

Meanings attributed to changes occurring after bariatric surgery: an analysis in the light of Grounded Theory

Significados atribuídos às mudanças ocorridas após a cirurgia bariátrica: uma análise à luz da Teoria Fundamentada
Significados atribuidos a los cambios ocurridos después de la cirugía bariátrica: un análisis a la luz de la Teoría Fundamentada

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ABSTRACT

Objectives: to understand the meanings attributed to the changes experienced after bariatric surgery by people with obesity. **Methods:** this is a study with a qualitative approach, with a theoretical framework in Symbolic Interactionism; and methodological, in the Grounded Theory. There were 12 participants who underwent bariatric surgery in two health services (bariatric surgery clinic; general hospital). Data collection took place between July and October 2020, through an intensive interview. Testimonies were recorded using an electronic device and transcribed in full. Data were coded in the MAXQDA 2020 software and analyzed considering the adopted theoretical framework. **Results:** two categories emerged: Rebuilding a social life; and Rediscovering self-esteem. From the articulation of these categories, the phenomenon "Re-signifying life after bariatric surgery" was constructed. **Final Considerations:** bariatric surgery contributed to significant changes in the daily lives of participants, and Symbolic Interactionism allowed the understanding of how participants interpreted their meanings. **Descriptors:** Bariatric Surgery; Symbolic Interactionism; Nursing; Obesity; Grounded Theory.

RESUMO

Objetivos: compreender os significados atribuídos às mudanças vividas após cirurgia bariátrica por pessoas com obesidade. **Métodos:** trata-se de estudo de abordagem qualitativa, com referencial teórico no Interacionismo Simbólico; e metodológico, na Teoria Fundamentada nos Dados. Foram 12 participantes que realizaram a cirurgia bariátrica em dois serviços de saúde (clínica de cirurgia bariátrica; hospital geral). A coleta dos dados aconteceu entre julho e outubro de 2020, mediante entrevista do tipo intensiva. Os depoimentos foram gravados usando dispositivo eletrônico e transcritos integralmente. Os dados foram codificados no software MAXQDA 2020 e analisados à luz do referencial teórico adotado. **Resultados:** emergiram duas categorias: Reconstruindo uma vida social; e Redescobrimdo a autoestima. Da articulação dessas categorias, construiu-se o fenômeno "Resignificando a vida após a cirurgia bariátrica". **Considerações Finais:** a cirurgia bariátrica coadjuvou em mudanças significativas no cotidiano dos participantes, e o Interacionismo Simbólico permitiu a compreensão de como os participantes interpretaram os seus significados. **Descritores:** Cirurgia Bariátrica; Interacionismo Simbólico; Enfermagem; Obesidade; Teoria Fundamentada.

RESUMEN

Objetivos: comprender significados atribuidos a cambios vividos tras cirugía bariátrica por personas con obesidad. **Métodos:** estudio de abordaje cualitativo, con referencial teórico en el Interaccionismo Simbólico; y metodológico, en la Teoría Fundamentada en los Datos. Fueron 12 participantes que realizaron la cirugía bariátrica en dos servicios de salud (clínica de cirugía bariátrica; hospital general). Recolecta de datos ocurrió entre julio y octubre de 2020, mediante entrevista del tipo intensiva. Las deposiciones grabadas usando dispositivo electrónico y transcritos integralmente. Datos codificados en el software MAXQDA 2020 y analizados basados en el referencial teórico adoptado. **Resultados:** emergieron dos categorías: Reconstruyendo una vida social; y Redescubriendo la autoestima. De la articulación de esas categorías, construido el fenómeno "Resignificando la vida tras la cirugía bariátrica". **Consideraciones Finales:** la cirugía bariátrica coadyuvó en cambios significativos en el cotidiano de los participantes, y el Interacionismo Simbólico permitió la comprensión de como los participantes interpretaron sus significados. **Descritores:** Cirugía Bariátrica; Interacionismo Simbólico; Enfermería; Obesidad; Teoría Fundamentada.

INTRODUCTION

Obesity is a public health problem, being considered an epidemic in the world for the last 20 years, so organizational and global actions have been established to fight it. The World Health Organization (WHO) highlights that there are 1.9 billion overweight adults and more than 650 million obese adults worldwide⁽¹⁾. In Brazil, obesity has been growing. In 2020, in the country, overweight was 55.4%, being slightly higher among men (57.1%) than among women (53.9%)⁽²⁾.

The WHO highlighted that 63% of deaths are caused by non-infectious diseases⁽¹⁾, and this mortality rate, worldwide, is associated with the increase in obesity. In addition, this problem has been described as a risk factor for diabetes, hypertension, coronary heart disease, vascular disease and cancer⁽³⁻⁵⁾.

Because it has a multifactorial cause, obesity involves genetic, environmental, lifestyle and emotional factors; for this reason, different methods have been used for its treatment, aiming at an effective result^(1,6). Among the treatments, nutritional guidance with the introduction of healthy foods, adherence to the practice of regular physical activity, psychological support and medical treatment with bariatric surgery when results are not achieved with the previous options stand out⁽⁷⁻⁹⁾.

Bariatric surgical interventions have been used as the fastest method. They guarantee weight loss and the control of associated diseases in morbidly obese people, maintaining the long-term result⁽⁷⁻⁸⁾. Thus, bariatric surgery can be an opportunity for social reintegration in the face of situations of discrimination, intolerance, and exclusion, caused by morbid obesity. Due to this reality, this intervention is not only for a physiological health issue, but also for an emotional, psychological, well-being relationship and self-image acceptance issue⁽¹⁰⁾.

This study is motivated by the lack of qualitative studies that seek to understand the meanings attributed to the changes that occurred in the lives of people undergoing bariatric surgery.

Given this context, the question is: What are the meanings attributed to the changes experienced after bariatric surgery by people with obesity?

OBJECTIVES

To understand the meanings attributed to the changes experienced after bariatric surgery by people with obesity.

METHODS

Ethical aspects

The development of the study was carried out in accordance with the ethical precepts set out in Resolution 466/12, of the National Health Council. The research project was approved by the Standing Committee on Ethics in Research with Human Beings (COPEP). All interviews were consented by the participants by signing the Free Informed Consent Form (FICF), after explaining the objective and method of the study. Respondents were identified with the letter P for "participant", followed by the number that identifies him/her (P1, P2, P3 and so on), ensuring confidentiality and anonymity throughout the research process.

Theoretical-methodological framework

Symbolic Interactionism (SI) was used as a theoretical framework and Grounded Theory (GT) as a methodological framework, based on the constructivist perspective of Kathy Charmaz⁽¹¹⁾.

The SI aims to apprehend behavior, feelings and expectations that are part of symbolic communication. The symbology allows, in this scenario, the perception of dynamic interactive processes present in the relationships between the subject and the interaction elements⁽¹²⁻¹³⁾.

GT has its roots in SI and is reinforced by the way people make sense of social interactions⁽¹⁴⁾. With that, it becomes appropriate, in this research, to illuminate the subjective experiences of the participants.

Methodological procedures

Study type

The study consists of a qualitative approach, linked to the master's thesis "Re-signifying life after bariatric surgery". For greater methodological rigor, this research follows the guidelines proposed by the Consolidated criteria for qualitative reporting research (COREQ)⁽¹⁵⁾.

Study scenario

The study was carried out in two health services: bariatric surgery clinic, which provides private and health insurance services in the municipality of Maringá, Paraná state (PR), Brazil; and a general hospital, which serves patients from the Unified Health System (SUS), in the municipality of Sarandi, in the metropolitan region of Maringá.

Participants and Data Source

The research consisted of 12 participants who underwent bariatric surgery. The search for the participants was carried out through the medical records of the two institutions in the study setting. For the selection of the first sample group, the following inclusion criteria were adopted: being 18 years of age or older and having undergone bariatric surgery for at least six months. Those who did not answer telephone contacts after three attempts on consecutive days were excluded.

The number of research participants followed the theoretical saturation criterion, that is, the collection is considered sufficient when there is no more data that develop the properties and dimensions of a category, as well as when the categories already present an explanatory density capable of responding, together, to the research phenomenon⁽¹⁴⁾. For the formation of sample groups, the criteria were determined based on the theoretical sampling process proposed by GT.

Three sample groups were constituted. The first consisted of five participants who were six months after the operation. The aim was to understand the experience of this participant and the first changes that occurred in this process.

As data collection and analysis took place, new questions were raised, highlighting the noticeable changes after bariatric

surgery. Thus, with each interview, new meanings emerged, making it necessary to seek other participants from different postoperative periods. Thus, the second sample group consisted of four participants who were 12 months after the operation. As new meanings continued to emerge, the third and last sample group was formed, consisting of three participants 18 months after the operation.

Data collection and organization

The search for the participants took place through the medical records of the two selected institutions. With the list of possible participants, the researcher contacted them by telephone and presented the objectives and method of data collection, with a subsequent invitation to participate in the research. After acceptance, the participant’s preferred location was defined, which was the home, or a room reserved by the interviewer for this.

Data collection took place from July to October 2020, through individual intensive interviews⁽¹¹⁾, conducted by the main researcher, who has extensive experience in preoperative and postoperative care in bariatric surgery. To start collecting information, the following guiding question was used: “What changed in your life after bariatric surgery?”. Still, we used a script with other support questions. The interviews lasted an average of 40 minutes; the statements were recorded with the aid of an electronic device, transcribed in full; and their data were coded using the MAXQDA 2020 software. It is noteworthy that no participant requested the exclusion of the information given in the interviews.

Data analysis

For data analysis, the following coding steps were used: initial (line by line) and focused. In the initial coding, each data segment was divided and named in codes that expressed the meanings present in the interviewees’ statements. In all, 344 codes emerged from the analysis process. In this initial phase, each line, word, or fragment was analyzed and coded through the establishment of a word that reflected the action present in the data.

In the focused coding, the most significant previous codes were classified, integrated, synthesized, and organized into categories and subcategories until reaching the phenomenon or central category of the research. Thus, the relationship between all encodings was established to follow the methodological rigor, and the phenomenon was built, which was the central idea acquired through actions or interactions conducted by the participants⁽¹¹⁾. The phenomenon of the study together with the two categories and their subcategories will be presented in Table 1.

During the data analysis process, the research team met to discuss the encodings and contribute to the organization of the central phenomenon as well as the categories and subcategories.

The theoretical model was validated with five participants, one representative of each sample group, through a video call via Google Meet. A representative diagram of the phenomenon and its categories was presented, in addition to the objective of the study and the main results of each category. The validator was asked to describe his understanding of the diagram, evaluating whether his experience was represented and whether it was

relevant to the situation experienced by him. All were satisfied and identified with the theory and with the theoretical scheme.

RESULTS

Twelve participants took part in the study, most of them female (11), married (8), with complete higher education (8) and with a mean age of 37.5 years. The two categories and their subcategories, built based on data analysis, are presented in Chart 1. From these categories, the phenomenon “Re-signifying life after bariatric surgery” was obtained.

Chart 1 – Study phenomenon, categories, and subcategories

PHENOMENON	CATEGORIES	SUBCATEGORIES
Resigning life after bariatric surgery	Rebuilding a social life	- Regaining self-confidence - Overcoming bullying
	Rediscovering self-esteem	- Recognizing oneself a renewed person - Feeling pleasure in putting on an outfit - Rediscovering married life - Feeling satisfied with the surgery

Rebuilding a social life

With weight loss resulting from bariatric surgery, some participants reported increased self-confidence, which had a positive impact on the performance of professional activities and social relationships.

After undergoing the surgery, I have more self-confidence, expose myself in conversation, before I was more withdrawn. Because I always thought I would be judged on my obesity rather than what I was going to say. Today I can talk more, express my opinion more. (P6)

The professional part has changed because you really feel more confident. People, unfortunately, do not give credibility to fat, no matter how smart and capable the person is, got it? If you are not within the standards of the media, you are nobody, you have no value, so this affects our self-esteem a lot! And not today, I'm going to a hearing in Londrina, Marialva calmly, I no longer worry about the trials. (P10)

Participants revealed having experienced embarrassing experiences, such as bullying, characterized by verbal and psychological aggression.

I was bullied because of my weight, sometimes people characterized me: “She’s chubby”. And that’s always been, actually. Today, with weight loss, this doesn’t happen anymore. (P5)

There were people who looked and made fun of clothes that I thought were good for me, and people said that it wasn’t, laughed, thinner girls who passed by and said: “Look how fat she is”. Today is different, no one bothers me with these comments anymore. (P8)

It is noteworthy that the participants reported that, before the surgical procedure, they were victims of bullying, received

judgments due to obesity and their appearance, leading them to embarrassment and consequent social isolation. After the bariatric surgery was performed, this did not happen anymore, as can be seen in the reports.

Rediscovering self-esteem

The recognition of the body image, as a renewed person, was significant for the participants, for attributing changes to a new life, a new chance. Satisfaction with body image was often deprived by obesity, but with weight loss, self-esteem was renewed, bringing well-being and personal satisfaction.

After we operate, it's like a new life. It's all new, a new story starting to be written. Because people start to look at you differently, they start to respect you and see you. (P8)

The first thing we look for is self-esteem. My self-esteem was super low, I was very obese, and having the surgery improved my life, my self-esteem. It's very satisfying... the person sees you on the street and says: "Wow, how different you are!". That's what changes. (P3)

Participants also reported the feeling of pleasure in putting on a lower-numbered outfit and the power of choice.

I even wore 54 pants. Then one day I went to buy one and took the 46 and it was big, 44 got big [...] girl, 38 was good for me! I couldn't believe it! (P10)

Go to the store now, any clothes fit me, not before! It wasn't even the pretty clothes, it was the right one, today I can go to any store, and I won't have any difficulties. (P12)

It was observed, in the participants' reports, that intimacy and interpersonal relationship with the partner were also affected by obesity. It should be noted that the relationship was strengthened after the results of bariatric surgery.

In the past, my husband didn't walk with me hand in hand, I had a problem in my relationship, and it puts everything together. Because my husband didn't look for me anymore, he didn't go out with me anymore. Today all that's left is to hang around with me, and married life has improved a lot. So, I saw that a lot has changed. (P1)

Everything changed, the relationship with my husband changed everything, without a doubt there was, yes, an improvement in the sexual part, because even in that, overweight ends up making it a little more difficult. Today I can maintain a more active sex life. (P2)

Participants expressed satisfaction with the positive results from the weight loss provided by the surgery — for example, in daily activities.

Today I can do the basics with ease, put on a shoe, tie a shoe or sandal, wash a bathroom, clean a house. I'm very satisfied with the surgery, I didn't have any complications. (P7)

I am very satisfied with the surgery, I would do it all over again, it was one of the best choices I made. I wasn't doing it myself. It was like a hand that helped me get out of suffering. (P6)

I'm happy. I'm flattered, because I don't regret it one day; and if I had to do it again, I would. It was the best decision I made. (P4)

From the articulation between the categories and subcategories based on the meanings attributed to the changes experienced by the participants, the phenomenon "Re-signifying life after bariatric surgery" was obtained, represented by the reconstruction of social life and the rediscovery of self-esteem, as presented in Figure 1.

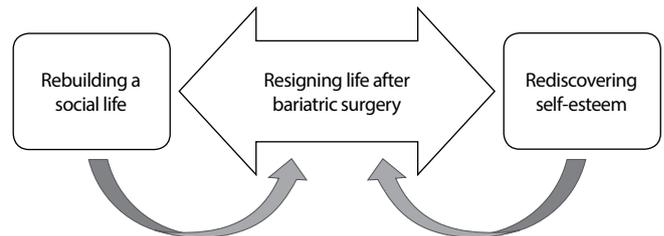


Figure 1 – Representative diagram of the phenomenon and its categories

The diagram indicates the lived experience and the meanings attributed to the changes that took place after the bariatric surgery, representing the process in the search for a new meaning in life after bariatric surgery.

The changes presented after the surgical procedure were identified in the process of interaction with another person, as well as with oneself. Thus, the meanings were perceived based on significant improvements in the participants' daily lives: improved mood, social interactions, and increased self-confidence, with consequent advancement in their social life.

DISCUSSION

In view of the results shown in this research, the meanings attributed to certain symbols were expressed in different ways, representing the change after bariatric surgery based on the process of interaction with another person, as well as with oneself. Experiencing the process of transformation after bariatric surgery was positively symbolized for the participants of this research, generating satisfaction in performing daily, work, and social activities.

The changes reported by the participants were similar to those found in studies included in an integrative literature review⁽¹⁶⁾, in which it was observed that the changes that occurred after bariatric surgery permeate physical, psycho-emotional and interpersonal relationships, and that most changes were related to sustained weight loss, improved quality of life, social and marital interaction and increased self-esteem.

Furthermore, results identified in this study corroborate research conducted with men who underwent bariatric surgery: it was revealed that being obese is having a series of restrictions - for example, in basic daily tasks, such as tying the shoelace, getting out of bed, get in and out of the car and simply walk. They also reported that they avoided social events because they felt ashamed of their body image. However, after surgery, they experienced improvement in psychosocial and physical health⁽¹⁷⁾.

Bariatric surgery can have a positive impact on quality of life⁽¹⁸⁻²⁰⁾. In this perspective, a survey of the Lebanese population, aiming to measure the quality of life in obese individuals before

and after bariatric surgery, identified that weight loss influences the improvement in self-esteem, physical activity, work performance and sexual pleasure⁽²⁰⁾. This is confirmed by the present study, in which the participants expressed improvements in their lives, including in the marital relationship.

Although weight loss was the first noticeable change after surgery, other changes were expressed as significant, such as the development and establishment of new behaviors and lifestyle. It was observed, in general, that most participants reported improvement in clinical conditions, self-esteem, interpersonal and social relationships, at work, interest in sex and the introduction of new habits such as physical activity and proper nutrition.

Other studies also showed a positive impact on the physical and mental health of the participants, reflecting improvements in their lives⁽²¹⁻²³⁾, improvement in self-esteem, physical activity, social life, work performance, sexual pleasure and food approach⁽²³⁻²⁵⁾.

The social life of the participants in this research improved after undergoing bariatric surgery, converging with the result found in a study carried out in the United States, in which the psychosocial changes consisted of improved mental health, increased self-confidence and improved interpersonal relationships with spouses, friends, coworkers and social life⁽²⁶⁾.

Given the results shown in this work, the meanings attributed to certain symbols were expressed in different ways, representing the change after surgery through the process of interaction with another person, as well as with oneself, represented by the SI as Self.

In this sense, bariatric surgery allowed the participants to have better life satisfaction, enabling socialization, as well as the restoration of their potential, which were often neglected. It allowed us to understand conflicts and uncertainties regarding professional, affective, social, family and psychological life⁽²⁷⁾.

Each participant determined one or several meanings that the life situation after bariatric surgery represented. They used verbal symbols, conveying the desired message; and, with these symbols, the meanings were elaborated, which can change with the interaction process, allowing to understand how to celebrate their self-concept and the ability to persevere and to relate in an adequate or not, with themselves and with their social context.

From the SI perspective, meaning is an important element for understanding human behavior, interactions, and experienced processes. The essence of SI are the meanings created by individuals based on behaviors, actions and interactive reactions experienced in everyday society. In this way, the symbol corresponds to the metaphorical and hypothetical representations that the individual makes of social relations⁽²⁸⁾.

In the present research, the meanings attributed by the participants revealed that weight loss contributed to their lives to improve significantly, achieving positive results related to increased self-esteem, body satisfaction, improvement in interpersonal relationships and sexual function. Thus, the phenomenon "Re-signifying life after bariatric surgery" emerged, through which it was verified that the Grounded Theory supported by Symbolic Interactionism proved to be adequate for the research. We sought to understand human action through the meanings that things have for the participants, thus allowing the understanding of how they interpreted, meant, and re-signified their lives after undergoing bariatric surgery.

Symbolic Interactionism is linked to the interaction process in which individuals are active and learn to give meaning to things, valuing the meaning attributed to their experiences. In this way, participants can interact, can be in this movement of acting, perceiving, interpreting and acting again, being actors and reactors within an active process in the world⁽²⁹⁾.

Study limitations

The limitation of this study is the fact that all participants in this research were successful in surgery, that is, people who had complications in the postoperative period did not participate. However, it is noteworthy that the study responded to the proposed objective, understanding the meanings attributed to the changes that occurred after bariatric surgery.

Contributions to the field of nursing, health, or public policy

The results of this study may contribute to nursing practice, so that they can support health professionals, motivating discussions with people with obesity about the importance of weight loss for a better quality of life, to reduce associated diseases and increase self-esteem. Thus, given that the nursing professional is committed to comprehensive care, it is noteworthy that it is their role to develop care strategies and actions, working with the prevention and control of obesity, together with the multidisciplinary team, raising awareness of people with obesity of the risks to which they are exposed.

The SI and the GT were shown to be relevant to contribute to the dissemination of knowledge to health professionals who work with people with obesity, especially with individuals who underwent bariatric surgery. In addition, they helped to recognize the factors that affect the life of people with obesity before and after surgery, helping to develop care strategies at the individual and collective levels that minimize the stigma faced, increasing self-esteem, with consequent improvement in the quality-of-life.

FINAL CONSIDERATIONS

The findings of this study showed that bariatric surgery, in addition to contributing to weight loss, contributed to significant changes in the daily lives of participants, with repercussions in the physical, emotional, professional, and social context.

Understanding the meaning of these changes, in their own lives, left them satisfied with the activities they now perform and with the change in behavior reflected in the improvement of clinical conditions, acceptance of their body image, increased self-esteem, improved interpersonal relationships and social and sexual desire.

Self-acceptance provided self-satisfaction, with the consequent restoration of pleasure in living. It is noteworthy that Symbolic Interactionism allowed the understanding of how the participants interpreted, meant, and re-signified their lives after undergoing bariatric surgery.

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REFERENCES

1. World Health Organization (WHO). Global action plan for the prevention and control of noncommunicable diseases 2013-2020 [Internet]. Geneva: WHO; 2013[cited 2020 Dec 15]. Available from: http://www.who.int/cardiovascular_diseases/15March2013UpdatedRevisedDraftActionPlanAPPROVEDBYADG.pdf
2. Ministério da Saúde (BR). Vigilatel Brasil 2019: vigilância de fatores de risco e proteção para doenças crônicas por inquérito telefônico: estimativas sobre frequência e distribuição sociodemográfica de fatores de risco e proteção para doenças crônicas nas capitais dos 26 estados brasileiros e no Distrito Federal em 2019. Brasília, DF: MS; 2020.
3. Lindekilde N, Gladstone BP, Lübeck M, Nielsen J, Clausen L, Vach W, et al. The impact of bariatric surgery on quality of life: a systematic review and meta-analysis. *Obes Rev*. 2015;16(8):639-651. <https://doi.org/10.1111/obr.12294>
4. Franssens BT, Hoogduin H, Leiner T, Graaf Yvan der, Visseren FLJ. Relation between brown adipose tissue and measures of obesity and metabolic dysfunction in patients with cardiovascular disease. *J Magn Reson Imaging*. 2017;46(2):497-504. <https://doi.org/10.1002/jmri.25594>
5. Kolotkin RL, Smolarz BG, Meincke HH, Fujioka K. Improvements in health-related quality of life over 3 years with liraglutide 3.0 mg compared with placebo in participants with overweight or obesity. *Clin Obes* 2018;8(1):1-10. <https://doi.org/10.1111/cob.12226>.
6. Leeners B, Geary N, Tobler PN, Asarian L. Ovarian hormones and obesity. *Hum Reprod Update*. 2017;23(3):300-21. <https://doi.org/10.1093/humupd/dmw045>
7. Alarcón Del Agua I, Socas-Macias M, Busetto L, Torres-Garcia A, Barranco-Moreno A, Garcia de Luna PP, Morales-Conde S. Post-implant analysis of epidemiologic and eating behavior data related to weight loss effectiveness in obese patients treated with gastric electrical stimulation. *Obes Surg*. 2017;27(6):1573-80. <https://doi.org/10.1007/s11695-016-2495-3>
8. Douglas TD, Stephens JW, Barry J, D Lee MD, Wilkinson LL. The influence of attachment orientation on weight loss, eating behavior and other health outcomes among patients undergoing bariatric surgery: a systematic scoping review. *Appetite*. 2020;147:104504. <https://doi.org/10.1016/j.appet.2019.104504>
9. Diplom AF, Rose M, Ordemann J, Klapp BF, Ahnis A. Changes in self reported eating patterns after laparoscopic sleeve gastrectomy: a pre-post analysis and comparison with conservatively treated patients with obesity. *Surg Obes Relat Dis*. 2017;13(2):129-37. <http://doi.org/10.1016/j.soard.2016.08.003>
10. Pinto FRM, Silva CAB. Profile and perceptions of morbid obese Ceará men about obese life. *Rev Psicol Divers Saude*. 2019;8(2):192-205. <https://doi.org/10.17267/2317-3394rpsd.v8i2.2392>
11. Charmaz K. A construção da teoria fundamentada: guia prático para análise qualitativa. Editora Penso; 2009.
12. Carvalho LS, Silva CA, Oliveira ACP, Camargo, CL. O interacionismo simbólico como fundamentação para pesquisas de Enfermagem pediátrica. *Rev Enferm UERJ*. 2007;15(1):119-24. <https://doi.org/10.5935/1676-4285.2007723>
13. Ennes MA. Interacionismo simbólico: contribuições para se pensar os processos identitários. *Perspectivas* [Internet]. 2013[cited 2021 Jan 20];43:63-81. Available from: <https://periodicos.fclar.unesp.br/perspectivas/article/view/5956/4859>
14. Rosa LS, Valadares GV, Silva ÍR. Meanings attributed to causes of accident with perforocortants: perception of nursing professionals. *REME*. 2018;22:e-1146. <https://doi.org/10.5935/1415-2762.20180077>
15. Souza VRS, Marziale MHP, Silva GTR, Nascimento PL. Translation and validation into Brazilian Portuguese and assessment of the COREQ checklist. *Acta Paul Enferm*. 2021;34:eAPE02631. <https://doi.org/10.37689/acta-ape/2021AO02631>
16. Zulin A, Rodrigues TFCS, Cardoso LCB, Santos FGT, Rêgo AS, Oliveira LDF, et al. Changes that occurred after bariatric surgery: an integrative literature review. *Res Soc Dev*. 2021;10(3):e31410313329. <https://doi.org/10.33448/rsd-v10i3.13329>
17. Edward K-L, Hii MW, Giandinoto J-A, Hennessy J, Thompson L. Personal descriptions of life before and after bariatric surgery from overweight or obese men. *Am J Mens Health*. 2018;12(2):265-73. <https://doi.org/10.1177/1557988316630770>
18. Major P, Pędziwiatr M, Dworak J, Pisarska M, Lasek A, Wierdak M, et al. The impact of preoperative body weight on quality of life after surgical treatment for morbid obesity. *Bariatr Surg Pract Patient Care*. 2016;11(4):147-52. <https://doi.org/10.1089/bari.2016.0020>
19. Oliveira LSF, Mazini Filho ML, Castro JBP, Touguinha HM, Silva PCR, Ferreira MEC. Bariatric surgery repercussions on the quality of life, biochemical profile, and blood pressure of patients with morbid obesity. *Fisioter Pesqui*. 2018;25(3):284-93. <https://doi.org/10.1590/1809-2950/17017725032018>
20. Akkayaoglu H, Çelik S. Eating attitudes, perceptions of body image and patient quality of life before and after bariatric surgery. *Appl Nurs Res*. 2020;53:151270. <https://doi.org/10.1016/j.apnr.2020.151270>
21. Nickel F, Schmidt L, Bruckner T, Büchler MW, Müller-Stich B-P, Fischer L. Influence of bariatric surgery on quality of life, body image, and general self-efficacy within 6 and 24 months: a prospective cohort study. *Surg Obes Relat Dis*. 2017;13(2):313-9. <https://doi.org/10.1016/j.soard.2016.08.017>
22. Castanha CR, Ferraz ÁAB, Castanha AR, Belo GQMB, Lacerda RMR, Vilar L. Evaluation of quality of life, weight loss and comorbidities of patients undergoing bariatric surgery. *Rev Col Bras Cir*. 2018;45(3):e-20181864. <https://doi.org/10.1590/0100-6991e-20181864>

23. Cherick F, Te V, Anty R, Turchi L, Benoit M, Schiavo L, et al. Bariatric surgery significantly improves the quality of sexual life and self-esteem in morbidly obese women. *Obes Surg*. 2019;29(5):1576-82. <https://doi.org/10.1007/s11695-019-03733-7>
 24. Cecílio HPM, Sanches RCN, Radovanovic CAT, Marcon SS. Perceptions of obese women on sexuality. *REME*. 2014;18(4):955-60. <https://doi.org/10.5935/1415-2762.20140070>
 25. Alkassis M, Haddad FG, Gharios J, Noun R, Chakhtoura G. Quality of life before and after sleeve gastrectomy in Lebanese population. *J Obes*. 2019;1952538. <https://doi.org/10.1155/2019/1952538>
 26. Griauzde DH, Ibrahim AM, Fisher N, Stricklen A, Ross R, Ghaferi AA. Understanding the psychosocial impact of weight loss following bariatric surgery: a qualitative study. *BMC Obes*. 2018;5:38. <https://doi.org/10.1186/s40608-018-0215-3>
 27. Haddad MCL, Leroux AMR, Santos CF, Loman H, Oliveira SG. Qualidade de vida após gastroplastia. *Cienc Cuid Saude*. 2003;2(1):37-43 <https://doi.org/10.4025/ciencucidsaude.v2i1.5566>
 28. Copelli FHS, Alves MP, Santos JLG. Interacionismo simbólico como referencial teórico para Teoria Fundamentada nos Dados na pesquisa em enfermagem. In: Lacerda MR, Santos JLG, organizers. *Teoria fundamentada nos dados: bases teóricas e metodológicas*. Porto Alegre: Moriá; 2019. Cap. 7, p. 181-96.
 29. Charon JM. *Symbolic interactionism*. 3th ed. Englewood Cliffs: Prentice-Hall; 2004.
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