DOI: 10.12957/demetra.2016.22510

Idealizations and weight trajectories in overweight women: reflections for nutritional treatment

Idealização, marcos e trajetórias de peso em mulheres com excesso de peso: reflexões para o tratamento nutricional

Camila de Souza Meirelles[1]
Lucas Vieira Francisco[1]
Ana Carolina de Aguiar Moreira[1]
Rosa Wanda Diez-Garcia[1]

[1] Universidade de São Paulo, Faculdade de Medicina de Ribeirão Preto, Departamento de Clínica Médica, Laboratório de Práticas e Comportamento Alimentares – PrátiCA. Ribeirão Preto-SP, Brasil.

Correspondence
Rosa Wanda Diez-Garcia
E-mail: wanda@fmrp.usp.br

Abstract

This exploratory study has aimed to understand weight idealization, milestones and trajectories of overweight women who seek treatment for weight loss in outpatient nutrition clinics. For this purpose, we have compared measured weight, usual weight and desired weight of 167 overweight women treated in an outpatient clinic located at a tertiary hospital. We have also analyzed the information about the causes and the trajectory of weight changes recorded in 31 detailed records. The results have show that when the patients arrived at the service, they had class II obesity, which is higher than the one usually referred as BMI (class I obesity); also, they desired to reach a BMI classified as overweight. Most of the weight gain landmarks analyzed are events that promote changes in the social and eating context such as marriage, change in work routine, pregnancy, illness and family problems. Weight fluctuation (yo-yo effect) in different stages of life was recurrent in their weight history. Most patients (65.4%) reported that before starting the nutritional treatment, they held diets for weight loss without professional guidance. Through the analysis of patients' milestones and weight trajectories, we could verify the wide range of factors that influence the social construction of the body of each patient. Thereby, it is believed that research and understanding of this information can promote better adherence to nutritional treatment in the clinical context of establishing goals for weight loss.

Keywords: Obesity. Women. Body weight changes. Weight loss. Weight gain. Diet.

Resumo

Este estudo exploratório teve o objetivo de compreender a idealização, os marcos e as trajetórias de peso de mulheres com excesso de peso que buscam o tratamento para emagrecer em ambulatório de nutrição. Para isso, comparou-se o peso aferido, o habitual e o desejado de 167 mulheres com excesso de peso atendidas ambulatoriamente em hospital terciário e também analisou-se as informações sobre as causas e a trajetória de alterações de peso registradas com detalhes em 31 prontuários. Os resultados mostraram que as pacientes chegaram ao serviço com obesidade grau II, que é superior ao referido como IMC habitual (obesidade grau I), e desejavam atingir o IMC classificado como sobrepeso. Ao analisar os marcos de ganho de peso foi visto que a maioria deles são eventos que promovem mudanças no contexto social e alimentar, como casamento, alteração na rotina de trabalho, gravidez, doença e problemas familiares. A flutuação de peso (efeito ioiô) em diferentes fases da vida foi recorrente nas descrições do histórico de peso. Majoritariamente, as pacientes (65,4%) relataram que anteriormente ao início do tratamento nutricional já haviam realizado dietas para perda de peso sem orientação profissional. Através das análises dos marcos e trajetórias de peso das pacientes é possível verificar uma grande diversidade de fatores que influenciam cada paciente em sua construção social do corpo. Desse modo, acredita-se que a investigação e o entendimento dessas informações podem favorecer a adesão ao tratamento nutricional no contexto clínico de estabelecimento de metas para perda de peso.

Palavras-chave: Obesidade. Mulheres. Alterações do Peso Corporal. Perda de peso. Ganho de peso.

Introduction

Overweight in the population is the result of a dynamic and complex process involving lifelong eating changes that reflect personal history and social roles together with idealized and socially accepted aesthetic standards.[1-3]

Nutritional treatments are often focused on ideal weight although many studies recognize the importance of patients' satisfaction over the treatment goal[2,4] and that 5% to 10% of weight loss already presents metabolic benefits such as glycemic control, reduction of blood pressure and cholesterol levels and improvement of the quality of life.[5-8]

We perceive the world not only through the senses but also through the social and cultural meanings we ascribe to it. The way we perceive our own body is influenced by social and cultural factors in a given historical context.[9,10] Coexistence within a group shapes how we idealize the body and, consequently, how we want it, since norms and reference standards are modified through social relations.[11,12]

Such perceptions and idealizations also apply to constructions of weight and body concepts.[9] Often patients report weight conceptions that do not fit reality.[12-14] This distortion in weight perception and idealization may hinder the adoption of attitudes related to weight loss and affect motivation for treatment.[4,15] Frustration for not achieving the weight idealized by patients themselves can also be a discouraging factor.[16,17]

Thus, weight idealization and weight loss goals desired by patients are aspects that gain importance in nutritional treatments. Maynard et al. have analyzed tendencies of desired weight in the USA between 1994 and 2003 and concluded that obese women desire weight between 15% and 25% smaller than their current one.[12] The study by Foster et al. has concluded that women seeking treatment wish some weight loss of 32% from their current one and some loss of around 17% would be considered unsatisfactory.[13]

Weight history is another important component for treatment, since this report is linked to the way in which the patient perceives and records the weight gain.[18,19]

Weight cycling, also known in the literature as weight fluctuation, yo-yo dieting or yo-yo effect, is an element present in weight history, consisting of intentional weight loss and subsequent weight gain or vice versa. Andrade and collaborators have found 28.4% of weight cycling in patients assisted in an obesity outpatient clinic, varying the percentage of weight between 10% and 35% of the initial weight and the weight recovery rate is approximately 28.6%.[20]

The parameters to characterize this cyclical condition in terms of weight change magnitudes are not consensual in the literature.[20-22] The study by Schulz et al.[23] has concluded that weight changes over short periods of time have a substantial impact on the development of systemic arterial hypertension.

Weight changes can be understood in different contexts that impact the body social construction for the patient. In this sense, it is necessary to understand how patients with excess weight perceive the weight gain trajectory and how they idealize the desired weight. Therefore, the objective of this study is to describe weight trajectories and idealizations in overweight women seeking nutritional treatment.

Methodology

This is an exploratory study with a mixed methodology, in which quantitative data are related to socioeconomic data, measured, desired and usual weights and the qualitative approach refers to weight gain trajectories and milestones.

All women with endocrine-gynecological disorders associated with overweight and obesity treated at the Brazilian Gynecological Endocrinology Nutrition Outpatient Clinic at the Clinical Hospital at the Medical School in Ribeirão Preto, were studied in the period between 2007 and 2015.

The project was approved by the Research Ethics Committee (REC) of the Brazilian Medical School of Ribeirão Preto under document 10137/2010.

Quantitative data: Sample Characterization, Body Pattern and Idealization

The sample was characterized by a sociodemographic questionnaire containing information on age, marital status, education, per capita income, number of children and the desire to become pregnant at that time.

The weight measured (WM) was obtained on a digital scale (Brazilian brand Filizola®) with a capacity of 150 kilograms (kg) and an accuracy of 100 grams (g). And height was measured in meters through a stadiometer in the scale itself. Body Mass Index (BMI) was calculated from the body mass (kg) divided by the square of the body height (m) and classified according to the World Health Organization.[16]

The usual weight (UW) and desired weight (DW) were collected through open questions asked at the beginning of the care.

Statistical analyses were performed using the SPSS software version 17.0. For characterization of the sample, description of weight cycling prior to treatment and weight measured (WM), usual weight (UW) and desired weight (DW), mean, standard deviation and percentage frequency were used. In order to compare the measured, usual and desired weights, a analysis of variance (ANOVA) test was applied, followed by Student's t-test for paired samples, considering the effect of statistical significance of $p < 0.05$.

Qualitative data: Trajectory and milestones of weight gain

The qualitative data aimed to characterize the patients' perception of the evolution of weight in the course of their lives, identifying the main milestones of weight gain and attempts of weight loss previous to the nutritional treatment.

For this purpose, the following topics were evaluated in the medical records: *i)* "*Changes in body weight*," which investigates the weight changes history throughout life and the possible causes of variation (weight in childhood, adolescence, gestation, among other stages of life); *ii)* "*previous treatments*," which investigates possible attempts of weight loss previous to the current treatment (diets, professional help, physical activity, weight loss medications, among other methods).

Annotations on these responses were analyzed using a method proposed by Braun and Clark.[24] Words or excerpts, when reported exactly as the patient presented during the consultation, were provided in quotation marks and each citation shall be followed by the letter P (patient).

Results

Sample characterization

The sample consisted of 167 women aged between 18 and 42 years (average of 29.7 ± 6.4 years). Among these women, almost 70% had no children and 53% showed a desire to become pregnant. Approximately 75% of the patients presented polycystic ovarian syndrome as an gynecologic and endocrine disorder mainly associated with the following comorbidities: metabolic syndrome, diabetes mellitus, arterial hypertension, hypothyroidism and dyslipidemia. Ninety percent of the patients were obese (n = 152), of which 61% had BMI higher than 34.9 kg/m^2 (n = 102). Table 1 shows the patients' sociodemographic characteristics.

Table 1. Patients' sociodemographic characteristics. Ribeirão Preto, SP – 2016.

Variables	%
Age (years)	
Mean	29.7
Min – Max	18-42
Marital status	
Married	106
Single	28
Other	13
Education	
Up to 8 years of schooling	33.6
From 8 to 11 years of schooling	58.0
Over 8 years of schooling	8.3
Per capita income (BRL)	
Median	500
Min – Max	100-2000
BMI (kg/m^2)	
25-29.9	8.9
30-34.9	29.9
35-39.9	36.5
> 40	24.5

Body pattern, current weight and body idealization

Based on the weights and height evaluated, the BMIs were calculated for each variable. Means and standard errors are shown in Figure 1. It is noted that the mean BMI of the weight measured (37.1 ± 6.1 kg/m^2) is classified as Class II obesity. The mean BMI of the usual weight as Class I (32.3 ± 7.4 kg/m^2). And the mean BMI of the desired weight as overweight (26.7 ± 3.4 kg/m^2). It is observed that all means of BMI values are different from each other (M_{WM}: 37.1 ± 6.1; M_{UW}: 32.3 ± 7.4 kg; M_D: 26.7 ± 3.4 kg/m^2 | WM x UW F (1.323) = 38.79; p ≤ 0.000 T (159) = 9.73; p ≤ 0.000 | WM x DW F (1.323) = 73.44; p ≤ 0.000 T (159) = 10.23; p ≤ 0.000 | P x DW F (1.323) = 344.8; p ≤ 0.000 T (159) = 24.72; p ≤ 0.000).

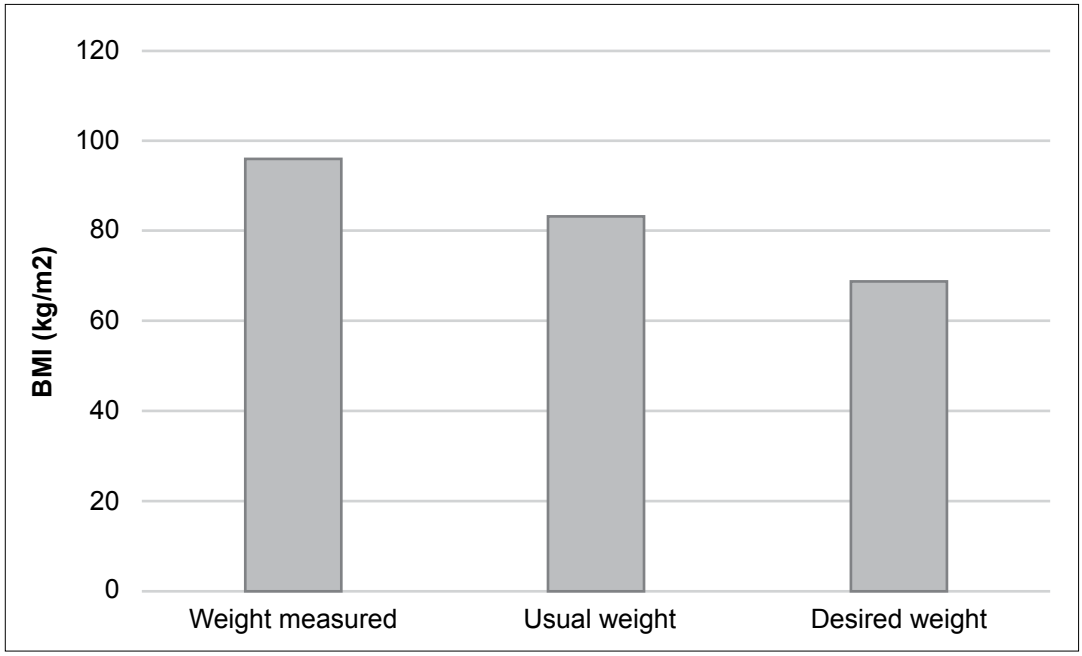

Figure 1. Comparison between the means and standard errors of Body Mass Index (BMI) calculated with measured weight, usual weight and desired weight. Ribeirão Preto, SP, 2016.

When analyzing the weight measured with the usual weight reported by the patients (WM x UW), it was seen that 54.8% (n = 90) of the women reported usual weight higher than the weight measured (≥ 105% of the weight measured), 34.1% (n = 56), usual weight similar to the weight measured (94.9% to 104.9% of the weight measured) and 7.9% (n = 13), usual weight lower than the weight measured (≤ 95% of the weight measured). Static analyses showed a significant difference between these two weights (measured and usual) in the sample studied (M_{WM}: 95.6 ± 18.0 kg; M_{UW}: 82.9 ± 11.1 kg; F (1.323) = 31.3; p ≤ 0.000 T (166) = 8.24; p ≤ 0.000).

When analyzing the usual weight with the desired weight (UW x DW), most of the patients (64.6%) wished to have their weight lower than the usual weight (≤ 95% of the usual weight), 21.9% had their weight similar to the usual weight (94.9% to 104.9% of the usual weight) and 11.5% reported having the desired weight higher than the usual weight (105-140% of the usual weight). Static analyses showed a significant difference between these two weights (usual and desired) in the sample studied (M_{UW}: 82.9 ± 11.1 kg; M_{DW}: 68.8 ± 10.1 kg; F (1.323) = 64.9; p ≤ 0.000 T (166) = 10.1; p ≤ 0.000).

And finally, when comparing the weight measured with the desired weight (WM x DW), it was observed that 166 patients (99.3%) reported willingness to lose weight. Of these, 65.8% (n = 109) wished to lose between 25% and 50% of the weight measured and the others between 6% and 24.9% of the weight measured. Static analyses showed a significant difference between these two weights (measured and desired) in the sample studied (M_{WM}: 95.6 ± 18.0 kg; M_{DW}: 68.8 ± 12.8kg; F (1.323) = 280.3; p ≤ 0.000 T (166) = 24.3; p ≤ 0.000). Figure 2 shows the BMI frequencies for each weight evaluated.

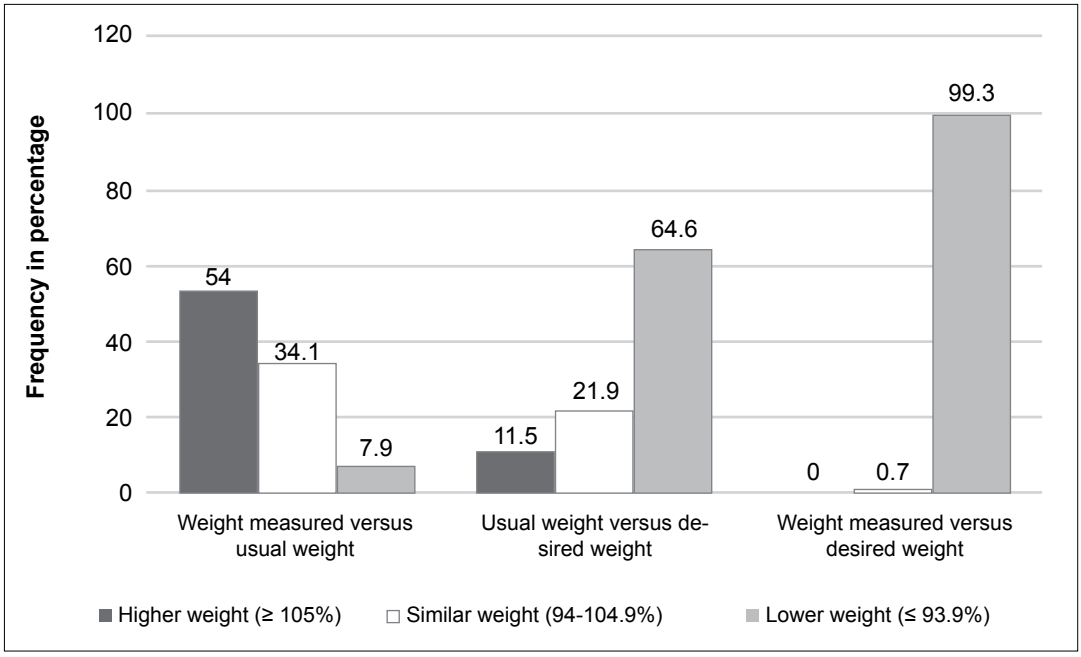

Figure 2. Frequency of patients in the comparisons between measured weight, usual weight and desired weight, considering the categories: weight greater than or equal to 105%, similar weight (94-104.5%) and weight less than or equal to 93.9%. Ribeirão Preto, SP, 2016.

Trajectory and milestones of weight gain

For qualitative analysis, medical records containing the information needed to carry out the proposed investigation (weight gain and previous body weight cycling milestones) were selected, totaling 31 medical records.

In the weight history, the magnitude of the weight values associated with a milestone stand out, as in the following excerpts: "In the last pregnancy she gained 20 kg," "10 kg in 3 years" and "15 kg in 8 months." The variation in reported weight gain was between 10 and 40 kg.

Childhood, pregnancy and marriage are the major temporal milestones mentioned as the onset of weight gain, which are tied to changes in personal life. Table 2 shows the reasons and examples reported.

Table 2. Weight gain reasons reported by patients and recorded in medical records by students and nutritionists at HC-FMRP (n = 31). Ribeirão Preto, SP, 2016.

Reasons	Examples of excerpts reported
Excess weight since childhood	The patient reports being already obese in childhood. (P8)
	She mentions being born overweight (5 kg) and having been an obese child. (P25)
	From childhood she was overweight. (P21)
Pregnancy	She was "skinny" until 18 years of age and after the first son, at 22 years of age, she gained 20 kg. (P1)
	In the last pregnancy she gained 20 kg and could not lose them. (P16)
Marriage	After marriage (at age 18) she gained weight gradually, then began to eat more often. (P7)
	The patient married at age 16 (75 kg) and in the subsequent 15 years she had a weight gain of 45 kg. (P2)
	She mentions weight of 96 kg in 2009, reached after four years of marriage, during which time she did not perform any physical activity and increased caloric intake. (P19)

continue

Use of medications	She reports that she has always been thin. In 2000, she began a hormone therapy and gained 25 kg in 3 months. (P18)
	She weighed 58/59 kg when she was 29 and began to gain weight when she started to use the "medication." (P9)
	She began to gain weight 6 years ago when contraceptive use stopped. (P10)
Onset of an illness	Two years ago she had a herniated disc problem, stopped physical activity and has been gaining weight ever since. (P20)
	She reported having gained weight after the diagnosis. (P9)
Life change	When she was seven years old, after menstruation, symptoms (body hair) began to appear that caused people to move away from her. Therefore she began to eat more and gained more weight. (P17)
	She reports that there have been changes in her life (she moved from home, changed jobs and became more sedentary). (P3)
	She gained 20 kg until she was 19 because she stopped performing physical activities. (P23)
Work routine	She associates weight gain with job-related anxiety and nervousness. (P30)
	8 years ago her weight gain was accentuated by change of routine because she began to work at the night shift. (P21)
Family problems	She returned to 120 kg after her mother's death. (P15)
	She reports that she began gaining weight at age 9 after her parents' separation. (P29)

P: Participant.

Yo-yo effect was recurrent in weight history descriptions. There are stories of weight gains that add up to considerable amounts, followed by tiny weight loss. For example, one patient reports weight loss of 15 kg and subsequent gain of 37 kg in one year. Another patient reported being "thin" until the age of 18 and with the pregnancy of the first child she had some gain of 20 kg, followed by weight loss. However, after the death of her father, she gained 27 kg and lost 4 kg with the use of medication.

Through the reports described, it is possible to observe that more than half of the patients (n = 18) presented weight loss prior to the current treatment. Of these, 77% (n = 14) mention cyclical loss and gain of weight (yo-yo effect) (Table 3).

Table 3. Reports of weight changes observed among patients (n = 31). Ribeirão Preto, SP, 2016.

	N	%
Report of previous weight loss	18	58.0
With weight gain	14	77.0
No mention of later gain	4	23.0
They do not report weight loss	13	42.0

The main treatments described for weight loss were changes in diet on their own (65.4%), diet and physical activity practice (42.3%) and use of medication (26.9%). Nutritional monitoring was not mentioned (34.6%) as a method for weight loss. It is observed that there was an overlap of the practices described above by the patients.

Discussion

In the present study, it was found that BMI classifications of measured, usual and desired weights are different from each other. Interestingly, patients arrive at the service with Class II obesity, which is higher than the usual BMI classification reported (Class I obesity) and wish to achieve BMI that is classified as overweight, that is, lower than the usual BMI.

Considering that the majority of the patients presented higher than usual measured weight, one seeks to understand the relationship of this weight gain with the milestones and the weight cycling trajectory. It is important to emphasize that milestones are events that promote changes in the patients' social and nutritional contexts, such as changes in work routine, illness and pregnancy.[25-27]

A recurrent milestone in the reports was marriage, which was also mentioned by Teachman[28] and Klos & Sobal[29] as predicting weight gain. Family problems can also influence weight gain, such as divorce and death of the spouse.[30]

In addition to temporal milestones, the presence of overweight from childhood has been emphasized and agrees with data published by Matos et al.,[31] which associate overweight and obesity in overweight adults to early childhood.

Understanding weight gain history is indispensable for the treatment and can promote a more adequate approach to patients' demands and experiences.[32] Such results signal the role of diet as marking lifestyles and alert health services and others for the need to address such periods in order to prevent body weight gain.

Analyzing the patients' weight history in this study, it is observed that the loss followed by weight gain (77.0%) is a frequent condition in the group studied. Among Americans, almost half of the population tries to lose weight. Among those who succeed, most gain weight again.[33] In a cohort of more than 3,500 women, 10% had severe weight cycling (three weight losses higher than 5 kg with subsequent gain).[21] A Brazilian study with women served in an obesity outpatient clinic has found weight cycling in 59.1% of the women. According to the authors, such weight oscillation may hinder adherence to treatment and raise the quitting rate.[20] Oliveira et al., on the other hand, have observed weight cycling in only 13% of patients studied. This lower percentage of patients with weight cycling may be associated with reports of medicament use (84.2%) by patients and/or because it is a bariatric surgery preoperative outpatient clinic, a factor that may motivate patients to lose weight.[22]

The majority of patients in this study (65.8%) wished to lose between 25% and 50% of the weight measured, which coincides with data published by Grave, in which 1,011 patients expected a 9 kg/m^2 BMI loss in one year of treatment and wished 32% less weight than the initial one. In this same study, when asked about a maximum acceptable BMI, mean weight 23% lower than the current one was reported.[2] However, the study by Befort et al. has shown that the women wished an average loss of 18.8% of the initial weight, that is, an average lower than the findings of this study.[15]

Considering that the great majority of the patients (99.3%) had a desire for expressive weight loss combined with ineffective previous attempts and new situations of weight gain, the possibility of corporal dissatisfaction is highlighted. Studies show that over 60% of obese women report dissatisfaction with body weight.[34,35]

Sometimes, body dissatisfaction can motivate search for weight loss treatments in order to, in addition to appeasing health issues, adapt to social impositions and aesthetic standards in force in a certain social group.[2]

Although beauty standards and aesthetic ideals are presented in women's discourse, they are often shaped by a variety of factors external to the subject. One factor that can shape such body idealization is the very dynamics of body aesthetic ideals in each social and historical context.[11,19] In this sense, a British study, when analyzing a population in 1999 and in 2007, associated the increase in obesity prevalence with reduction of overweight perception by the subjects studied.[11]

The media also has a central role that influences the construction of body patterns in contemporary society.[36] Subjects are daily exposed to television, movies, magazines and the Internet showing images of models and bodies in an ideal of beauty far from what is presented by the majority of the population.[3] Such cultural ideals can shape the public perception of ideal female bodies. The media plays a key role in increasing dissatisfaction with one's own body.[36] For example, the rate of exposure to soap operas and movies is associated with greater body dissatisfaction in adolescents.[37]

The discrepancy between the usual weight and the desired weight as well as the different findings related to weight gain milestones and the patients' body history trajectories are included in the information about the influence of social context and the media described in the literature. One can note the diversity of factors that influence the social construction of bodies for overweight patients. These different constructs may influence adherence to recommendations for weight loss because the patients' personal motivation is closely linked with the perception of one's own body weight.[14,18]

Conclusion

This study has shown that there is a discrepancy between the measured weight, the usual weight and the desired weight for women seeking nutritional treatment for weight loss. In addition, several factors that influence the construction of the patient's weight history were observed: different weight gain milestones, previous weight loss attempts and weight cycling over the course of life. Thus, it is pertinent to investigate and understand each patient's weight history in the clinical context of nutritional treatments, since this information can serve as a parameter to establish more effective goals and to improve adherence to weight loss treatments.

Acknowledgments

We thank the whole outpatient clinic team, Camila Cremonezi Japur, Fernanda Rodrigues de Oliveira Penaforte, Flávia Gonçalves Micali. We also thank Brazilian National Counsel of Technological and Scientific Development (Conselho Nacional de Desenvolvimento Científico e Tecnológico; CNPq, in the Portuguese abbreviation) for funding the RWDG productivity research scholarship.

References

1. World Health Organization. Obesity: preventing and managingthe global epidemia. Report of a World Health Organization Consultation. Geneva: WHO; 2000. 256 p. WHO Obesity Techinical Report Series.
2. Dalle Grave R, Calugi S, Magri F, Cuzzolaro M, Dall'aglio E, Lucchin L, et al. Weight loss expectations in obese patients seeking treatment at medical centers. Obes Res. 2004; 12(12):2005-12.
3. Campos MTA, Cecília MS, Penaforte FRO. Corpo-vitrine, ser mulher e saúde: produção de sentidos nas capas da Revista Boa Forma. Demetra 2016; 11:611-28.
4. Araújo CL, Dumith SC, Menezes AMB, Hallal PC. Measured weight, self-perceived weight, and associated factors in adolescents. Rev Panam Salud Publica 2010; 27(5):360-7.
5. National Heart, Lung, and Blood Institute. Obesity Education Initiative Expert Panel on the Identification E, and Treatmentof Obesity in Adults (US). Clinical guidelines on the identification, evaluation, and treatment of overweight and obesity in adults. Bethesda, MD: NHLBI; 1998.
6. Blackburn G. Effect of degree of weight loss on health benefits. Obes Res. 1995; 3(Suppl 2):211s-16s.
7. Goldstein DJ. Beneficial health effects of modest weight loss. Int J Obes Relat Metab Disord. 1992; 16(6):397-415.
8. Kanders B, Blackburn G. Reducing primara risk factors by therapeutic weight loss. In: Wadden TA, van Itallie TB, editor. Treatment of seriously obese patients. New York: The Guildford Press, 1992. p. 213-30.
9. Johnson F, Cooke L, Croker H, Wardle J. Changing perceptions of weight in Great Britain: comparison of two population surveys. BMJ 2008; 337(7664):a494.
10. Vigarello G, Penchel M. As metamorfoses do gordo: história da obesidade no Ocidente; da Idade Média ao século XX. Petropolis: Vozes; 2012.
11. Christakis NA, Fowler JH. The spread of obesity in a large social network over 32 years. N Engl J Med. 2007; 357(4):370-9.
12. Maynard LM, Serdula MK, Galuska DA, Gillespie C, Mokdad AH. Secular trends in desired weight of adults. International Journal of Obesity 2006; 30(9):1375-81.
13. Foster GD, Wadden TA, Vogt RA, Brewer G. What is a reasonable weight loss? Patients' expectations and evaluations of obesity treatment outcomes. J Consult Clin Psychol. 1997; 65(1):79-85.
14. Duncan DT, Wolin KY, Scharoun-Lee M, Ding EL, Warner ET, Bennett GG. Does perception equal reality? Weight misperception in relation to weight-related attitudes and behaviors among overweight and obese US adults. Int J Behav Nutr Phys Act. 2011; 8:20.
15. Befort CA, Allen Greiner K, Hall S, Pulvers KM, Nollen NL, Charbonneau A, et al. Weight-related perceptions among patients and physicians: how well do physicians judge patients' motivation to lose weight? J Gen Intern Med. 2006; 21(10):1086-90.
16. Elfhag K, Rossner S. Who succeeds in maintaining weight loss? A conceptual review of factors associated with weight loss maintenance and weight regain. Obes Rev. 2005; 6(1):67-85.

17. Cooper Z, Fairburn CG. A new cognitive behavioural approach to the treatment of obesity. Behav Res Ther. 2001; 39(5):499-511.

18. Fan M, Jin Y. The effects of weight perception on adolescents' weight-loss intentions and behaviors: evidence from the youth risk behavior surveillance survey. Int J Environ Res Public Health 2015; 12(11):14640-68.

19. Almeida GAN, Santos JE, Pasian SR, Loureiro SR. Percepção de tamanho e forma corporal de mulheres: estudo exploratório. Psicologia em Estudo 2005; 10(1):27-35.

20. Andrade BMC, Mendes CMC, Araújo LMB. Weight cycling during treatment of obese women. Peso flutuante no tratamento de mulheres obesas. Arq Bras Endocrinol Metab. 2004; 48(2):276-81.

21. Lahti-Koski M, Mannisto S, Pietinen P, Vartiainen E. Prevalence of weight cycling and its relation to health indicators in Finland. Obes Res. 2005; 13(2):333-41.

22. Oliveira SPSG, Pecis M, Aveline MK, Schmidt AC, Zaslavsky LMA, Souto KEP, et al. Flutuação de peso nos pacientes em tratamento de obesidade atendidos no ambulatório de endocrinologia do Hospital Nossa Senhora da Conceição entre 2002 e 2005. Revista da AMRIGS 2007; 3:190-7.

23. Schulz M, Liese AD, Boeing H, Cunningham JE, Moore CG, Kroke A. Associations of short-term weight changes and weight cycling with incidence of essential hypertension in the EPIC-Potsdam Study. J Hum Hypertens. 2005; 19(1):61-7.

24. Braun V, Clarke V. Using thematic analysis in psychology. Qualitative Research in Psychology 2006; 3:77-101.

25. Ponteiro FM, Bachion MM. Crenças de pacientes diabéticos acerca da terapia nutricional e sua influência na adesão ao tratamento. Ciênc Saúde Coletiva 2010; 15(1):151-60.

26. Toral N, Slater B. Abordagem do modelo transteórico no comportamento alimentar. Ciênc Saúde Coletiva 2007; 12:1641-50.

27. Viana V. Psicologia, saúde e nutrição: contributo para o estudo do comportamento alimentar. Análise Psicológica 2002; 4:611-24.

28. Teachman J. Body weight, marital status, and changes in marital status. J Fam Issues 2016; 37(1):74-96.

29. Klos LA, Sobal J. Marital status and body weight, weight perception, and weight management among U.S. adults. Eat Behav. 2013; 14(4):500-7.

30. Umberson D, Crosnoe R, Reczek C. Social relationship and health behavior across life course. Annu Rev Social 2010; 36:139-57.

31. Matos SMA, Jesus SR, Saliva SRDM, Prado MS, D'Innocenzo S, Assis AMO, et al. Velocidade de ganho de peso nos primeiros anos de vida e excesso de peso entre 5-11 anos de idade, Salvador, Bahia, Brasil. Cad Saúde Pública 2011; 27:714-22.

32. Fonseca MJM, França RF, Faerstein E, Werneck GL, Chor D. Escolaridade e padrões de ganho de peso na vida adulta no Brasil: Estudo Pró-Saúde. Rev Panam Salud Pública 2012; 32(5):376-80.

33. Kroke A, Liese AD, Schulz M, Bergmann MM, Klipstein-Grobusch K, Hoffmann K, et al. Recent weight changes and weight cycling as predictors of subsequent two year weight change in a middle-aged cohort. Int J Obes 2002; 26(3):403-9.

34. Sarwer DB, Wadden TA, Foster GD. Assessment of body image dissatisfaction in obese women: specificity, severity, and clinical significance. J Consult Clin Psychol. 1998; 66(4):651-54.

35. Cheung YTD, Lee, Ho SY, Li ETS, Lam TH, Fan SYS, et al. Who wants a slimmer body? The relationship between body weight status, education level and body shape dissatisfaction among young adults in Hong Kong. BMC Public Health 2011; 11:835.

36. Derenne JL, Beresin EV. Body image, media, and eating disorders. Acad Psychiatry 2006; 30(3):257-61.

37. Tiggemann M, Australia TFUoS, The Flinders University of South Australia GPOB, Adelaide 5001, South Australia, Pickering AS, Australia CPatUoS. Role of television in adolescent women's body dissatisfaction and drive for thinness. Int J Eating Disorders 2016; 20(2):199-203.

Received: April 15, 2016
Reviewed: September 18, 2016
Accepted: November 3, 2016