL EVALUATIONS

There is a consensus in the literature that the multiprofessional evaluation is essential to the patients' longitudinal follow-up^{3,5,21}. Due to the psychological context of the individuals and to the high prevalence of previous disorders among this population¹¹⁻¹⁵, the mental assessment is essential in bariatric programs. Using this tool, it's possible to guarantee a general understanding of the patients' reality and of the specific psychosocial factors that may influence weight loss^{6,16}. In addition, the psychiatrist and the psychologist have an important role in patients' psychoeducation since this professional helps them to understand all the aspects involved in bariatric surgery^{5,12,14}.

Furthermore, some authors discuss how different disorders can affect the bariatric patient's prognosis and how much the psychiatrist and the psychologist are necessary during the process. The preoperative mental health assessment is important to diagnose possible previous disorders, to treat them, if needed⁷, to improve the surgical

prognosis¹ and to determine the candidates' readiness for the procedure. This evaluation allows the professionals to comprehend each patient's life history, motivations, fears, anguishes, concerns and other significant factors that can be treated and solved during the preoperative period in order to optimize surgical outcomes²².

CONCLUSION

The approach to a patient undergoing bariatric surgery should not be limited solely to the surgical procedure, as it alone does not encompass all the necessary biopsychosocial care for patient follow-up. Therefore, considering the high prevalence of psychopathologies among bariatric candidates, a multidisciplinary treatment approach should be understood as part of long-term procedure success, optimizing weight loss and preventing relapse or the emergence of harmful behaviors to health and surgical prognosis. The establishment of standardized pre- and post-surgical protocols, along with the use of psychometric sound assessment tools, may facilitate continuity of care and contribute to studies that reach a consensus on the management and criteria for contraindication of mental disorders for the procedure's execution. Thus, in order to achieve a positive surgical prognosis, it is necessary to standardize the process and thereby enable the standardization of assessment for surgical candidates, treatment, and long-term monitoring of mental health.

AUTHOR CONTRIBUTIONS:

We describe contributions to the papers using the taxonomy (CRediT) provide above: Conceptualization, Investigation, Methodology, Visualization & Writing – review and editing: Mateus Lima Martins, Ana Flávia Conegundes Benício, Letícia Chagas Rocha, Isadora Soares Bicalho Garcia, Letícia Oliveira Monteiro, Marisa de Oliveira Torres Almeida. Project administration, Supervision and Writing: Elaine Leandro Machado.

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