

**PSYCHOLOGICAL ASSESSMENT FOR BARIATRIC SURGERY: CURRENT PRACTICES***Avaliação psicológica para cirurgia bariátrica: práticas atuais*

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**ABSTRACT – Introduction:** The prevalence of obesity on a global scale has alarmed health institutions, the general population and professionals involved in its treatment. Bariatric surgery has emerged as an effective and lasting alternative for weight reduction and improved general health. In this context and as part of a multidisciplinary team, psychologists are responsible for the preoperative psychological assessment of bariatric candidates. **Aim:** To investigate how psychological assessments are occurring, including the identification of utilized resources; factors that are addressed; the duration of the process; existing protocols; and to evaluate the importance of this practice. **Method:** A systematic review of national and international literature, through PubMed and Scielo's databases, using "psychological assessment", "obesity" and "surgery", as keywords. **Conclusion:** There is an agreement about the main factors that should be investigated during the preoperative assessment, as well as the main contraindications for the surgical procedure. The importance of the psychological assessment is well established in the field of bariatric surgery. However, this area needs a standard protocol to guide the mental health professionals that deal with bariatric patients.

**RESUMO – Introdução:** A prevalência da obesidade em nível mundial tem alarmado as instituições de saúde, a população e os profissionais envolvidos no seu tratamento. A cirurgia bariátrica aparece como alternativa efetiva e duradoura para a redução do peso e melhora geral da saúde. Nesse contexto, o psicólogo apresenta-se como parte da equipe multiprofissional, responsável pela avaliação psicológica pré-operatória do candidato a procedimento bariátrico. **Objetivo** – Verificar como são realizadas as avaliações psicológicas dos pacientes bariátricos, incluindo a identificação dos recursos utilizados, fatores avaliados, duração do processo, protocolos existentes, bem como verificar a importância dessa prática. **Método** – Revisão da literatura nacional e internacional, nos bancos de dados do PubMed e Scielo, com os descritores "psychological assessment", "obesity", "surgery". **Conclusões** – Há consenso sobre os principais fatores psicológicos a serem investigados durante a avaliação pré-operatória, e sobre a maior parte das contraindicações para o procedimento cirúrgico. A importância da avaliação psicológica está bem estabelecida no campo da cirurgia bariátrica. Contudo, esta área necessita de protocolo-padrão para nortear a conduta dos profissionais de saúde mental que trabalham com o paciente bariátrico.

**INTRODUCTION**

Obesity, in recent years, has become a global epidemic and has begun to be the focus of innumerable studies. Alarming data divulged recently by the World Health Organization revealed that in 2008 more than 200 million men and 300 million women were obese worldwide. In addition, 65% of the global population was living in countries where being overweight or obese caused more deaths than being underweight or suffering from malnutrition<sup>26</sup>.

The high prevalence of obesity, on a global scale, has alarmed authorities and has demanded effort by professionals involved in its treatment, including medical doctors and other health professionals, to find new alternatives to manage this disease<sup>13</sup>. In this context, bariatric surgery began to be considered as the only effective alternative to treat obesity. Benefits of the surgery surpass significant and prolonged weight loss and include: a reduction of the associated comorbidities; remission of depression and anxiety symptoms; improvement in sexual functioning; an increase of activity; and improvement in the general quality of life associated with health<sup>1,12</sup>.

In Brazil, the number of bariatric surgeries has almost quadrupled, increasing from 16,000 in 2003, to 60,000 in 2010. For a person to be considered a candidate for bariatric surgery, it is necessary that his Body Mass Index (BMI) must be higher than 40 kg/m<sup>2</sup> or above 35 kg/m<sup>2</sup> with associated comorbidities (eg. type II diabetes, sleep apnea, arterial hypertension, dyslipidemia, coronary disease, osteoarthritis and others). It is also necessary to have a history of unsatisfactory clinical treatment for at least two years<sup>3</sup>.

In addition to the weight and comorbidity requirements, in 1991, the National Institute of Health in the United States, established a multidisciplinary approach to patient assessment during the preoperative period, which included psychological evaluation as an essential part of this process<sup>17</sup>. In the same way, the Brazilian Bariatric Consensus and the Federal Council of Medicine endorsed this practice, as they require the presence of a psychologist or psychiatrist, as part of the multidisciplinary team<sup>4</sup>.

According to the Federal Council of Medicine, psychologists and/or psychiatrists of the multidisciplinary team should ensure the absence of substance disorders, psychotic disorders and dementia. These professionals are also responsible for guarantying that patients have the intellectual and cognitive understanding of the risks associated with the surgery and the special care needs that are a consequence of the surgery during both the immediate postoperative period and in the long term<sup>4</sup>.

As discussed previously, the high prevalence of obesity in Brazil has caused an increase in the number of bariatric surgeries. This has led to an expansion in the participation of psychologists in the field of preoperative evaluation. Thus, the purpose of this study is to review the literature through a narrative description of the main results that is focused on how psychological evaluations have been practiced.

## METHOD

A systematic review of national and international literature through PubMed and Scielo's databases was conducted, without delimitating a time frame. The keywords were: "psychological assessment", "obesity" and "surgery". Principally, articles with full text available, articles considered seminal in the field and publications relating directly to the study of psychological evaluation for bariatric surgery were selected.

### Relevant factors for psychological assessment

In order to determine the readiness of a candidate undergoing bariatric surgery, different aspects of the patient's life are considered by psychologists. Among the psychosocial factors that deserve attention, the most commonly cited were: the patient's understanding of the surgery and the necessary lifestyle changes; expectations regarding the results; the ability to adhere to operatory recommendations; eating behavior (weight history, diet, exercise); psychiatric comorbidities (current and previous); reasons to undergo the surgical procedure; social support; substance use; socioeconomic status; conjugal satisfaction; cognitive functioning; self-esteem; history of trauma/abuse; quality of life and suicidal ideation<sup>1,2,5,18,20,23,24</sup>.

Candidates may not be considered psychologically eligible for bariatric surgery as impediments may arise after the consideration of the psychosocial factors previously mentioned<sup>18</sup>. A study conducted with 194 mental health professionals in the United States listed "psychiatric problems" as the main contraindication for the surgery, cited by 91,2% of the respondents. The primary problems in this category were: substance use/abuse/dependence, eating disorders, psychotic disorders, depression and suicide<sup>5</sup>.

In addition to the contraindications stated above, other factors that can postpone or rescind the surgery are: a lack of understanding regarding the risks, benefits and results of the surgical procedure; a reluctance to adhere to the postoperative recommendations; severe mental retardation; multiple suicide attempts or a recent suicide attempt; active symptoms of obsessive-compulsive disorder and bipolar disorder; severe life stressors; and nicotine use<sup>1,2,20,21</sup>.

Binge eating is a polemic topic in relation to bariatric surgery, as the authors opinions are divided when it comes to this matter. Some authors defend that bingeing can go into remission after the surgery and, therefore, should not be seen as a contraindication but as a factor to be evaluated carefully<sup>1,11</sup>. Other researchers mention that only some of the patients with binge eating, prior to the surgery, go back to this behavior afterwards, so again, the compulsion should not be a contraindication, but a topic to approach before surgery<sup>9</sup>.

In contrast a study conducted by Bauchowitz et

al.<sup>2</sup> demonstrated that active symptoms of binge eating disorder were considered by approximately 90% of the health professionals surveyed as a "definite" or "possible" contraindication to the surgery. Corroborating this idea, Hout et al.<sup>10</sup> highlighted that patients with bingeing behavior should not be treated surgically until their eating behavior is normalized through therapy. Furthermore, Snyder<sup>24</sup> mentions only nervous bulimia as a clear contraindication, but not binge eating disorder.

Due to the lack of consensus between authors as how to manage binge eating, and due to evidence proving that clinically significant binge eating is associated to poorer surgical results, some authors suggest that researchers and health professionals come to an agreement on how to better describe and evaluate binge eating in relation to bariatric surgery<sup>21</sup>.

### Resources employed during psychological assessment

The psychologist, during the assessment for the surgery, has to be prepared to investigate emotional, psychiatric and cognitive issues that can interfere with the result of the operation. For this purpose, clinical interviews and psychological testing appear to be the most valuable resources in obtaining information about the patient's psychological functioning<sup>1,5,21,24</sup>.

Patient's behavior, presence of psychiatric symptoms, understanding of the surgical procedure, eating behavior, stress level, presence of a stable and supporting environment, expectations and reasons that lead to the surgery are some of the aspects usually investigated during the clinical interview. Therefore, the preoperative psychological assessment is unique and differs from other traditional psychological evaluations<sup>2,24</sup>.

The aim of the psychological testing is to obtain an objective measure of the patient's psychological adjustment and assess their preparation to the surgery. Consequently, the testing is an indispensable tool used to collect information and complement subjective data collected during the clinical interview<sup>24</sup>.

For conducting the formal psychological testing, the most cited methods were symptom inventories and personality tests; the Beck Depression Inventory and the Minnesota Multiphasic Personality Inventory represented the most utilized in their respective categories<sup>2,5,14,21,24</sup>. It is important to highlight that, currently, the last one is not approved for use in Brazil<sup>4</sup>.

Enquiries regarding eating behavior, especially concerning binge eating disorder and night eating syndrome are also conducted, but not as frequently and with a greater number of instruments available for this purpose. The Binge Eating Scale, the Questionnaire of Eating and Weight Patterns, the Eating Disorder Inventory, the Eating Disorder Examination – Questionnaire Version and the MOVE! Questionnaire were the most commonly used tools for investigating eating disorders<sup>2,5,6,21,22</sup>.

As with the main personality test Minnesota Multiphasic Personality Inventory used internationally, none of the instruments described above have been approved by the Brazilian Federal Council of Psychology and hence their use is prevented<sup>3</sup>. Furthermore, it is important to highlight the fact that these resources were not created focusing on bariatric patients and their idiosyncrasies. For this purpose, and due to great inconsistency in the understanding of the psychological functioning of bariatric patients, some specific techniques were developed, for example, the Boston Interview<sup>25</sup> and the PsyBari<sup>14</sup>. Nevertheless, these instruments have not been translated to Portuguese or adapted for use in Brazilian culture.

The first approach mentioned above, developed by the Medical Psychology Service at the VA Boston Healthcare System, is a semi-structured interview for pre-surgical gastric

bypass evaluation. This interview contains seven major areas that are assessed: 1) weight, diet and nutritional history; 2) current eating behaviors; 3) medical history; 4) understanding of surgical procedures, risks and postoperative regime; 5) motivation and expectations regarding surgical results; 6) relationships and support system; 7) psychiatric functioning<sup>25</sup>.

The second approach, known as PsyBari, is a psychological test specifically developed for pre-surgical psychological evaluations. The PsyBari consists of 115 items, assessed according to their frequency, on a Likert scale (from 1 to 5). This test is divided into 11 subscales: 1) faking good/minimization/denial; 2) surgical motivation; 3) emotional eating; 4) anger; 5) binge eating; 6) obesity-related depression; 7) weight-related impairment; 8) weight-related social impairment; 9) knowledge of postsurgical eating behavior; 10) substance/alcohol abuse; 11) surgical anxiety. The majority of items included in these scales was based on interviews with bariatric patients<sup>14</sup>.

Brazilian developed resources for the psychological assessment of bariatric patients were not found.

#### **Duration of psychological assessment**

Despite the variety of available information concerning the psychological assessment process, including important aspects to evaluate and most used resources, this research did not find references relating to the duration of the preoperative psychological assessment in the international literature. This lack of clarity regarding duration of the psychological assessment generates uncertainty in relation to the number of sessions dedicated for this purpose. However, due to results indicating the necessity of psychological testing and conducting clinical interviews, it is possible to infer that the process demands more than one session.

Amongst Brazilian publications, some allusions regarding the duration of preoperative psychological evaluation were found, suggesting great variability as to the number of sessions, with some authors even mentioning that psychological assessments have been conducted in a single session, or according to the "best judgment" of each professional<sup>13,15,19</sup>. Another reference to time was found in a study showing that 67.4% of patients (after surgery) wanted to be better prepared, psychologically, before the surgery, with more than one session<sup>15</sup>.

#### **Importance of psychological assessment**

The vast majority of reviewed publications addressed the importance of psychological assessment, naming different reasons to justify this process. It is argued that surgery success, in addition to the operation itself, relies on behavioral changes and that one of the goals of the preoperative assessment is to prepare the patient for the postoperative period, aiming to optimize surgical results<sup>1,2,8,9,18,20,21,24</sup>.

Even though one of the publications examined showed that some patients resisted talking to a psychologist prior to surgery, the information discussed during the assessment served not only to evaluate the candidates' preparation for the surgery, but also to increase their chances of success in the adjustment after the surgery<sup>24</sup>. Furthermore, the cited author mentioned that many patients, after the psychological assessment, reported how valuable it was to discuss different issues during the evaluation. Also, a positive experience during the psychological preoperative evaluation "lays the groundwork" for the candidate to seek help in the future in case any difficulties emerge after the surgery<sup>24</sup>.

The previously cited study also states that psychological assessment is a vital process not only to identify possible contraindications for the surgery, but above all, to better understand the patient's motivation, preparation and emotional factors that can impact the adjustment to life after the surgery and the lifestyle changes associated with it<sup>24</sup>.

Corroborating the importance of psychological assessment to bariatric surgery success, Bauchowitz et al.<sup>2</sup> demonstrated that approximately 80% of surgical programs participating in their study considered psychological assessment as "very valuable" or "valuable".

Psychological assessment is also considered a unique opportunity to perform the psychoeducation of the patient about the changes resulting from the surgery, offer psychological support and prepare the candidate for behavioral modifications that must occur in the postoperative period<sup>8,20</sup>. Accordingly, the psychologist has to act in different roles during the assessment: a researcher, collecting data; an educator, providing information; and also, a therapist, increasing motivation and managing emotions that may arise during the evaluation<sup>1,24</sup>.

In contrast to most studies, Pull<sup>21</sup> cited the literature review organized by Ashton et al., in 2008, in which the authors described psychological assessment as a form of prejudice and discrimination against candidates, and stated that there was no evidence to prove its clinical validity. However, Pull challenged this hypothesis presenting four assumptions to justify the importance of psychological assessment and concluded with the suggestion that this process continues to be a part of the general preoperative evaluations that precede bariatric surgery<sup>21</sup>. It was noted that Ashton's review was the only one found in the literature attributing a negative connotation to psychological assessment.

As well as highlighting the importance of psychological assessment for surgery success and patient's well-being, the references also specified the importance of the qualification of the psychologist in regards to the performance of the assessment. Due to peculiarities of the bariatric population, researchers suggest that mental health professionals who are in charge of psychological assessments must have expertise in the field of medical psychology. Only appropriately qualified professionals would be able to detect if a patient had a problematic relation with food and, also, work with cognitive distortions that the candidate may display, in regards to weight loss and the psychosocial impact of the surgery<sup>2</sup>.

#### **Lack of protocols for psychological assessment**

A recurrent topic, found in the majority of publications examined, refers to the fact that there are no guidelines or protocols to orientate the psychological assessment for bariatric surgery<sup>2,5,8,14,21,24</sup>. The absence of a standard protocol hinders the identification of which domains deserve attention and which evaluative procedures should be employed by psychologists<sup>5</sup>. Furthermore, without a standardization of practices, the value and purpose of psychological assessment is subject to variation according to each professional or bariatric team<sup>21</sup>. As a consequence, a great variability is generated in regards to the approaches used during the assessment and there is little consent on how to conduct the triage and which criteria should be observed during patient selection<sup>2</sup>.

Amongst Brazilian publications, two references concerning protocols for bariatric surgery were found. The first one describes the creation of software called "Multiprofessional Electronic Protocol", developed at the Universidade Federal do Paraná. Through this software it is possible to register information about bariatric candidates, collected during their assessments in the areas of Medicine, Nutrition, Psychology and Physiotherapy<sup>16</sup>.

The second publication illustrates a study organized by Felix et al.<sup>7</sup>, in Paraíba. According to this article, after a literature review, the team developed a "Nursing care protocol to the patient before and after bariatric surgery". This protocol consists of a program designed to provide nursing assistance for bariatric patients and it is divided in 11 requirements. The aim of the protocol is to guide nurses in the implementation of their duties<sup>7</sup>.

Nevertheless, despite the identification of two protocols associated with bariatric surgery, none of them relates directly to psychological assessment, as they were created to register information collected by the multidisciplinary team, or to guide nursing practices in the care of bariatric patients respectively.

## CONCLUSIONS

It is crucial that all candidates for bariatric surgery undergo a thorough clinical evaluation, as well as a comprehensive psychological assessment to decrease the impact of complications that may emerge after the surgery and diminish the risk assumed by patients and professionals involved in this process.

The psychologist performing the assessment for bariatric surgery has an obligation to investigate different aspects of the patient's life, not only to determine their readiness for the procedure, but also to educate them in regards to the changes related to the surgery. The resources employed for this purpose are largely disclosed and discussed in the literature. However, the majority of tools used overseas is not approved for implementation in Brazil.

There is a consensus concerning most of the contraindications of the surgery. The only aspect generating doubt is binge eating, a topic that divides the opinion of researchers. The duration of psychological assessment needs to be clarified, as there were no explicit references to the average time invested in this process.

In the matter of the importance of psychological assessment, the results found demonstrated that there are no doubts about the value and validity of this process for surgery success. However, the absence of a standard protocol produces a variety of formats for the assessment. Without a protocol to be followed, there is no consistency as to the central aspects of the evaluation, its duration, which resources to employ, what to evaluate, who to involve in the process, which contraindications are absolute, and other aspects.

It is important to highlight the example of the protocol created in Paraíba, for nurses, considering that in the same way psychologists should develop a protocol to guide the performance of the professionals in the field in regards to patient care. It is necessary to continue researching this topic in order to create a model of psychological assessment focused on the relevant and peculiar universe of bariatric surgery.

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