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# Evaluation of the social demographic and clinical profile of patients candidate for bariatric surgery

Evaluación del perfil social demográfico y clínico de pacientes candidatos a cirugía bariátrica

Avaliação do perfil sociodemográfico e clínico de pacientes candidatos à cirurgia bariátrica

## ABSTRACT

**Objective:** to evaluate the sociodemographic and clinical profile of patients who are candidates for bariatric surgery. **Method:** a descriptive and cross-sectional study, carried out with candidates to the bariatric surgery process in a hospital in Recife, Pernambuco, through individual interviews. The sample consisted of 120 individuals. Descriptive statistics was applied for data analysis. **Results:** the profile found was made up of female patients (78.3%), white (56.7%), single (50.0%), with a mean age of 35.8 years and a weight of 126, 6 kg. The use of weight loss medications before surgery occurred in 79.2% of the participants and the use of a diet for weight control in 98.3%. At least one comorbidity was observed in 89.1% of the patients, the main ones being hepatic steatosis, low back pain and arterial hypertension. **Conclusion:** most patients had risk factors for obesity and sought surgery for health reasons, after trying non-surgical methods.

**DESCRIPTORS:** Bariatric Surgery; Obesity; Nursing.

## RESUMEN

**Objetivo:** evaluar el perfil sociodemográfico y clínico de los pacientes candidatos a cirugía bariátrica. **Método:** estudio descriptivo y transversal, realizado con candidatos al proceso de cirugía bariátrica en un hospital de Recife, Pernambuco, mediante entrevistas individuales. La muestra estuvo formada por 120 individuos. Se aplicó estadística descriptiva para el análisis de datos. **Resultados:** el perfil encontrado estuvo conformado por pacientes del sexo femenino (78,3%), blancas (56,7%), solteras (50,0%), con una edad media de 35,8 años y un peso de 126,6 kg. El uso de medicamentos para adelgazar antes de la cirugía ocurrió en el 79,2% de los participantes y el uso de una dieta para el control del peso en el 98,3%. Se encontró al menos una comorbilidad en el 89,1% de los pacientes, siendo las principales esteatosis hepática, lumbalgia e hipertensión arterial. **Conclusión:** la mayoría de los pacientes presentaba factores de riesgo de obesidad y acudió a cirugía por motivos de salud, tras probar métodos no quirúrgicos.

**DESCRIPTORES:** Cirugía bariátrica; Obesidad; Enfermería.

## RESUMO

**Objetivo:** avaliar o perfil sociodemográfico e clínico de pacientes candidatos à cirurgia bariátrica. **Método:** estudo descritivo e transversal, realizado com candidatos ao processo de cirurgia bariátrica em hospital do Recife, Pernambuco, por meio de entrevista individual. A amostra foi composta por 120 indivíduos. Aplicou-se estatística descritiva para análise dos dados. **Resultados:** o perfil encontrado foi de pacientes do sexo feminino (78,3%), de cor branca (56,7%), solteiros (50,0%), com média de idade de 35,8 anos e peso de 126,6 quilogramas. O uso de medicamentos para emagrecimento antes da cirurgia ocorreu em 79,2% dos participantes e a realização de dieta para controle de peso em 98,3%. Foi evidenciada pelo menos uma comorbidade em 89,1% dos pacientes, sendo as principais esteatose hepática, lombalgia e hipertensão arterial. **Conclusão:** a maioria dos pacientes possuía fatores de risco para a obesidade e buscaram a cirurgia por motivos de saúde, após a tentativa de métodos não cirúrgicos.

**DESCRIPTORES:** Cirurgia bariátrica; Obesidade; Enfermagem.

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**INTRODUCTION**

**O**besity, due to its high incidence, is considered a public health problem. It is classified as a disease that develops from excess body fat and may result from metabolic, genetic, social, cultural and behavioral factors.<sup>1</sup> In addition, it causes a nutritional disorder with high morbidity and lethality, which can affect the entire human body system.<sup>2</sup>

Weight control brings numerous health benefits and is ideal to help reduce overweight-related illnesses.<sup>3</sup> When this nutritional problem is not achieved naturally, people look for clinical and surgical treatments, the latter being more sought after for having greater and faster efficacy in the results compared to conventional clinical treatment.<sup>2,4</sup>

The therapeutic indication for bariatric surgery must be performed with multidisciplinary follow-up, as the success of the treatment depends on changes in lifestyle and emotional balance.<sup>5</sup> The simplest, low-cost, quick and accessible method to define treatment is the assessment of anthropometric measurements, which are used to analyze nutritional status.<sup>6,7</sup> Individuals with Body Mass Index (BMI)  $\geq 40$  kg/m<sup>2</sup> and those with BMI  $\geq 35$  kg/m<sup>2</sup> associated with diseases correlated to excessive weight are indicated for gastroplasty.<sup>3</sup>

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Bariatric surgery is considered effective in treating severely obese patients. According to the National Supplementary Health Agency (ANS - Agência Nacional de Saúde), in addition to BMI, it is also an assessed criterion for performing the surgical procedure in private health care plans, being aged between 18 and 65 years, having failed clinical treatment for at least two years old and morbidly obese for more than five years. It is also necessary that it is

not a decompensated psychiatric patient at risk for suicide and a user of alcohol or illicit drugs in the last five years.<sup>9</sup>

When conventional means are not enough to achieve the desired result, it becomes common to consider bariatric surgery. The process brings drastic changes in behavioral and social habits, leaving the individual's self-esteem vulnerable and bringing major dietary changes, which is why pre- and postoperative follow-up by the nursing staff is necessary.<sup>10</sup>

Given the above, this study aimed to evaluate the sociodemographic and clinical profile of patients who are candidates for undergoing bariatric surgery, in order to support interventions for advanced nursing practice for this audience.

**METHOD**

This is a descriptive, quantitative, cross-sectional study, carried out between the months of October and November 2020 in a private hospital in the city of Recife, Pernambuco, Brazil. The service was chosen because of the local representation of multidisciplinary care and the demand of patients seeking the procedure under study. The population was characterized by patients who are candidates for bariatric surgery, whose non-probabilistic sam-

Table 1 – Sociodemographic characteristics of patients eligible for bariatric surgery. Recife, Pernambuco, Brazil, 2020

VARIABLES	N	%
<b>Sex</b>		
Female	94,0	78,3
Male	26,0	21,7
<b>Ethnicity</b>		
White	68,0	56,7
Black	21,0	17,5
Brown	31,0	25,8
<b>Education</b>		
Complete Elementary School	1,0	0,8
Incomplete High School	3,0	2,5
Complete High School	41,0	34,2
Incomplete Higher Education	28,0	23,3
Complete Higher education	47,0	39,2
<b>Marital Status</b>		
Married/Stable Union	53,0	44,2
Single	60,0	50,0
Divorced	7,0	5,8
<b>Occupational Status</b>		
Employed	70,0	58,3
Unemployed	41,0	34,2
Student	5,0	4,2
Retired	4,0	3,3
<b>Dwelling house</b>		
Own House	98,0	81,7
Rented	22,0	18,3
<b>Members of the family</b>		
Lives with family	116,0	96,7
Lives alone	4,0	3,3
Total	120,0	100,0

Source: the authors, 2020.

Table 2 – Clinical characteristics of patients who are candidates for bariatric surgery. Recife, Pernambuco, Brazil, 2020.

VARIÁVEIS	N	%
<b>Grau de Obesidade</b>		
Obesidade Grau II	17,0	14,2
Obesidade Grau III	103,0	85,8
<b>Uso de Medicamentos para emagrecer</b>		
Sim	95,0	79,2
Não	25,0	20,8

pling process for convenience included a finite sample calculation for the population, resulting in 120 patients, with a sampling error of 5% and a confidence level of 90%.

The inclusion criteria used were: patients aged 18 years or over, of both genders, with obesity equal to or above grade II, and those with established obesity with unsatisfactory previous medical treatment. Those who had any communication barriers that prevented the interviews were excluded.

Data collection took place upon admission of the patient to the preoperative period. The beginning of the care with the multidisciplinary team happens through the nursing consultation, where the patient is admitted and the criteria for the preoperative period of bariatric surgery are evaluated, such as the degree of obesity, previous treatment and emotional condition.

The interviews took place in the nursing office, individually, being guided by a semi-structured questionnaire authored by the researchers. Patients who agreed to participate signed the Informed Consent Form. The study complied with the ethical precepts regulated by Resolution 466/12, being approved by the Ethics Committee of the University of Pernambuco HUOC/PROCAPE under Opinion number 4.337.541 and CAAE 37826620.1.0000.5192.

Data were tabulated in the Microsoft Office Excel® spreadsheet editor and transported to the Statistical Package for Social Sciences (SPSS) software, version 21.0, where they were analyzed by the researchers using simple descriptive statistics with calculation of absolute and relative frequencies for categorical variables and measures of position and dispersion for continuous variables.

## RESULTS

The study included 120 patients with clinical indication to be admitted to the preoperative process of bariatric

Dieting for weight control		
Yes	118,0	98,3
No	2,0	1,7
Diet monitoring		
With nutritionist	103	87,3
On its own	15	12,7
Physical Activity Practice		
Yes	40,0	33,3
No	80,0	66,7
Alcohol consumption		
Yes	47	39,2
No	73	60,8
Tobacco use		
Yes	6,0	5,0
No	114,0	95,0
Total	120,0	100,0

Source: authors, 2020.

surgery. Table 1 shows the sociodemographic profile of the individuals included in the survey.

The prevalence of patients regarding gender was female (78,3%) and white (56,7%). It can be seen that most were single (50,0%), with educational instruction in Higher Education (39,2%) and employed (58,3%). In addition, 81,7% had their own house and 96,7% lived in these houses with their families. The average age group, for both sexes, was 35,8 years. Table 2 summarizes the clinical data found in this investigation.

It was found that 85,8% of patients had grade III obesity and that the majority (79,2%) had already used drugs to lose weight. Of the total number of respondents, more than 98% were on a diet for weight control, with the majority (87,3%) being accompanied by a nutritionist. As for daily living conditions, it was identified that most patients did not exercise (66,7%) and did not use alcohol (60,8%) and tobacco (95,0%). Table 3 shows information about the preoperative health status of the interviewed patients.

It was possible to identify that most patients (75,8%) tried other procedures before seeking surgical intervention and had health needs. The mean age at which patients started obesity was 22,1 years. Added to this, the presence of several pathologies was noticed, such as diabetes, hypertension, hepatic steatosis and low back pain, in addition to eating disorders, depressed mood and anxiety.

## DISCUSSION

The results pointed to a sociodemographic and clinical profile of patients with good living conditions, but not free from risk factors for obesity. Some data from the study, such as gender, were similar to studies carried out in other regions of Brazil.<sup>3,5</sup> It is believed that the fact that the female sex prevails in the search for weight loss may be associated with the pressure imposed by

Table 3 – Pre-existing clinical conditions of patients who are candidates for bariatric surgery. Recife, Pernambuco, Brazil, 2020.

VARIABLES	N	%
<b>Reasons to perform bariatric surgery</b>		
Tried other procedures without success	9,0	7,5
Tried other procedures without success and health need	91,0	75,8
Tried other procedures without success, need for health and aesthetics	20,0	16,7
<b>Diabetes Mellitus</b>		
Yes	35,0	29,2
No	85,0	70,8
<b>Systemic Arterial Hypertension</b>		
Yes	49,0	40,8
No	71,0	59,2
<b>Hepatic steatosis</b>		
Yes	52,0	43,3
No	68,0	56,7
<b>Backache</b>		
Yes	51,0	42,5
No	69,0	57,5
<b>Presence of Eating Disorders</b>		
Yes, but recovered	11,0	9,2
Yes, still undergoing treatment	11,0	9,2
No	98,0	81,6

## Depressed Mood

Yes	30,0	25,0
No	90,0	75,0
Anxiety		
Yes	79,0	65,8
No	41,0	34,2
Total	120,0	100,0

Source: authors, 2020.

society that, to be considered beautiful, a woman must have a thin body.<sup>14</sup> Unlike women, men's search for weight loss tends to arise when there is difficulty in performing daily activities.<sup>3</sup>

The prevalence of white color among the participants may be associated with the purchasing power of this population, which facilitates access to private health units, such as the one in which the research was conducted.<sup>16</sup> Regarding marital status, this investigation differs from another study, which shows most candidates for bariatric surgery as married.<sup>16,17</sup> This number may be related to the fact that obese people, for not being able to meet the media's expectations regarding the perfect body, feel insecure and consequently develop difficulty in achieving pleasure in social interaction and in building relationships.<sup>18</sup>

Bariatric surgery can provide patients with a reduction in morbidity and mortality rates, which explains the great demand for the procedure,<sup>16</sup> unveiled in the main reason for choosing the procedure in this research. The average weight found was 126,6kg and the height was 1,65m. Thus, it is possible to infer that the BMI had an average of 46,3 (grade III obesity), which is already at a very high level of body fat. In this condition, patients are already affected by other comorbidities and are highly likely candidates for the surgical procedure, considering that bariatric is the most effective treatment for grade III obesity.<sup>16</sup>

The results showed that most respondents were overweight at an early stage of life. This factor is associated

with the risk of developing and continuing obesity in adulthood. To prevent this occurrence, it is necessary for nurses to invest in interventions focused on food re-education and encouragement of healthy habits during the school period, thus, possibly the healthy habits learned during this age group will be transferred to adulthood, thus decreasing the chance of developing obesity.<sup>20</sup>

## Bariatric surgery can provide patients with a reduction in morbidity and mortality rates, which explains the great demand for the procedure

In patients who are candidates for bariatric surgery, the ideal is for the nurse to count on the help of a nutritionist to monitor the diet, so that

individuals will be better prepared to accept food in the postoperative period.<sup>23-24</sup> A study points out that pharmacological treatment helps the patient to lose weight, but the effectiveness of the medication for a period longer than two years is not fully established.<sup>15</sup>

The practice of physical activity is essential for weight loss and helps to improve quality of life. A survey conducted at the Obesity and Digestive System Surgery Clinic of Santa Maria-RS reported that 69% of candidates for surgery performed physical activity. This can be explained by the preoperative monitoring by a multidisciplinary team, which encourages the patient to practice.<sup>15</sup>

Some comorbidities have been noticed in patients undergoing surgery. According to the literature, depression is the psychiatric disorder that is most related to morbid obesity.<sup>16</sup> As found in the present study, anxiety also appears in other studies, where obese individuals, mainly females, are more likely to develop anxiety disorders when compared to individuals with BMI within the parameters considered normal.<sup>21</sup> Authors claim that patients with obesity can use food as an outlet to fill emotional voids.<sup>18</sup>

In addition to emotional illnesses, candidates for bariatric surgery have pre-existing illnesses that are important for directing care, so they must be well evaluated by the nurse.<sup>3</sup> In this investigation, comorbidities related to weight were identified, such as diabetes, dyslipidemias, obstructive sleep apnea, degenerative musculoskeletal diseases, arterial hypertension, hepatic steatosis and low back pain, the last three being most frequently reported, unlike other studies, where hypertension and diabetes have higher results.<sup>22</sup>

## CONCLUSION

It was possible to show that most patients seek to undergo bariatric surgery for health needs, after unsuccessful at-

tempts of non-surgical methods, since they have physical and psychological pathologies, in addition to having impaired social relationships. Many of the study participants started obesity in childhood and spent their lives in

clinical treatment, dieting and taking medications to reduce weight, however, without favorable results. The sociodemographic and clinical assessment of such patients is necessary as it allows nurses to know and design effective

strategies according to the main needs of the surgical client in the perioperative period, so that they do not develop complications during the surgical procedure or in the postoperative period of bariatric surgery. ■

## REFERENCES

- Oliveira LSF, Mazino Filho ML, Castro JBP, Touguinha HM, Silva PCR, Ferreira MEC. Repercussões da cirurgia bariátrica na qualidade de vida, no perfil bioquímico e na pressão arterial de pacientes com obesidade mórbida. *Fisioterapia e pesquisa*. 2018;25:284-293.
- Silvério AO, Rebelo BRR, Prudente CA, Martins COM, Oliveira PMC, Cardoso DMM, et al. Balão intragástrico como tratamento ponte para a cirurgia bariátrica. *GED gastroenterol. endosc. dig*. 2017; 36 (3):109-114.
- Castanha CR, Ferraz AAB, TCBC-PE, Castanha AR, Belo GQMB, Lacerda RMR, et al. Avaliação da qualidade de vida, perda de peso e comorbidades de pacientes submetidos à cirurgia bariátrica. *RevColBras Cir*. 2018;45(3):1-9.
- Querido JD, Aguiar LR, Justino MP, Faria SO, Silva RR, Grasselli CSM. Estado nutricional antropométrico e comorbidades associadas à síndrome metabólica em mulheres submetidas à cirurgia bariátrica. *Sci Med*. 2016 Outubro;26(3):1-7.
- Rêgo AS, Zulin A, Scolari S, Marcon SS, Radovanovic CAT. Análise das condições clínicas de pessoas obesas em período pré e pós-operatório de cirurgia bariátrica. *Rev. Col. Bras. Cir*. 2017;44(2):171-178.
- Medeiros KF, Silva ALS, Fernandes ACCF, Martins MCC. Composição corporal e avaliação antropométrica de adultos. *Revenferm UFPE online*. 2015;9(Supl. 10):1453-1460.
- Fernandez M, Toimil RF, Rasslan Z, Ilias EJ, Gradinar ALT, Malheiros CA. Avaliação da gordura corporal em pacientes obesas no pré-operatório de cirurgia bariátrica. *ABCD ArqBrasCirDig*. 2016;29(Supl.1):59-61
- Barros LM, Moreira RAN, Frota NM, Araújo TM, Caetano JA. Qualidade de vida entre obesos mórbidos e pacientes submetidos à cirurgia bariátrica. *Rev.Eletr.Enf*. 2015 Abr-Jun;17(2):312-21.
- Cobertura: gastroplastia (cirurgia bariátrica) por videolaparoscopia ou via laparotômica. Agência Nacional de Saúde Suplementar. 2019 May 17;
- Justino YAC, Tatagiba TMB, Pogian LP, Pimentel FC. Modificações comportamentais entre o pré e o pós-operatório de pacientes bariátricos. *Psicologia em Revista*. 2018 Agosto;24:577-599.
- Elias AA, TCBC-SP, Oliveira MR, Campos JM, TCBC-PE, Sasake WT, et al. Cirurgia bariátrica robótico-assistida: análise de série de casos e comparação com via laparoscópica. *RevColBras Cir*. 2018;45(3):1-9.
- Chaim EA, Pareja JC, Gestic MA, Utrini MP, Cazzo E. Preoperativemultidisciplinaryprogram for bariatricsurgery: a proposal for theBrazilianPublic Health System. *ArqGastroenterol*. 2017;54:70-74.
- Barros LM, Moreira RAN, Frota NM, Caetano JA. Identificação dos diagnósticos de enfermagem da classe de respostas cardiovasculares/pulmonares em pacientes submetidos à cirurgia bariátrica. *Aquichan*. 2015 Junho;15:200-209.
- Oliveira DM, Merighi MAB, Jesus MCP. A decisão da mulher obesa pela cirurgia bariátrica à luz da fenomenologia social. *Rev Esc Enferm USP*. 2014 Oct 14;48(6):970-976.
- Silva PT, Patias LD, Alvarez GC, Kirsten VR, Colpo E, Moraes CMB. PERFIL DE PACIENTES QUE BUSCAM A CIRURGIA BARIÁTRICA. *ABCD Arq Bras Cir Dig*. 2015;28(4):270-273.
- Araújo GB, Brito APSO, Mainardi CR, Martins Neto ES, Centeno DM, Brito MVH. Perfil clínico-epidemiológico de pacientes submetidos à cirurgia bariátrica. Araújo et al. *Para Res Med*. 2018;1(4):1-8.
- Barros LM, Brandão MGSA, Ximenes MAM, Fontenele NAO, Caetano JA. Perfil clínico-epidemiológico de pacientes adultos em fila de espera para cirurgia bariátrica. *Revista enfermagem atual in derme*. 2019;88(26):1-9.
- De Lima ACR, Oliveira AB. Fatores psicológicos da obesidade e alguns apontamentos sobre a terapia cognitivo-comportamental. *Mudanças-Psicologia da Saúde*. 2016;24(1):1-16.
- Scherer A, Moré C, Motta C, Coradini A, De Farias R. Rede social significativa e de suporte social: impacto no tratamento bariátrico. *Psicologia, Saúde & Doenças*. 2019;20(3):630-650.
- Quesada K, Detregiachi CRP, Barbalho SM, Oliveira MRM, Rasesa I, Vaz EC, Goulart RA. PERFIL SOCIOECONÔMICO E ANTROPOMÉTRICO DE CANDIDATAS À CIRURGIA BARIÁTRICA PELO SISTEMA ÚNICO DE SAÚDE. *Revista Saúde e Pesquisa*. 2015;8(3):431-438.
- Andric JT, Méa CPD, Ferreira VRT, Vesco JAD, Vesco AIAD. Sintomas de ansiedade em pacientes pré-cirurgia bariátrica: um estudo comparativo. *Contextos Clínicos*. 2019;12:779-795.
- Oliveira RMM, Passos XS, Marques MS. Perfil do indivíduo candidato à cirurgia bariátrica no Hospital Geral de Goiânia-GO. *J Health Sci Inst*. 2015;31(2):172-175.
- Ades L, Kerbauy RR. Obesidade: realidades e indagações. *Psicologia USP*. 2002;13(1):197-216.
- Silveira MS, Oliveira TM, Oliveira AS, Santos DTS, Menezes RR, Lima ML. Conhecimento nutricional entre mulheres obesas e eutróficas atendidas em uma unidade ambulatorial de saúde: classificação e comparação entre os grupos. *SaudColetiv*. 2020; 10(59):4298-313.