ORIGINAL ARTICLE

EXPERIENCE OF MORBID OBESE INDIVIDUAL SUBMITTED TO BARIATRIC SURGERY

Vivência do obeso mórbido submetido à cirurgia bariátrica Experiencia de obesidad mórbida que la cirugía bariátrica

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ABSTRACT: Objective: To understand the experience of the morbidly obese patients undergoing bariatric surgery. **Method:** We opted for the existential phenomenology as a reference of Martin Heidegger. Ten people who were registered in the bariatric surgery service of a teaching hospital in Maceió, Alagoas, were interviewed from March to November 2011. **Results:** From the discourses, four categories were formed that constitute the elements of the experience: requiring surgery, preparing for surgery, experiencing the prospect of surgery, and awakening to a new life. **Conclusion:** We conclude that the experience is permeated by a difficult process. Hence, it becomes imperative that a comprehensive assistance is given to the individuals throughout the process of bariatric surgery so they can overcome possible complications until the conquest of a new life. **KEYWORDS:** Nursing. Morbid obesity. Bariatric surgery.

RESUMO: Objetivo: Este estudo teve como objetivo compreender a vivência do obeso mórbido submetido à cirurgia bariátrica. **Método:** Optou-se pela fenomenologia existencial como referencial de Martin Heidegger. Foram entrevistados dez sujeitos, de março a novembro de 2011, inscritos no serviço de cirurgia bariátrica de um hospital de ensino em Maceió, Alagoas. **Resultados:** Dos discursos, emergiram quatro categorias que constituíram os elementos da vivência: Necessitando da cirurgia; Preparando-se para a cirurgia; Vivenciando a perspectiva da cirurgia; Despertando para uma nova vida. **Conclusão:** Conclui-se, portanto, que a vivência é permeada por um processo difícil. Torna-se, então, fundamental uma assistência integral durante todo o processo da cirurgia bariátrica para a superação das possíveis complicações até a conquista de uma nova vida.

PALAVRAS-CHAVE: Enfermagem. Obesidade mórbida. Cirurgia bariátrica.

RESUMEN: Objetivo: Este estudio tuvo como objetivo comprender la experiencia de los obesos mórbidos. Método: Optamos por la fenomenología existencial como una referencia a Martin Heidegger. Diez personas fueron entrevistadas entre marzo y noviembre de 2011, ingresó en el servicio de cirugía bariátrica de un hospital universitario en Maceió, Alagoas. **Resultados:** De los discursos, las categorías se constituyeron elementos de la experiencia: Exigir la cirugía; Preparación para la cirugía; Experimentar la perspectiva de la cirugía; El despertar a una nueva vida. **Conclusión:** Se concluye, por tanto, que la experiencia está permeado por un proceso difícil, por lo tanto, se vuelve imperativo que una asistencia integral en todo el proceso de la cirugía bariátrica para superar las posibles complicaciones hasta la conquista de una nueva vida.

PALABRAS CLAVE: Enfermería. Obesidad Mórbida. Cirugía Bariátrica.

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INTRODUCTION

Currently, half a million people (equivalent to 12% of world population) are considered obese — according to the World Health Statistics 2012 report, prepared by the World Health Organization¹. In Brazil, obesity affects much of the population as a result of poor eating habits and sedentary lifestyle. Consequently, in the last 6 years, the proportion of obese increased from 11.4% in 2006 to 15.8% in 2011².

On the basis of the nutritional standards of the Brazilian population in the past few years, obesity has become a public health problem. To facilitate the treatment of patients with morbid obesity, bariatric surgery was regulated under the Unified Health System (SUS) by Ordinance No. 628/GM of April 26, 2001^3 .

Bariatric surgery is considered the most effective treatment for obesity class II and III by altering the anatomy and physiology of the digestive tract. However, side effects may occur in the postoperative period as a result of nutritional deficiencies, reduced gastric capacity, and alterations in nutrient absorption along the gastrointestinal tract. Despite the changes, the main objectives of bariatric surgery are to offer low risk, reduce excess weight superior than 50% in the long term in at least 75% morbidly obese patients, improve quality of life with few side effects, lower reoperation rate for less than 2 years, and being reversible and reproducible⁴.

Monitoring the morbidly obese patients submitted to bariatric surgery process is responsibility of the multiprofessional health-care team of highly complex care unit, following the guidelines established by Ordinance No. 492 of August 31, 2007⁵.

The morbidly obese patients require meticulous preparation in the perioperative, from the decision-making to undergo surgical treatment to the follow-up assessment in the clinical setting or domicile after surgery, as this treatment is characterized by great physical and psychological changes, which often generate feelings of uncertainty and frailty⁶.

This preparation should also be offered by primary care professionals, which have an important role in the process. It is essential to maintain the link with the professionals of specialized care to improve the provision of care for morbidly obese patients submitted to bariatric surgery. During the preoperative period, teams must offer support to the individual and their families, especially regarding food discipline,

counseling, and support for preparation for surgery. This care should be maintained in the postoperative phase for the full and gradual recovery of digestive function⁷.

The role of nursing is essential while taking care of education, assistance, and management functions. Therefore, studies have been conducted with the intention of improving the quality of care, which requires a differentiated nursing care. In regard to the perioperative period, the need to supply difficulties related to physical space, materials, and equipment is identified as relevant⁸, as well as specific nursing care for morbidly obese patients that goes beyond the techniques and procedures for the operation, involving particularities⁹. Authors stated that still greater commitment is necessary to carry out studies related to morbidly obese patients submitted to bariatric surgery⁸⁻¹¹.

This study aimed to provide a better understanding of the process of bariatric surgery, from the own experience of the morbidly obese patients. The relevance focuses on the fact that it enables reflections on the unveiled phenomenon, awakening another look in care practice when treating a morbidly obese patient.

METHOD

For this study, we chose the qualitative research based on phenomenology. To investigate and understand the morbidly obese, without prejudice or theories, but as a concrete experience and conscious subject, we used an approach to the philosophical framework of Martin Heidegger, whose central issue was the search of the meaning of being, to support the analysis¹². For a better understanding and to show what is hidden in their experience, it is necessary that the researchers' attention turns to the description of the morbidly obese experience exactly as it is.

The study was conducted from March to November 2011 in the morbidly obese care clinic accredited as high complexity care unit of a teaching hospital in the city of Maceió, Alagoas.

According to the ethical and legal principles in force under Resolution no 466/12, the study was authorized by the institution's educational superintendence and approved by the Research Ethics Committee of Universidade Federal de Alagoas, under the Protocol no 004590/2011-51.

Ten subjects who had previously been submitted to the preoperative, perioperative, and postoperative of a bariatric surgery at this institution participated in this study. They were interviewed in the late postoperative period, during which they participated in the multiprofessional outpatient treatment at the bariatric surgery service of the hospital. The number of participants was determined during the analysis of the reports, from the moment that the researchers' concerns were answered and the purpose of the study achieved.

The interviews were scheduled and held in a quiet place. The subjects were informed about the purpose of the study, anonymity, and the possibility of refusal, as well as the intention of publishing the study results in the academic area. They also had the right to withdraw from the research at any moment. After the explanation, we requested the signature of the Term of Consent (IC). All were coded under the letter S, followed by the numbers in ascending order, before beginning the transcripts.

The interviews were recorded and transcribed, guided by the following question: how was it for you to experience the bariatric surgery, from the beginning to the present day?

To capture the fullness expressed by the subjects in their statements, we used procedures recommended by the phenomenological method and humanities. First, we did an attentive reading of each of the speeches, based on the feelings shown by the students themselves and the factual elements of the world they were inserted in. Once grasped the meaning of each description, we turned to the individual statements, now seeking the meaning units, focusing on the experiences of the morbidly obese patients. Then the most relevant meaning units were phenomenologically selected to make a prior categorization. In the last step, the meaning units were grouped and related, building the themes analyzed in this study, which unveiled the experiences of the morbidly obese patients submitted to bariatric surgery¹³.

To characterize the study subjects, we collected information that allowed us to identify that 90% were women and had a mean age of 45 years; therefore, most were women classified as young adults. Regarding marital status, 20% were single, 20% were widowed, and 60% were married. Importantly, 70% had a family income of approximately two minimum wages, 20% of one minimum wage, and 10% of

five minimum wages, which exposes their low economic status. Regarding education of the subjects, 10% had incomplete primary education, 20% complete primary education, 20% incomplete secondary school, 40% complete secondary school, and 10% complete higher education.

RESULTS

Requiring surgery

It was discovered that the beginning of the trajectory was characterized by several attempts aiming weight loss, highlighting the nutritional education and medical methods. Hence, the implementation of persistent individual efforts in the pursuit of overcoming obesity is noticeable. In this context, the patients experience frustration in achieving the desired goal because they needed a significant weight loss, which was unattainable:

I went through a long process of diets. I tried to lose weight, but I couldn't (S1).

I had already made several attempts, gone on diets, lost weight, taken medicines and when I stopped [...] (S2).

It is evident that even experiencing a dietary and pharmacological treatment, the difficulty of weight loss maintenance generated fatigue and discouragement, gradually leading to the abandonment of such methods.

We noted that the constant recurrence of weight gain and the acceptance of defeat preceded and contributed to the decision-making of bariatric surgery:

[...] I could lose weight, but within a year I would gain it all over again, this was one of the reasons why I decided to have the surgery (S3).

The morbidly obese patients reveal having awareness of the possibility of the comorbidities associated with obesity. Restricting common activities of daily life such as walking was also an important factor for making the decision to undergo bariatric surgery: My goal was to have surgery, I could not stand it anymore. I couldn't even walk, I couldn't do almost anything (S6).

I needed to do it, I had bone problems because I was overweight, it was the only disease I had and it was getting worse, that's what brought me here (S9).

We observed that the need presented by the study subjects was weight loss to reduce comorbidities and provide greater autonomy in activities of daily life.

Bariatric surgery started to be seen as a tool to enable them. Therefore, the claims for bariatric surgery led to the assertion that the demand is given as the last option for the treatment of obesity, and is recognized as essential to be healthy:

[...] then I started to see that it was necessary to operate, I needed this surgery and I was not there by chance or vanity, I needed it (S4).

In this way, individual factors leading to the decision of bariatric surgery as a resource for weight loss were presented. The quest for an improved health status contributed significantly to the recognition of the needs of surgical treatment. In this quest, patients go through rich life experiences until they are able, as it is described in the next category.

Preparing for surgery

In discourse analysis, it was possible to identify that the bariatric surgery service is characterized by a multiprofessional follow-up, providing a trust and well-developed relationship, as well as an elaborate bond with the morbidly obese patients, which contributes significantly with the preoperative preparation as well as facilitates the postoperative:

- [...] as part of the program, I started receiving nutritionists, psychologists, anesthesiologists, cardiologists, endocrinologists. I believe that I became 80% prepared and it was much easier (S5).
- [...] Here we have a good follow-up that helps you accept the postoperative (S3).

In the support group meetings with professionals, they experienced moments of listening, encouragement, exchange of experiences, discoveries, acceptance of obesity, and formed bonds that provided a sense of mutual trust, which contributed positively in subsequent moments of the treatment.

- [...] when we enter the group, we are already consider it a family. We can count on the professionals, on the colleagues. We listen to the problems of each other, there is a relief, we feel very well (S2).
- [...] it helps us very much to see ourselves as obese. With the professionals monitoring, I managed to set foot on the ground (S3).

In this occasion, health education actions are provided and facilitate the orientation of the surgical process experienced, so patients can understand the meaning of each phase they went through. Thus, the acceptance and understanding of the risks, benefits, and even symptoms associated with surgery were facilitated by these interventions:

[...] we have a meeting where you see the surgery procedure. When we enter the room, we already know what will happen in the postoperative (S4).

You are aware of what you'll do, of the risks that you will take, of the positive and negative parts [...] (S1).

It is unveiled that the assistance provided along with the existing interaction during the support group meetings helps on the absence of complications during the postoperative period, which results in a successful quality of service:

I was called to do the surgical procedure and it was 100%, from the recovery room straight to the apartment, where I was discharged (S5).

During the preoperative preparation of bariatric surgery, the study subjects felt an empathetic relationship that led to an exchange of experiences and expectations with each other. Thus, it was possible to unveil that the interaction established between the study subjects and professionals of health services was a unique opportunity that allowed the practice of individualized care. Bringing people together helped to implement a more humanized assistance.

As a result of the multiprofessional follow-up, we observed the realization of group meetings and the dedication of the morbidly obese patients, essential characteristics for a good preoperative preparation.

The unveiling of this category enabled the understanding of triggered events that were associated with each other, as the importance of multiprofessional monitoring of quality, along with the collaboration of the study subjects, which contributed to the preoperative preparation and thus provided a quiet postoperative period. This presented a positive experience with no complications during the surgical process, which facilitated the perception of the quality of care.

However, even experiencing the surgical preparation with these characteristics, the subjects present a clear anxiety phase, as it is shown in the next category.

Living the perspective of surgery

Through the discourse analysis, first it was possible to unveil that the bariatric surgery has reached the desired objective. Therefore, patients experienced the preoperative stage with great perspective, as shown in the testimonies:

I've waited for those five years with high expectations, and that's what I wanted (S6).

The expectation mentioned earlier raises a sense of anxiety, which can affect the weight loss required during the preoperative period. We noticed that this anxiety was heightened by concerns about the achievement of the desired objective and fear that any individual factor could negatively impact the surgical success.

The only thing I couldn't do was to lose weight before the surgery, because I was anxious, I didn't know if I should go in wearing sandals, flip flops or high heels (S7).

The testimonies showed, through the exchange of experiences in the support groups, that patients have become connoisseurs of possible setbacks during the perioperative stage, and it was clear in their statements that this knowledge also contributed to the emergence of anxiety.

My anxiety was like, "hopefully it won't lack anything"! Because there has been lack of anesthesiologists, lack of clips, lack of rooms, lack of surgeons... (S4).

Anxiety also occurred when the economic aspect in the postoperative period was mentioned, as financial needs were focused and openly discussed in meetings, predisposing to a concern of how this financial process would be during recovery.

[...] I was concerned about finances in the postoperative, because this is a factor that is widely discussed here (S3).

We noticed that anxiety was present during the preoperative period, for bariatric surgery became an objective pursued by the subjects to improve the level of health and quality of life. Thus, the subjects were concerned with aspects related to the perioperative periods, such as lack of material and human resources, and the economic aspects of the postoperative period.

Overcoming this phase did not mean the end of treatment, but the beginning of a new experience.

Awakening to a new life

There were several changes in the postoperative period. In regard to diet, patients reported that the current reality is completely different from what they lived in the past:

I would take a glass of juice and pass out, it was like having a plate of feijoada. (S7).

You go from a plate full of food to 50 ml of something (S10).

The behavioral change related to food generated consequences, which may be seen as beneficial to health or unpleasant and embarrassing:

There are many health benefits (S5).

My appearance changed since I lost weight, I look older (S8).

The patients recognized the changes that bariatric surgery brought to their lives and were aware of the need to adapt to the new self-care habits. In this context, given the new circumstances, they felt prepared to face the adaptation to the new reality:

There's the phase where you have to learn about your limits and know that you can not do what you used to do. You have to limit yourself to a slice of pizza, not three (S1).

Finally, they showed with much excitement that the meaning of bariatric surgery goes well beyond a surgical procedure. It sets up the possibility of a new life, full of important implications for self-esteem, self-fulfillment, independence, freedom, joy, and happiness:

For me it was a benefit because we have self-esteem, we feel better because of the weight loss. Now we start to take better care of ourselves (S1).

[...] since the day I woke up in the infirmary until today it's been a rebirth, a new life of joy and happiness (S8).

With the unveiling of the phenomenon, we noticed that, in fact, bariatric surgery does not mean the end of treatment, but the beginning of a new life, with modifications in routine including new habits such as physical activity and behavioral and dietary changes, which require adaptation to self-care.

Considering that obesity may have a negative impact on the life of the individual, the assertions related to the postoperative period of bariatric surgery lead to the fact that this is a revival phase, permeated by self-esteem and autonomy that will enable the achievement of quality of life.

DISCUSSION

According to the study results, the ineffectiveness of the conservative treatment of obesity is clear because these methods

include diet, exercise, behavioral therapies, and medications that help people with mild-to-moderate obesity. Regarding morbid obesity, the results of clinical treatment showed success rates of less than 10%, with 95% of the obese patients recovering their initial body weight in up to 2 years¹⁴.

In addition, excess weight contributes to the development of comorbidities and hinders body mobility, interfering in the simplest daily activities and leaving the obese patients with a degree of dependence. This involves directly the individual's autonomy, an essential condition for a good quality of life¹⁵.

These factors have a direct influence in the decision-making of the surgery, making the need to submit oneself or not stressful and complex for the morbidly obese and their family, both for possible hazards as for feelings experienced during surgery.

Thus, it is essential that the nursing professional is able to develop care to minimize the fears and anxieties felt in the pre- and postoperative periods. He/she can help positively in stressful situations and reduce the level of anxiety during the surgical process, as he/she is the professional that needs more time with the morbidly obese patients and their family¹⁶. For this purpose, it is necessary that the professional know the patient, both as regard to the conditions for health maintenance as the aspects relating to their physical and psychological conditions¹⁵.

This assistance is of fundamental importance because the surgical patient, in the preoperative period, manifest anxiety regarding the entire surgical process. This anxiety is not a pathological symptom, but a state that allows for privileged access to self-awareness, revealing the search for a new meaning of life; it is an existential problem, not only a biological or behavioral one, which will address the relationship between health and disease through a new look¹².

During the preoperative period of bariatric surgery, when patients experience a relationship of empathy, they stripped out of their "I" to, along with the other, become "we", because they become present and coparticipate in their experiences. The involvement with the other allowed them to share their experiences. Thus, the morbidly obese turned into a "Being-with-the-other" 12.

The interaction established between the study subjects and professionals of health services was perceived as a unique opportunity for the implementation of care practices, aiming the employment of a more humanized care. The operation of group activities provides an environment of mutual learning and growth for the participants¹⁷.

The multiprofessional monitoring involving the morbidly obese individuals forms an essential tripod for a good preoperative preparation. These perceptions corroborate the literature, which states that better results of bariatric surgery are achieved when these individuals receive care from a multidisciplinary team. They provide adequate preoperative preparation, essential to the success of all stages that compounds the surgical process. In addition, the information provided and shared in the preoperative period has shown benefits and positive influences in the individual's response in the postoperative period¹⁸.

The guidance and monitoring of the morbidly obese patients who will experience the surgical process must have preparation for the situations that will be experienced. In this scenario, the nursing professionals play key role in a multi-disciplinary team, as they can provide guidance on the necessary adaptations to the new condition of life, looking at each person in a particular way¹⁹.

Caring is considered the essence of nursing. Thus, it is emphasized that in Heidegger's conception there are two ways to take care: the jump on the other, dominating him/her, manipulating him/her, doing everything for him/her; and jump in front of the other, allowing him/her to assume his/her actions and choices¹². In this process, the nursing professional enables the morbidly obese patient to discover him/herself as a being-with-the-other who is responsible and able to take care of him/herself.

Obesity and overweight can have a negative impact on the quality of life of individuals due to losses in the physical and psychosocial functioning¹⁹. Assertions on the postoperative

period of bariatric surgery lead to the claim that this is a phase of revival, happiness, self-esteem, and autonomy, which provided the achievement of quality of life. After weight loss, there is a sense of enchantment and need for social inclusion, a rebirth invades the existence¹⁶.

FINAL CONSIDERATIONS

Unveiling the phenomenon experienced by the morbidly obese individual who is submitted to bariatric surgery allowed us to realize that, throughout the process, from preoperative preparation to recovery, individual care assumes full relevance.

The experience of the morbidly obese patient is permeated by difficult times, which are gradually overcome in the pursuit of the ideal weight that will provide personal fulfillment and a better quality of life, enabling the integration in social life that was once denied.

So while difficult adjustments and overcoming possible complications in the postoperative period are necessary, the promotion of self-esteem and autonomy shows that the experience of the morbidly obese individual who is submitted to bariatric surgery is considered essentially positive.

We emphasize the satisfaction on learning the unveiled phenomenon in their experience, providing subsidies to make a reflective process in the practice of differentiated nursing care, contemplating the entire context of the obese patient, as well as the motivation for further studies. However, it is worth noting that this analysis in different contexts will not necessarily converge to similar results, although it may enrich its understanding.

REFERENCES

- World Health Organization. World Health Statistics 2012 [Internet]. 2012 [acesso em 2013 abr 11]. Disponível em: http://www.who.int/gho/publications/world_health_statistics/2012/en/
- Brasil. Ministério da Saúde. Vigilância de Fatores de Risco e Proteção para Doenças Crônicas por Inquérito Telefônico. Brasília: Ministério da Saúde, 2011.
- Brasil.Ministério da Saúde. Portaria GM n. 628, de 26 de abril de 2001. Aprova o protocolo de Indicação de Tratamento Cirúrgico da Obesidade Mórbida – Gastroplastia no âmbito do Sistema Único de Saúde – SUS. Brasília: Ministério da Saúde, 2001.
- Blume CA, Boni CC, Casagrande DS, Rizzolli J, Padoin AV, Mottin CC. Nutritional profile of patients before and after Roux-en-Y gastric bypass: 3-year follow-up. Obes Surg. 2012;22(11):1676-85.

- Brasil. Ministério da Saúde. Secretaria de Atenção à Saúde. Portaria 492 de 31 de agosto de 2007: define unidade de assistência de alta complexidade ao paciente portador de obesidade grave. Brasília: Ministério da Saúde, 2007.
- Tenani AC, Pinto MH. A importância do conhecimento do cliente sobre o enfrentamento do tratamento cirúrgico. Arq Ciênc Saúde. 2007;14(2):81-7.
- Brasil. Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Atenção Básica. Estratégias para o cuidado da pessoa com doença crônica: obesidade. Cadernos de Atenção Básica, n. 38. Brasília: Ministério da Saúde, 2014.
- 8. Tanaka DS, Peniche ACG. Perioperative care for morbid obese patient undergoing bariatric surgery: challenges for nurses. Acta Paul Enferm. 2009;22(5):618-23.
- 9. Schmitt MT. Cirurgia da obesidade mórbida: atuação da enfermeira em uma equipe multidisciplinar. Rev SOBECC. 2004;9(4):15-8.
- Rodrigues RT, Lacerda RA, Leite RB, Graziano KU, Padilha KG. [Intraoperative nursing in bariatric surgery: Integrative review]. Rev Esc Enferm USP. 2012;46:138-47. Portuguese.
- 11. Heidegger M. Ser e Tempo. 5ª edição. São Paulo: Vozes; 2011.
- Josgrilberg RS. O método fenomenológico e as ciências humanas.
 In: Castro DSP, Pokladek DD, Azar FP, Piccino JD, Josgrilberg RS, organizadores. Fenomenologia e análise do existir. São Paulo: Sobraphe; 2000. p. 75-93.

- 13. Kelles SMB. Cirurgia bariátrica: mortalidade, utilização de serviços e custos. Estudo de caso em uma grande operadora do sistema de saúde suplementar no Brasil [dissertação]. Minas Gerais: Universidade Federal de Minas Gerais, 2009.
- 14. Agra G, Henriques MERM. Vivência de mulheres que se submetem à gastroplastia. Rev Eletr Enferm. 2009;11(14):982-92.
- Lima LB, Busin L. O cuidado humanizado sob a perspectiva de enfermeiras em unidade de recuperação pós-anestésica. Rev Gaúcha Enferm. 2008;29(1):90-7.
- Dall'Agnol CM, Resta DG, Zanatta E, Schrank G, Maffacciolli R.
 O trabalho com grupos como instância de aprendizagem em saúde.
 Rev Gaúcha Enferm. 2007;28(1):21-6.
- 17. Gushiken CS, Vulcano DSB, Tardivo AP, Jr. Rasera I, Leite CVS, Oliveira MRM. Evolução da perda de peso entre indivíduos da fila de espera para a cirurgia bariátrica em um ambulatório multidisciplinar de atenção secundária à saúde. Medicina (Ribeirão Preto).2010; 43(1):20-8.
- Mello BS, Lucena AF, Echer IC, Luzia MF. Pacientes com câncer gástrico submetidos à gastrectomia: uma revisão integrativa. Rev Gaúcha Enferm. 2010;31(4):803-11.
- 19. Costa LS, Liberali R. Avaliação da qualidade de vida na obesidade. RBONE. 2008;2(9):232-9.