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More than Meets the Eye: A Qualitative Investigation of the Complex Weight History Constructions of Brazilian Women Who Underwent Bariatric Surgery

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ABSTRACT

Most studies on bariatric surgery identify personal factors such as “non-compliance” to lifestyle changes as the cause of weight gain and subsequent inability to lose weight. Prior qualitative studies suggest that weight loss patients have complicated relationships with both self and weight, with significant emotional and psychological implications. But how do patients themselves understand the trajectories of their weight gain as related to intrinsic versus extrinsic factors? A qualitative analysis examined the aspects involved in the construction of higher body weight from the perspectives and life experiences of Brazilian women who underwent bariatric surgery, considering that Brazil has previously been reported as a highly anti-fat society. Individual, semi-structured interviews were conducted with thirty women (15 aged 33-59 and 15 aged 63-72). Data were analyzed identifying the regular, expressive, and meaningful significance units identified through the interviews. Although it was expected that different life events were reported as crucial to the perceived aetiology of individual weight gain stories, the participants reported that the emotional aspects had more impact. The extremely high value attached to having a particular body weight negatively influenced the participants' concept of identity and harmed their interactions and understanding of what it meant to be fully loved and accepted. Most of the participants underscored the importance of food in women's lived experiences and explanations of weight gain. Despite this somatic response being dysfunctionally directed to food, this mechanism seemed to be vital to keeping them alive and engaged in the world. Finally, the participants faced layered vulnerabilities, which decreased their opportunities to access resources aimed at better body weight management. Broad approaches that consider emotional and physical care strategies must be proposed to this population.

Keywords: Mental health; Bariatric surgery; Obesity; Body weight; Stigma; Brazil; Qualitative investigation

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1. Introduction

Ethnographic accounts and body image surveys suggest that the social capital embedded in thin bodies is particularly relevant in Brazil, where slim-waisted ideals are currently hegemonic (e.g., ^[1,2]). In Brazil today, thinness is seen as a vehicle for social ascension and better socioeconomic opportunities, particularly among certain segments of the urban middle class, where the ideal for women is a thin waist, a large chest, and large (but cellulite-free) buttocks and the ideal for men is physical strength, power, and virility ^[1,2]. Body dissatisfaction is very high, especially among urban, middle-class women ^[3]. Bodies are, however, also seen as “fixable” by many Brazilians through medical interventions like surgery. In such a context, one that connects personal and social moral failing to an individual’s inability to lose weight, the consequences of not being able to achieve an ideal, thin body can be psychologically and emotionally devastating ^[4].

One of the most effective means for losing substantial excessive weight—at least at the individual level—is bariatric surgery, a type of procedure that induces severe weight-loss through the surgical modification of the stomach and/or intestines ^[5]. Bariatric procedures have been available at no cost to patients through the Brazilian Unified Health System since 1999 ^[6]. From a clinical perspective, bariatric surgery can be a useful tool for helping patients with severe type 2 diabetes and other diseases commonly associated with weight deemed medically excessive ^[7]. Patients, however, rarely present for surgery without a complexity of related psychological issues and socially-situated anxieties stemming from negative, weight-related experiences prior to surgery ^[7].

Qualitative studies allow us to understand the meanings of this procedure to the candidates ^[7-11], to comprehend how these meanings affect the surgery outcomes ^[12], and to clarify the expectations, perceptions, and beliefs about obesity surgery among would-be bariatric patients ^[7,11]. It is important to highlight that “obesity” designates fatness as pathological. This word choice was used in this article when referring to or reflecting the articulated atti-

tudes of organizations or when dialoguing with other clinically-oriented researchers. Otherwise, words such as “high body weight” and “large body” were used ^[13]. Most bariatric programs—and the research that flows from them—still attempt to understand the lived experiences of bariatric surgery and its attendant weight loss through a focus on the moral individual: Individuals classified with obesity “fail” to make effective lifestyle changes before and even after the surgery, reinforcing the sociocultural view of people with higher body weight as “undisciplined”, “without willpower” and responsible for their condition ^[7-11]. Less is understood about how weight loss and surgery are placed by patients in the context of their specific life trajectories; that is, how they come to understand the broader processes in which their own weight was and remains embedded.

It is understood that people who will have or have already had this surgery rely on complex, multi-layered etiological models regarding how their large bodies were constructed before the surgical intervention. This understanding is the departure point for the arguments put forth in this paper. The aim is to advance knowledge on the multi-causality of this perceived condition (i.e., high body weight) from the perspective of patients’ lived experiences, based on a qualitative research project conducted in Brazil.

Relying on the stories of women who had undergone bariatric surgery, the aim of this article is to qualitatively investigate the interplay between intimate, personal vs. broad, structural factors as explanations for women’s higher body weights pre-surgery, with particular interest in the emotional, economic, and social dimensions of these articulated explanations. More specifically, the research questions are: how do patients themselves understand the trajectories of their weight gain as related to intrinsic versus extrinsic factors? With particular interest, do they refer to emotional aspects to talk about the changes in their weight? Does other aspects, such as economic and social dimensions, are also articulated in their narratives? Do these aspects interact with each other? Qualitative interviewing is especially important and useful here, because it not only extracts

culturally-situated stories that can be analyzed, but also the act of the interview itself can help patients develop and order those stories. With this qualitative investigation, the expectation is to shed light on nuances related to the construction of a higher body weight that has not yet been explored. For example, one key prediction was that women's details of their lifetime trajectories related to weight would identify multiple external influences, a position that provides a counter narrative to core sociocultural assumptions that weight gain is always due to personal failings. Another prediction, however, was that the idea of personal failure would still be embedded in women's telling of their stories, and that it would be associated with emotional costs like distress.

2. Methods

2.1 Setting

The Ethics Committee at the School of Public Health of the University of São Paulo and the Hospital das Clínicas of the School of Medicine of the University of São Paulo (HCFMUSP) approved this study (Approvals 4.031.373 and 4.143.745, respectively). Participants provided both digitally recorded oral consent and digitally recorded informed consent, and both processes were also approved by the Ethics Committee. All research procedures adhered to the regulations in the Declaration of Helsinki as revised in 2008.

This research was carried out at Hospital das Clínicas of the School of Medicine, University of São Paulo (HCFMUSP). This institution is a tertiary, referral-based teaching hospital located in the most populated city in Brazil, São Paulo. Before the onset of the COVID-19 pandemic, women who underwent bariatric surgery were recruited by the researchers, by visiting the clinic and interacting with patients between November 2019 and March 2020. Interested participants provided Author 1 with their names and contact information. During the pandemic (June-August 2020), patients being followed by the Bariatric Surgery Out-patient Clinics of HCFMUSP were recruited by the authors via a list of eligible

participants that was provided by the clinic. The participants who fit the proposed profile (i.e., adult women who had undergone surgery at HCFMUSP) were invited to participate. The potential participants were contacted via a WhatsApp message from Author 1. In this contact, Author 1 introduced herself, explained why she was contacting them, the purpose of the research, and clarified that if they agreed to participate, the participation would be voluntary.

2.2 Study design and population

This study is part of a more extensive qualitative research project that investigates the perceptions of adult women who have undergone bariatric surgery. The methodological framework of the present study focuses on two distinct age categories, but the information is presented to provide contextualization, not comparison. The sample consisted of 30 women who were categorized as "adult" (aged 33-59) or "older" (aged 63-72) at the time they underwent bariatric surgery. Sample sizes for adult and older groups are suitable for theme identification in qualitative research^[14]. To qualify for this study, the participants must have undergone the surgical procedure one to five years prior and had the surgery at HCFMUSP.

2.3 Data collection

Author 1 conducted two semi-structured interviews with each woman who consented to be in the study^[15]. These conversations sought to comprehensively understand how women's bodies were constructed throughout their lives. The interviews were conducted over two encounters within a short period of time (e.g., in the same or consecutive weeks). Because of the social isolation imposed by the pandemic, the interviews were conducted remotely via WhatsApp video calls, which were audio-recorded and then transcribed verbatim. The interview transcription was conducted by a specialized service, which ensured confidentiality. Non-verbal behavior such as gestures was observed and recorded in separate handwritten notes by Author 1. The average time of each of the two encounters was one hour

and a half. This two-encounter approach proved to be quite effective in obtaining data and resulted in higher adherence to study protocols because it fits women's schedules. Notably, the time gap between the first and second interviews led to increased reflexivity among the participants and the researcher, who reviewed the recording of the first encounter to note gaps that needed to be covered in the second. Author 1 has extensive experience with semi-structured interviews, having conducted this type of research during her M.A. and Ph.D. work. The interview protocol that guided the interviews is presented in Supplementary Material.

2.4 Data analysis

Participants' life stories and narratives were assembled from the data collected in the interviews so that it was possible to investigate the ways that interviewees understood how their bodies gained a higher weight. First, an initial reading of the transcripts was conducted by Author 1, in which the researcher noted the most salient aspects of the data^[15]. Following Braun and Clarke^[16], thematic analysis comprised a series of phases. Initially, Author 1 familiarized herself with the data set by reading and rereading the transcripts and noting down initial analytical observations. Then, Author 1 coded the transcripts, systematically identifying and labelling relevant features of the data in relation to the research questions and grouping together similar data segments. Afterwards, the development of themes was conducted and in this stage of the process, Author 1 worked closely with the other authors, and discussed the process until the final consensus. As Braun and Clarke^[16] highlight, themes are not simply sitting in the data waiting to be uncovered. Rather, Author 1 clustered together codes to create a plausible mapping of key patterns in the data. The themes were then named, categorized, and organized and the final product then provided a road map for the write-up. Finally, Author 1 presented the analytic narrative with vivid and compelling data extracts. The theoretical frameworks that guided the analysis included the frameworks of the fat studies^[17] psychodrama^[18,19], intersectionali-

ty, and social markers of difference^[20].

3. Results

Thirty women (N = 15 aged 33-59 years and N = 15 aged 63-72 years) participated in the study. Their general characteristics are presented in **Table 1**. All the women's bariatric surgeries were performed between 2016 and 2019, before the onset of the COVID-19 pandemic.

Four adults and one older woman reported they had had a higher body weight since they were children. At that time, some of them were not medically classified as obese but were "*cute little chubby kids*", as one of them remembered. The other eleven adults and fourteen older women reported that they were thin kids. Of these twenty-five, three (two adults and one elderly woman) maintained this thin body until their adolescence, when they started gaining weight. The remaining nine adult and thirteen older participants maintained a thin body until adulthood.

During this time, all the women said that they remembered being satisfied with their body, classifying it as "beautiful" and "marvellous," and usually described themselves as having proportional measures and in particular, a narrow waist. For three adults and one older woman, having a thin body opened job opportunities. Sonia (an adult), for example, said that she maintained her "good" appearance (i.e., a lean body) to have better job positions, which in turn allowed her to be independent and able to help her family financially.

When asked when they started gaining weight, distinct aspects were mentioned by them, including life changes, health problems, and dieting and using weight-loss drugs, which are detailed below. For most participants, although these aspects are presented separately, they interact with one another to produce multi-layered stories of suffering and struggle.

3.1 Life course changes

Some participants mentioned life changes that modified their eating behaviors, which, in turn, contributed to their weight gain. For example, Catia (an

Table 1. General characteristics of women participating in the study.

	Adults (N = 15)	Older (N = 15)
Current age (year), mean (SD)	45 (8.7)	67 (2.4)
Age at surgery (year), mean (SD)	43 (8.7)	64 (2.4)
Anthropometry		
Current body mass index (kg/m ²), mean (SD)	31.2 (4.7)	33.9 (4.0)
Body mass index (kg/m ²) at surgery, mean (SD)	44.9 (6.9)	44.8 (4.7)
Highest body mass index (kg/m ²) pre-surgery, mean (SD)	51.9 (10.5)	51.9 (7.8)
Lowest body mass index (kg/m ²) post-surgery, mean (SD)	29.5 (4.5)	31.5 (5.1)
Self-reported skin color , n (%)		
White	4 (26)	11 (74)
Black	1 (7)	2 (13)
Brown	10 (67)	2 (13)
Relationship status , n (%)		
Single	3 (20)	1 (7)
Married	8 (53)	6 (40)
Common-law marriage	1 (7)	1 (7)
Divorced	2 (13)	3 (20)
Widowed	1 (7)	4 (26)
Education , n (%)		
Graduated from elementary school	2 (13)	2 (13)
Incomplete elementary school graduation	0 (0)	5 (33)
Graduated from high school	5 (33)	4 (27)
Incomplete high school graduation	1 (7)	1 (7)
Graduated from college	6 (40)	1 (7)
Incomplete college graduation	0 (0)	2 (13)
Postgraduate-level studies	1 (7)	0 (0)
Household conformation , n (%)		
Lives alone	2 (13)	4 (27)
Lives with only one family member	2 (13)	7 (46)
Lives with two family members	5 (33)	4 (27)
Lives with three or more family members	6 (41)	0 (0)
Monthly family income (value in U.S. Dollars), n (%)		
≤ 397.00	6 (40)	8 (54)
397.01-794.00	4 (27)	6 (40)
794.01-,986.00	4 (27)	1 (6)
1,986.01-3,972.00	1 (6)	0 (0)

adult) lived in a rural area and moved to an urban area. This resulted in changes in what she ate, particularly the inclusion of ultra-processed foods. For others, getting married and improving their financial condition also impacted their diet and therefore, their weight, as Marcia and Vivian (both adults), remembered. According to Marcia, her younger self had thought “*Now that I am married, it is my life, I go to the market, I buy what I want: yoghurt, Coca-Cola®, chocolate. I am not buying rice, beans...*”.

Other participants also shared changing aspects of their lifestyles that they felt contributed to their weight gain. Myrian (an adult) believed that the reasons she gained weight were complex, related to her sedentarism and the unbalanced diet of her family when she was younger but also to other factors. She remembered that there was a lot of “*junk food, ice cream, packaged snacks*” that everyone in her house ate, but she also acknowledged that her father’s family had people with high body weight, so she felt there was a genetic component as well. Rita (older) reported that she had a very “bohemian” life for several years during her adulthood: she enjoyed dancing with friends all night long, an activity that was accompanied by alcohol and smoking. Then, when she was 57 years old, she stopped it all for religious reasons, and that was when she started to gain weight.

Modern, urban employment was also mentioned frequently as a contributing factor. Arlete and Maddalena (both older) mentioned their excessive workload as a barrier to a healthier lifestyle, contributing to their weight gain. Maddalena said, “*I was working in two services, I was on duty at the emergency room at night and after I went straight to the health center. It was eight hours of work, I came home at 5 p.m. sleepy, tired, and only then I would make something for dinner, so I just got fat.*” Joana (an adult) said that she woke up early, took her children to daycare, came back home after working the entire day, and as a result, ended up eating ready-to-eat foods. For Maddalena, this workload was combined with the stress and fear of living with an abusive husband, and, to her, being able to stay outside her house was a much-needed protective measure, but also reduced

her ability to cook homemade foods.

Most of the participants mentioned their pregnancies as an aspect that influenced their weight gain, but not expressively. It was different from Teresa (older), who believed that the anesthesia needed for her cesarian triggered her weight gain. Rosana (an adult) also had a distinct experience after she gave birth. She was having difficulty breastfeeding her child and heard that *canjica* (a Brazilian sweet dish composed of grated corn, sugar, and coconut milk) would stimulate milk production, so she ate large quantities of it to help her breastfeed and gain weight with it (she used to wear a Brazilian mannequin size 38 and started wearing a 42, equivalent to the 6-10 U.S. numeration, respectively). Finally, Arlete (older) had a risky pregnancy and had to stay in bed. She remembered eating all the time and gaining weight as a result. Although these cases were unusual, women commonly reported that they gained weight during pregnancy and had difficulty losing it all after giving birth.

3.2 Struggling with health issues

For some participants, health problems were slightly or highly relevant to their weight gain because of the side effects of certain drugs used to control a condition or pain. Rosana (an adult), for example, had toxoplasmosis, and she took numerous medicines to treat it. She reported that this was when her weight increased more significantly. Other health problems that were noted as contributing to weight gain included myomas, resulting in the removal of the uterus, and cancers. Illustratively, Carmen (older) was diagnosed with cancer when she was 48 years old. She had the tumor removed surgically and then did chemotherapy, gaining weight afterwards. She said that after chemotherapy “*was when I completely lost control [of my weight].*” When she was pronounced free from cancer three years later, her weight was extremely high, but when she asked about weight loss strategies her doctor advised: “*It is no use dieting now, wait because your body will start to reduce the corticoids by itself; then you can do whatever you want [to lose weight].*”

Health issues often combined with other factors and were attributed to weight gain by participants in their narratives. For example, Laís (an adult) was diagnosed with polycystic ovarian syndrome when she was twelve years old, and because of that, she remembered putting on 20 kg per year throughout her late teens. At this age, she also found a lump in her salivary gland, which later evolved into cancer, and she had to have it removed surgically. She identified that these health problems contributed to her weight increase. Another aspect that contributed to it, however, was related to changes in her routine. In her early teens, she moved to São Paulo with her father, a couple of years later, when she was fourteen years old, she started working for wages and spent the entire day outside the home. She started working because she wanted to have an occupation and independence. She recalls that at fourteen, she had the habit of skipping breakfast, and often forgetting to have lunch as well, because she was involved with her activities. Then, she would eat a large amount of food when she got home at night. These eating habits combined with a sedentary life resulting from this intense routine and a lack of motivation to exercise: *“After I moved to São Paulo, I became very sedentary. I stopped physical activity [because I did not feel like doing it], I just went to work. I came home, and I ate. I did not do anything. And then I got fatter, fatter, fatter.”* As Laís’ narrative demonstrates, it was not simply the health conditions nor the change in routine but rather these acted together to produce a situation of eating with subsequent weight gain.

3.3 Dieting and using weight-loss drugs

All participants reported trying a combination of restrictive diets and/or medications for weight reduction prior to trying bariatric surgery. Weight-loss medications containing amphetamines were often prescribed by pharmacies or clinics to individuals experiencing weight gain, as Tania (an adult) remembered. She weighed about 10 kg more than her usual weight when physicians prescribed her weight-loss drugs. All the participants reported experiencing side effects and weight regain with the drugs. Patricia (an

adult) said she regretted taking weight-loss drugs and believed that she was “morbidly obese” (her words) because of those drugs. She told us, *“I would have been chubby my whole life, but I would not have gotten where I got without the medication.”* Cristina (an adult) also stressed how negatively she was affected because of the use of prescription weight-loss medications, saying, *“When I was losing weight [with the help of drugs], I was without spirit and... I sat on the sofa in the living room, and I did not feel like turning on the television. I looked at the floor, and I looked at the ceiling. I just wanted to cry, and I could not sleep.”* Then she discontinued the use and subsequently gained weight. Increased anxiety and lack of sleep were common side effects reported by the participants, and all of them reported regaining weight after discontinuing the use of the medications.

Regarding restrictive diets, the majority tried different strategies, usually on their own rather than as part of a program (and sometimes guided by diet plans they found online, on the television, or in magazines), but these diets were not sustainable. Some of them were given some guidance by a health professional but were nonetheless unsuccessful in their attempts to lose weight. For example, Myrian (an adult), who reported that she had been medically classified as obese since an early age, had been visiting an endocrinologist since her childhood. This professional repeatedly gave her restrictive diets to reduce weight, but Myrian said they were difficult to follow because her family was not engaged in the process with her. Myrian said, *“I did the diet, and the rest of the house did not. So, it was really bad because I broke the diet.”* She added that while she was eating a plate full of vegetables, her brother was eating a slice of pizza.

3.4 Emotional health and suffering

As it is possible to see from the preceding sections, women talked about a variety of lifestyle changes and health issues that they felt led to increased weight. For most of the participants, however, more significant weight gain was related to emotional health. At the same time, downturns in

emotional health were intertwined with downturns in social, physical, and economic circumstances.

Gaining weight because of depression, tragedy, and isolation

In this section, all the self-isolation experiences took place years before the pandemic. Some women associated their weight gain with depression. Sonia (an adult) said that the “good” and “beautiful” body (i.e., her previously thin body) had not led to more meaningful relationships for her and she had never felt that she “deserved” her body. When she was thin, she remembered feeling “*terrific, but I also didn’t want people to see only that in me.*” Therefore, she voiced a will to change that: “*Deep down, I wanted to let it happen [gain weight], I let me get ugly to see if I got ugly, things [relationships] would improve, which in reality did not happen.*” She remembered believing that happiness was not for her. She said, “*I said, ‘Look, it was a father who didn’t want me, who mistreated me, a mother who abandoned me, a husband who said that he would take care of me and didn’t, a daughter who offended, humiliated me, so I don’t think I’m good for anything, and I do not deserve anything, so I have to find a way to disappear.’ However, I never dared to commit suicide.*” At this time, food comforted her, and gaining weight was her way of disappearing and managing her emotional state.

Benedita (older) used amphetamines, prescribed by health professionals, to control her weight for ten years, but the drugs were prohibited after that. While she stopped being prescribed the amphetamines, she quit smoking (she had previously smoked two packs of cigarettes per day) and quit her job, because she was exhausted. Around this same time, her husband cheated on her ultimately leading to divorce. Therefore, she became profoundly depressed. She explained that food was her comfort during this difficult time, but the emotional and weight-related consequences were substantial: “*I didn’t go out, I was afraid of everything, I stayed [in my house] for about a year or so like this... Then I exploded, I weighed 136 kilos.*” Vivian (an adult) remembered that she started gaining “real” weight when she had

depression. When the interviewer tried to explore how she believed the weight gain connected to her depression, she responded that she suspected that might have to do with weight-loss medications she was also taking at this time, but the connection is also blurred in her memory. She said, “*I took a lot of [weight-loss] drugs. The drugs started to mess with my psyche a lot. That is why I say it is a blank. Some things I try to relate to, but others I cannot. When you ask, ‘What originated this?’ I don’t know. It is a mix of many other things.*” This exchange again highlights the fact that although these results are being reported in seemingly distinct sub-sections, the reality of women’s lives (and weight trajectories) was much messier and more complex. Vivian drew attention to depression when describing her weight gain, but weight-loss medications also appeared to play a part.

Similarly, Luana (an adult) had a regularly active life until she was in a severe car accident, which left her with important physical limitations, and unable to continue her activities. Consequently, she was depressed and attempted suicide. The abrupt change in her ability to move her body in combination with the sudden onset of acute depression resulted in a significant weight gain. Physical and emotional health again intertwine in this narrative.

Experiencing losses also triggered depression. Laís (an adult) attributed her weight increase to her parents’ divorce, which affected her greatly. A year before her bariatric surgery, she got depressed. She reported, “*The year before the surgery was the worst year that I have ever lived. I was not working, and I was only inside my house. I just ate, ate, and ate. Then depression hit me. It looked like things did not work out for me.*” In this instance, the loss was a severed relationship within her family. Other losses were also reported by participants. Celia (older) lost her son, and reported getting depressed and anxious as a result. She said that when she was anxious, she ate, and her weight greatly increased. Similarly, Eugenia and Simone (both older) attributed their weight increase to their grief after their fathers passed away.

Some of the reported losses were multi-layered

in their narratives and the resulting tragedy. Bruna (an adult) started gaining weight after her boyfriend drowned. She was with him when it happened, and she blamed herself for years for his death, saying, “*I did not think it was fair that I lived... I survived and he did not.*” After he died, she narrated that “*all my traumas, the pain that I felt, I was taking it out on food... but compulsively.*” She remembered staying indoors, being depressed, and not interacting much with others. Amanda (an adult) was pregnant with twin girls and tragically lost her babies in a miscarriage after her husband hurt her. She told us, “*I was four days away from having these kids, and he literally... I do not know what happened to him, he went nuts... And he ended up killing my two daughters.*” After that, she could not become pregnant anymore, developed a hormonal dysfunction, and then was operated on for a fibroid. She said that eventually, she just gave up: “*I was surrendering myself. And it was certain: the depression came [...] And then I gained weight, gained weight. My emotional life was totally unstructured.*”

Gaining weight because of broader emotional aspects and negative life events

Other participants did not classify their emotional state as “depression” per se but mentioned the emotional consequences of certain events. Patricia (an adult) was sexually abused when she was five years old. She reported, “*From that moment on, I started getting fat, getting fat, and then I was obese.*” Years later, she realized that eating had to do with trying to hide, not attracting admiring eyes, and wishing not to be wanted. A similar perception of trying not to attract attention was shared by Cristina (an adult). She had a traumatic experience with a boyfriend, in which her family discovered their sexual involvement and were very condemning of it, and this exposure felt very invasive to her. She relates this emotional mark in her life as something that affected her weight gain: “*These things contributed more for me to gain weight, to be in this malaise, in this thing of not feeling good about anything.*” Monica (older) told us that she discovered her husband cheated on her, and this made her extremely frustrated and

upset. She believed that her more significant weight gain was related to her frustration and unhappiness from the discovered infidelity.

Giovana (an adult) also talked about her emotional state contributing to her weight gain, but focused on how this was affected by her relationship with her mother. Giovana said that she was only twelve years old when her mother started working, and she had to take care of her three siblings and assume the household activities. She told us, “*That was when I started gaining weight.*” She remembered fearing her mother’s reaction if things at home were not as she expected when she arrived: “*If my mother came home and the kids were not bathed, and I did not have ready-made food I was beaten up.*” She believes that living under that tension resulted in anxiety, and she ended up eating to compensate for that anxiety. She said, “*From 15 to 16 years old I started to eat compulsively. So, I ate a lot. Everything was about eating.*” She also had polycystic ovarian syndrome, but she could not tell if that also contributed to her weight gain.

For two participants, their emotional health was impacted by experiencing weight stigma. As a child, Myrian (an adult) remembered facing bullying episodes at school related to weight stigma, making her feel anxious and causing her to eat as a result. She said, “*It [weight stigma] affects your esteem, your psychology. So, I think one way to improve this was to eat what I enjoyed eating.*” She remembered that in her adolescence, weight stigma increased. It was a period in which she had to wear men’s clothes because they fit her body better, affecting her even more: “*You get more depressed, more frustrated, you do not want to go out so much, your friendships dilute, all because of your appearance.*” Simone (elderly) also remembered being bullied because of her weight, and that the bullying made her feel sad and anxious. She said, “*It was [comments like] ‘beached whale’, it was... everything they [friends and family] put a fault on. I cried a lot because of it... not in front of them, but I felt very sad.*” Like Myrian, Simone also remembered eating more out of sadness caused by her experiences around weight stigma.

Financial stress causes emotional stress

To others, a stressful state of mind was related to financial struggles. Catia (an adult) remembered that when she had a more significant change in her weight, she had just had her first son and was constantly worried and anxious about being able to give him the best possible life. She reported, *“You have that worry about you wanting to give the best to your child and you see that the conditions are tight because you must pay the rent, you must eat. I worried about that.”* She said that her worry about her financial condition made her feel anxious, and she ended up eating to calm herself. Rosana (an adult) also linked poor mental health to financial difficulties. During a time when she had to move out from her house, her marriage was facing difficulties, and she had to increase her workload to help the family finances, she said she became depressed. She remembered, *“I did not even have time to go to a gym. I did not even have money because everything we earned was for our needs. And I did not have... Will either. You know when you are already down in life, and you do not want anything else?”* Again, we see the link to previous sections about depression but here, the emphasis was on financial precarity—which then caused depression and weight gain.

Marcia (an adult) had a similar narrative, remembering when she had to work to help her husband, take care of her daughters, and do the housework. As a result, she remembered being highly anxious. She worked as a seamstress and it was highly stressful work, in which she repeatedly had to stay up all night to deliver the service. She had insomnia for several years, and the combination of the lack of sleep with work and financial anxiety had consequences. She said, *“This anxiety, this lack of sleep, this concern, I took it all out on food—‘I am going to eat.’ I used to eat at odd hours because I worked until midnight, and I did not stop to make food. Then I ate bread, drank coffee, ate crackers, ate pizza, and another day an esfiha [an Arab dish consisting of flatbread cooked with a minced meat or cheese topping], but always working, working, working, like, Saturday, Sunday, day, and night. For many years I lived like*

that.” Some of this resonates with the section on life course changes that made it difficult for women to adopt habits they deemed to be healthy. Marcia also mentioned a theme found in Rosana’s narrative: She did not have time to worry about her health because other things were more important, such as paying the bills, and taking care of her children. Finally, Marcia discovered she had a thyroid problem, but it was only later that she had the time and money to deal with it.

Joana (an adult) also acknowledged that she was anxious because of financial difficulties. She wanted to help her grandparents, but she could not. She said, *“I thought I had an obligation to help them [financially], but I could not, and I think it messed with me?”* Finally, Eugenia (elderly) also recognized that her preoccupation with her finances affected her weight. She told us, *“The financial situation, I believe, once difficult, it will affect every step of our life, right?”* And she added: *“You must work so you can pay the rent, buy food, pay for the hospital, for the medicines. Then you no longer know what you do for a living, right? It is very complicated.”*

All in all, our participants stressed that distinct aspects contributed to their weight gain, including, initially, life changes, health problems, changes in their eating and using weight-loss drugs. Nonetheless, a more significant weight gain was related to their emotional health, which involved having depression, losing significant others, living in isolation, having abusive experiences (e.g., sexual, verbal, physical, because of weight stigma, among others), and facing financial struggles.

4. Discussion

In this article, the aim was to qualitatively investigate the multiple aspects involved in constructions of causality around a higher body weight from the perspectives and life experiences of Brazilian women who had undergone bariatric surgery. The findings present deeply contextualized data on how emotional, economic, and social dimensions of women’s lives all contribute to their narratives of how they ended up with a higher body weight. In these narra-

tives, women toggled between identifying multiple external influences and the idea of personal failure. In both perspectives, however, multi-layered types of suffering emerged as an important feedback loop: The suffering caused weight gain and was the result of weight gain.

While initial body change was related to modifications in the participants' diets, lifestyle changes and health issues, their narratives implied that other episodes had a more significant impact on changing their bodies, namely the adverse long-term effects of weight-loss drugs, health problems, and an array of intertwined tragic life events and negative emotional responses. Emotionally demanding life events ranged from losing significant others to suffering weight stigma to being in abusive relationships. Financial precarity amplified emotional stress, not only jeopardizing women's opportunities to plan and think more carefully about their eating, but also by leading to increased psychosocial stress, which, in turn, affected their weight.

In Brazil, previous research clearly indicates having a thin body is an important vehicle for social and economic advancement, especially for urban, middle-class women (e.g., ^[1,2]). Our study showed that this was the reality for some participants when they were younger: because of their thin bodies, they had unique job opportunities, such as modeling, which otherwise would not have been possible. This was not always viewed positively by participants, however. For Sonia, being considered a "symbolic object"—precisely because of her thin body—put enormous pressure on her. Despite the social advantages that this hegemonic ideal body brought her, including allowing her to be financially independent, the symbolism that she attached to it (i.e., that people only valued her because of her thin, socially desirable body) resulted in a mismatch between the beliefs and truths that she held about herself versus her perception of what others thought about her, affecting the concept of her own identity ^[18]. In this instance, this mismatch resulted in Sonia attempting to be as detached as possible from her thin body in a movement to reclaim her identity, resulting in a high-

er body weight. As she explained to us, however, a higher body weight came with its own symbolism, much of it negative.

It was evident in our participants' narratives that they suffered numerous and tragic losses. These losses included losing significant others, experiencing profoundly unhappy childhoods (because of sexual and/or physical abuse within the family, having to assume disproportional responsibilities from an early age, and experiencing weight stigma), losing relationships (because of infidelity and intimate partner violence), or losing physical capacity (because of accidents). Dias et al. ^[19] indicate that common psychological responses to such traumatic events include feelings of abandonment, lack of protection, impotence, anguish and the activation of psychological defences, which help an individual to feel "distanced" from their actual conflict. These responses seem to resonate with the narratives of our participants, coupled with an expressed reliance on certain types of foods and eating practices as coping mechanisms.

Another aspect that some of the participants seemed to have lost was the ability to easily interact with the external world, as many women reported the experience of being isolated indoors, with minimal interactions with other people and with little possibility of having any social life. Most participants linked this self-isolation to an internalized, fragile emotional state, which reduced their willingness to be outdoors. Nonetheless, these women also faced experiences that informed them that their fat bodies were not welcomed in Brazilian society. The experiences of weight stigma that the participants mentioned illustrate that exclusion. It is known that weight stigma has negative consequences ^[21]. In a national context like Brazil, where bodies are seen as "fixable" and as sites that individuals should strive to perfect ^[2], the moral implications of a fat body are particularly significant. This, in turn, amplifies felt weight stigma. Our study shows the lived experiences of women who were subjected to weight stigma, highlighting how it affected their self-esteem and emotional health, as well as hindering their opportunities to belong, make connections with their peers,

and have any genuine social life and support.

For example, some participants did routinely leave the house (many had to, for employment) but at the same time did not engage socially, cutting off friendships and romantic relationships. Others reported even greater isolation, in which they were locked up and isolated at home (and this was before the pandemic). Isolation at home put life in a state of suspension, in which there was no one to help them process their various anxieties. Food in this symbolic bunker played a vital role for many of the women. This self-isolation did not seem to be related to recent urban possibilities, such as certain types of employment, but to their higher body weight and their emotional state; in short, self-imposed isolation. These interpretations open the way for new studies on the entanglement between weight gain, isolation, stigma, and emotional issues, something that must have gained momentum during the COVID-19 pandemic.

Being isolated puts people with a higher body weight at higher risk for adverse health outcomes. Studies have demonstrated that socially isolated individuals are at increased risk for the development of cardiovascular disease, infectious illness, cognitive deterioration, and heightened inflammatory and metabolic responses to stress, such as elevated c-reactive protein^[22]. These studies were conducted with elderly populations, pointing to the need for future studies focusing on people with a higher body weight. Nonetheless, it is significant that some health problems that are automatically associated with higher body weight are also associated with social isolation. That poses the question: Does the higher body weight *per se* generate these health problems, or does the social isolation that many people with higher body weights face contribute to them (see also,^[23])? Ultimately, the findings of the present study suggest that if health professionals are indeed interested in identifying whether people with higher body weight are at risk for certain adverse health outcomes, asking simply about their chronic diseases seems insufficient. Finding out more about an individual's social support—or lack thereof—appears to add a critical

and independent perspective on their risk for adverse health outcomes.

In the Brazilian case study, one further aspect that negatively impacted participants' physical and emotional health was weight-loss drugs. The use of these medications, which are widely used and normalized despite their known risks, was an expressed motivation to reduce their weight. Paradoxically, it seemed that medications worsened their physical health and emotional status and caused them to gain even more weight than before. Indeed, a national focus on weight loss, typically through food restriction and weight-loss drugs, to deal with the "epidemic of obesity" identified as taking place in Brazil currently, may be worsening the situation. Nonetheless, it is recognized that there are novel categories of drugs, which are demonstrated to be potent and safe for the treatment of severe obesity^[24]. However, long-term safety and efficacy are yet to be investigated. Evidence suggests that weight loss is not vital to health improvements. For example, increasing physical activity and associated improvements in cardiorespiratory fitness are related to profound reductions in several cardiometabolic risk factors independent of weight^[25]. Also, waist circumference and visceral fat, two strong predictors of morbidity and mortality, can be reduced with increased physical activity, but with minimal or no accompanying overall weight loss^[26]. Interventions that focus on lifestyle changes (e.g., the Health at Every Size[®] movement) result in more comprehensive health changes, improvements in the participants' emotional health, and more sustainable weight loss than the strategies that strictly focus on weight loss^[27-29]. Healthcare professionals should consider the mental/emotional "side effects" for those individuals who "fail" to achieve substantial weight loss, including frustration, self-blame, and lack of adherence to long-term programs.

Women in this research mentioned that economic insecurity was detrimental to their emotional and physical health. Their narratives stressed that these situations forced them to accept extensive hours of work, which, in turn, affected their quality of life. For example, women reported that extensive work

hours resulted in a diet characterized by items that required little or no preparation, usually ultra-processed foods. The combination of these aspects mitigated their ability to be mindful of their eating and their health. Consequently, women said their weight increased in such situations. Persistent financial hardship is well-documented to have an impact on weight gain (e.g.,^[30]).

In most of the women's narratives, food assumed a primal role in their lives. It is possible to assume that, for most of them, their psychism used food as a mechanism to alleviate the tension of these negative experiences. This mechanism seemed fundamental to the participants' articulated ability to function and survive in the world while coping with feelings of rejection, abandonment, indignation, anger, despair, and loneliness when facing a myriad of negative experiences. In the end, this mechanism likely prevented some from committing suicide, and, paradoxically, food played a role in their survival. For most participants, these aspects were intertwined with other life events in different degrees of intensity and importance. Therefore, it was challenging for this study to "fragment" their experiences because their lives were not static. Following Brewis^[31,32], it is possible to discuss layered vulnerabilities in ways that acknowledge the synergistic relationship between inequalities rooted in lived hierarchical experiences—including, in Latin America, social inequalities that emerge from the capitalist system^[33]. The present study suggests that a variety of inequalities—including financial and familial hardship, as well as severe changes in life circumstances—seem to have made the participants more vulnerable to weight gain, within the overarching capitalist system. They had fewer opportunities to access the comprehensive resources that might have helped them manage their body weight, such as emotional and financial stability, social support, and opportunities to care for their health.

By observing the prerogative that sustains most of the strategies to reduce body weight, which focuses on promoting a negative energy balance, usually under the motto "eat less and move more", they,

at least, seem fragile, vague, and very unlikely to address the many inequalities that several people repeatedly face. It is also arguable that this exclusive focus on body weight adds another layer to the inequalities that were presented: Usually, the "blame" for the higher body weight is put on the person, who is seen as "undisciplined", with a "lack of willpower", and "lazy". One can wonder, however, how could these women, who worked extensive hours to take care of their family and pay the expenses on the day, be called "lazy" or "undisciplined"? It seems unfair to demand these people to "eat less and move more" when other worries were much more fundamental to them. The excessive focus on body weight also impacts the recommendations on mental care. Some practice guidelines for managing a higher body weight encourage a behavior therapy program because it facilitates meeting goals for energy intake and expenditure^[34,35]. Although there are benefits of these strategies to some people (see^[36]), they should be applied with caution because they seem to reaffirm the focus on individual responsibility (e.g., the aim is to "solve" someone's "lack of control" while eating). Given the complexity and density of the emotional aspects that the participants presented, the support to these matters must focus on strategies beyond behavioral change, understanding the psychodynamics involved in the emotional aspects that might surround this population. Thus, if broader strategies that address social inequalities, social support, and inclusive health and mental care are not seriously considered, the management of the "obesity epidemic" will continue to be palliative, insufficient, and weak, focusing on the wrong target (i.e., on individual responsibility).

5. Conclusions

While different life events were reported to have played a role in weight gain histories, their narratives highlighted that emotional aspects also played a vital role and, taken together, must be understood to have aggregated effects. The participants also stressed that the negative value attached to a larger body jeopardized their opportunities to connect with other people

and negatively interfered with their understanding of what it meant to be fully loved and accepted. These experiences are likely to have triggered psychological mechanisms (i.e., a defence mechanism evolved to minimize the potentially debilitating effects of threatening or suffering situations ^[18,19]), and although the somatic response used by the psychism was dysfunctionally directed to food, it is understood that this strategy was healthy because it maintained their functioning (or being alive) in the world. Finally, it was clear that the participants faced layered vulnerabilities (i.e., emotional, social, and financial dimensions that related to a myriad of experiences, including violence, abuse, trauma, depression, isolation, and weight stigma), having diminished opportunities to access the comprehensive resources to manage their body weight better. Strategies addressing people with a higher body weight must consider these inequalities to propose meaningful and feasible care options. For example, health professionals should include in their anamnesis the life history of their patients. By providing a safe space for patients to verbalize their trajectories, health professionals can access vulnerabilities and propose goal-oriented aims. For example, knowing that a person has faced weight stigma is important not only to acknowledge this as a relevant event with direct health consequences but also to help the person know how to protect himself/herself if the experience repeats. Understanding bodies' trajectories can help to shed light on discussions that focus on personal responsibility, on the management of obesity and can possibly help to reframe the priorities addressed to the treatment and prevention of this condition.

Author Contributions

Mariana Dimitrov Ulian contributed to the conceptualization, data analysis and writing of the original draft. Ramiro Fernandez Unsain contributed to the data analysis and approved the final version of the manuscript. Ruth Rocha Franco provided institutional access to the participants and approved the final version of the manuscript. Marco Aurélio Santo provided institutional access to the participants

and approved the final version of the manuscript. Alexandra Brewis contributed to the article writing and approved the final version of the manuscript. Sarah Trainer contributed to the article writing and approved the final version of the manuscript. Cindi SturtzSreetharan contributed to the article writing and approved the final version of the manuscript. Amber Wutich contributed to the article writing and approved the final version of the manuscript. Bruno Gualano contributed to the article writing and approved the final version of the manuscript. Fernanda Baeza Scagliusi provided funding acquisition, contributed to the article writing and approved the final version of the manuscript.

Conflict of Interest

There is no conflict of interest.

Data Availability Statement

Our data set is available in a public repository from FigShare, available from: https://figshare.com/articles/dataset/Semi-structured_interviews/23556324

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References

- [1] Goldenberg, M., 2010. The body as capital. Understanding Brazilian culture. *VIBRANT-Vibrant Virtual Brazilian Anthropology*. 7(1), 220-238.
- [2] Edmonds, A., 2010. *Pretty modern: Beauty, sex and plastic surgery in Brazil*. Duke University Press: Durham.
- [3] Silva, D.A.S., Nahas, M.V., de Sousa, T.F., et

- al., 2011. Prevalence and associated factors with body image dissatisfaction among adults in southern Brazil: A population-based study. *Body Image*. 8(4), 427-431.
DOI: <https://doi.org/10.1016/j.bodyim.2011.05.009>
- [4] Brewis, A.A., Wutich, A., 2019. *Lazy, crazy, and disgusting: Stigma and the undoing of global health*. Johns Hopkins University Press: Baltimore.
- [5] Celio, A.C., Pories, W.J., 2016. A history of bariatric surgery: The maturation of a medical discipline. *Surgical Clinics of North American*. 96(4), 655-667.
DOI: <https://doi.org/10.1016/j.suc.2016.03.001>
- [6] Ministério da Saúde. Portaria nº 424, de 19 de março de 2013. Redefine as diretrizes para a organização da prevenção e do tratamento do sobrepeso e obesidade como linha de cuidado prioritária da Rede de Atenção à Saúde das Pessoas com Doenças Crônicas (Portuguese) [Ministry of Health. Ordinance nº 424, of March 19, 2013. Redefines the guidelines for organizing the prevention and treatment of overweight and obesity as a priority line of care for the Health Care Network for People with Chronic Diseases] [Internet]. Available from: https://bvsms.saude.gov.br/bvs/saudelegis/gm/2013/prt0424_19_03_2013.html
- [7] Trainer, S., Brewis, A., Wutich, A., 2021. *Extreme weight loss: Life before and after bariatric surgery*. NYU Press: New York.
- [8] Groven, K.S., Ahlsen, B., Robertson, S., 2018. Stories of suffering and success: Men's embodied narratives following bariatric surgery. *Indo-Pacific Journal of Phenomenology*. 18(1), 1-14.
- [9] Nehushtan, H., 2023. The ethical work of weight loss surgery: Creating reflexive, effortless, and assertive moral subjects. *Culture, Medicine, and Psychiatry*. 47(1), 217-236.
DOI: <https://doi.org/10.1007/s11013-021-09756-z>
- [10] Throsby, K., 2008. Happy re-birthday: Weight loss surgery and the new me. *Body & Society*. 14(1), 117-133.
DOI: <https://doi.org/10.1177/1357034X07087534>
- [11] Trainer, S., Brewis, A., Wutich, A., 2017. Not 'taking the easy way out': Reframing bariatric surgery from low-effort weight loss to hard work. *Anthropology & Medicine*. 24(1), 96-110.
DOI: <https://doi.org/10.1080/13648470.2016.1249339>
- [12] Van Gemert, W.G., Severeijns, R.M., Greve, J.W.M., et al., 1998. Psychological functioning of morbidly obese patients after surgical treatment. *International Journal of Obesity*. 22(5), 393-398.
DOI: <https://doi.org/10.1038/sj.ijo.0800599>
- [13] Lupton, D., 2013. *Fat*. Routledge: New York.
- [14] Hennink, M., Kaiser, B.N., 2022. Sample sizes for saturation in qualitative research: A systematic review of empirical tests. *Social Science & Medicine*. 292, 114523.
DOI: <https://doi.org/10.1016/j.socscimed.2021.114523>
- [15] Achilli, E., 2005. *Investigar en antropología social. Los desafíos de transmitir un oficio (Spanish)* [Research in social anthropology. The challenges of passing on a trade]. Laborde Libros Editor: Rosario.
- [16] Braun, V., Clarke, V., 2006. Using thematic analysis in psychology. *Qualitative Research in Psychology*. 3(2), 77-101.
DOI: <https://doi.org/10.1191/1478088706qp063oa>
- [17] Rothblum, E.D., Solovay, S., 2009. *The fat studies reader*. NYU Press: New York.
- [18] Dias, V.R.C.S., 2006. *Psicopatologia e psicodinâmica na análise psicodramática (Portuguese)* [Psychopathology and psychodynamics in psychodramatic analysis]. Volume I. Ágora: São Paulo.
- [19] Dias, V.R.C.S., 2020. *Psicopatologia e psicodinâmica na análise psicodramática (Portuguese)* [Psychopathology and psychodynamics in psychodramatic analysis]. Volume VII. Ágora: São Paulo.
- [20] Collins, P.H., Bilge, S., 2016. *Intersectionality*. Polity Press: Cambridge.
- [21] Mustillo, S.A., Budd, K., Hendrix, K., 2013. Obesity, labeling, and psychological distress in late-childhood and adolescent black and white girls: The distal effects of stigma. *Social Psychology Quarterly*. 76(3), 268-289.

- DOI: <https://doi.org/10.1177/0190272513495883>
- [22] Barth, J., Schneider, S., von Känel, R., 2010. Lack of social support in the etiology and the prognosis of coronary heart disease: A systematic review and meta-analysis. *Psychosomatic Medicine*. 72(3), 229-238.
DOI: <https://doi.org/10.1097/PSY.0b013e3181d01611>
- [23] Brewis, A.A., 2014. Stigma and the perpetuation of obesity. *Social Science & Medicine*. 118, 152-158.
DOI: <https://doi.org/10.1016/j.socscimed.2014.08.003>
- [24] Christou, G.A., Katsiki, N., Blundell, J., et al., 2019. Semaglutide as a promising antiobesity drug. *Obesity Reviews*. 20, 805-815.
DOI: <https://doi.org/10.1111/obr.12839>
- [25] Lee, S., Kuk, J.L., Davidson, L.E., et al., 2005. Exercise without weight loss is an effective strategy for obesity reduction in obese individuals with and without Type 2 diabetes. *Journal of Applied Physiology*. 99, 1220-1225.
DOI: <https://doi.org/10.1152/jappphysiol.00053.2005>
- [26] Despres, J.P., 2006. Abdominal obesity: The most prevalent cause of the metabolic syndrome and related cardiometabolic risk. *European Heart Journal Supplements*. 8, B4-B12.
DOI: <https://doi.org/10.1093/eurheartj/sul002>
- [27] Ulian, M.D., Aburad, L., da Silva Oliveira, M.S., et al., 2018. Effects of health at every size® interventions on health-related outcomes of people with overweight and obesity: A systematic review. *Obesity Reviews*. 19(12), 1659-1666.
DOI: <https://doi.org/10.1111/obr.12749>
- [28] Ulian, M.D., Pinto, A.J., de Morais Sato, P., et al., 2018. Effects of a new intervention based on the health at every size approach for the management of obesity: The “Health and Wellness in Obesity” study. *PLoS One*. 13(7), e0198401.
DOI: <https://doi.org/10.1371/journal.pone.0198401>
- [29] Ulian, M.D., Pinto, A.J., de Morais Sato, P., et al., 2022. Health at every size®-based interventions may improve cardiometabolic risk and quality of life even in the absence of weight loss: An ancillary, exploratory analysis of the health and wellness in obesity study. *Frontiers in Nutrition*. 9, 598920.
DOI: <https://doi.org/10.3389/fnut.2022.598920>
- [30] Conklin, A.I., Forouhi, N.G., Brunner, E.J., et al., 2014. Persistent financial hardship, 11-year weight gain, and health behaviors in the Whitehall II study. *Obesity*. 22(12), 2606-2612.
DOI: <https://doi.org/10.1002/oby.20875>
- [31] Brewis, A.A., 2012. Obesity and human biology: Toward a global perspective. *American Journal of Human Biology*. 24(3), 258-260.
DOI: <https://doi.org/10.1002/ajhb.22250>
- [32] Brewis, A.A., Wutich, A., 2014. A world of suffering? Biocultural approaches to fat stigma in the global contexts of the obesity epidemic. *Annals of Anthropological Practice*. 38(2), 269-283.
DOI: <https://doi.org/10.1111/napa.12056>
- [33] Couto, M.T., Oliveira, E.D., Separavich, M.A.A., et al., 2019. The feminist perspective of intersectionality in the field of public health: A narrative review of the theoretical-methodological literature. *Salud Colectiva*. 15, e1994.
DOI: <https://doi.org/10.18294/sc.2019>
- [34] North American Association for the Study of Obesity, National Heart, Lung, and Blood Institute, National Institutes of Health (U.S.), NHLBI Obesity Education Initiative., 2000. The practical guide: Identification, evaluation, and treatment of overweight and obesity in adults. National Institutes of Health, National Heart, Lung, and Blood Institute, NHLBI Obesity Education Initiative, North American Association for the Study of Obesity: Bethesda, MD.
- [35] Fabricatore, A.N., 2007. Behavior therapy and cognitive-behavioral therapy of obesity: Is there a difference? *Journal of the American Dietetic Association*. 107(1), 92-99.
DOI: <https://doi.org/10.1016/j.jada.2006.10.005>
- [36] Kim, M., Kim, Y., Go, Y., et al., 2020. Multi-dimensional cognitive behavioral therapy for obesity applied by psychologists using a digital platform: Open-label randomized controlled trial. *JMIR mHealth and uHealth*. 8(4), e14817.
DOI: <https://doi.org/10.2196/14817>

Supplementary Material

In this supporting material we present the script that guided the semi-structured interviews”. This statement is not presented in this preview. If you find it relevant, please include, as well as the supplementary material that was sent to you.

In this Supplementary material we present the script that guided the semi-structured interviews. Initially, Author 1 presented herself, explained the objectives of the interview and asked in the participant consented with the recording of the interview. After consent, the interview initiated with sociographic information, and then followed to questions that were relevant to the research.

Sociodemographic information

- Please, can you tell me your full name?
- Please, can you tell me your age?
- Please, can you tell me the date of bariatric surgery?
- Please, can you tell me your height and current weight?
- Please, can you tell me what is your occupation?
- Please, can you tell me what is your schooling?
- Please, can you tell me which gender do you identify with?
- Please, can you tell me what is your sexual orientation?
- Please, can you tell me what is your marital status:
- Please, can you tell me how do you classify your skin color?
- Please, can you tell me with whom you live?
- Please, can you tell me your individual and family income? Who contributes the most to the family income?
- Please, can you tell me if you have children?

Script of questions

1. I would like to invite you to take a trip back in time. What are your childhood memories?
2. Do you remember what your body was like at

- that time? What was it like to deal with that body?
3. What about your eating habits, how were them like? Do you remember any food smells that you liked?
4. Do you remember having any health problems during this period? Did you look for a health professional (doctor, nutritionist, psychologist...) to follow up? How was this follow-up?
5. What were your childhood friendships like? Did you feel accepted in your group of friends?
6. Do you remember being bullied at this time? How was that?
7. Let's move on to your adolescence, what memories do you have?
8. What was your body like as you grew up? If there were changes, what do you think led to them?
9. Was your eating habits similar in adolescence as it was in childhood or were there any changes? If yes, which ones?
10. Have your friendships stayed the same or changed? What were those friendships like? Did you feel accepted in your group of friends?
11. Do you remember being bullied at this time?
12. Did you have any romantic relationships as a teenager? Can you tell me how it went? If you didn't have any relationship, did you have a reason for that?
13. Did you have any new health problems when you were a teenager? Did you look for a health professional (doctor, nutritionist, psychologist...) to follow up? How was this follow-up?
14. What do you like to do for fun? What are your interests? Was this like this before bariatric surgery?
15. Have your relationships changed as an adult? If yes, why?
16. What do you like most about your body and why? Was this like this before bariatric surgery?
17. What do you like least about your body and why? Was this like this before bariatric surgery?
18. Do you have any special care for your body? Was this like this before bariatric surgery?
19. How do you feel about your body these days? Are you happy or not with your current body? Why?

20. If you could change anything about your body before bariatric surgery, what would it be? And now?
21. How was the bariatric surgery process? That is, how was the decision to perform the procedure, how was the medical follow-up before the bariatric surgery? How did you feel in these accompaniments?
22. Was there any explanation about the bariatric surgery procedure? For example, did they explain the technique that would be used, what would be done, how the cut would be, etc.? How did you feel listening to these explanations?
23. What was your age and weight when you had bariatric surgery? What type of surgery was performed (sleeve, gastric bypass)?
24. What was the reaction of family and friends when they found out you were going to have the surgery? Did they participate in the decision or process in any way?
25. While waiting for bariatric surgery, did you prepare in any way or make any changes to your lifestyle? If yes, which ones? If not, what made you make that decision?
26. What is it like to be a person who has had bariatric surgery?
27. What do people tell you when you tell them you've had bariatric surgery?
28. Do you know other people who have had bariatric surgery? What do you think of the result they had with the surgery?
29. What does it mean to you to be "successful" in bariatric surgery? What do you think makes some people "successful" with surgery and others not? Do you consider your outcome a "success"?
30. In your opinion, do people who have had bariatric surgery eat differently from those who haven't? If so, what's the difference? There's no right answer, I just want to know your opinion.
31. According to you, is someone who has had bariatric surgery viewed differently from someone who hasn't? If yes, what's the difference? Again, there is no right answer, I would just like to hear your opinion.
32. Did people have an opinion about your body and your diet before the surgery? And now? How is it for you?
33. Did your body hinder you in any way before the surgery? And now?
34. Have you ever done anything to change your body before bariatric surgery, such as going on a diet, starting some physical activity, taking any medication, other types of surgeries, even if they are not for weight loss? Did you make these attempts on your own or with professional supervision (and which professionals - doctors, nutritionists, psychologists, physical educators)? What and how were these experiences?
35. How do you deal with your food today? What do you think of it? For example, who cooks, how is food organized in your house, who does the shopping (before and after the pandemic)?
36. About the post-operative food, who made the food for you? Was there any care with this food?
37. Do you do physical activity nowadays? Has it always been like this?
38. What is more difficult and what changes the most after bariatric surgery?
39. Do you think the changes in your body were related to changes in your life (such as changes in work, friendships, relationships)?
40. Did you have complications after bariatric surgery? How was that?
41. After having the bariatric procedure, did you continue to have any health problems you had before? Have any new health problems popped up?
42. Do you follow up with health professionals (doctors, nutritionists, psychologists, physical educators, etc.) after bariatric surgery? Do you notice differences in this service before and after bariatric surgery?
43. Do you have any fears these days?
44. What does it mean to gain weight for those who have had bariatric surgery?
45. Would you recommend the surgery to others?
46. Do you think the pandemic affected you? Did it affect the outcome of your surgery? As?
47. Is there anything you would like to add, is there anything I didn't ask you that you would like to talk about?