Rev Bras Cineantropom Hum

original article

DOI: http://dx.doi.org/10.5007/1980-0037.2017v19n5p608

Development of a Body Image Scale for Brazilian women

Desenvolvimento de uma Escala de Imagem Corporal para mulheres brasileiras

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Abstract – Body image is an important parameter of body satisfaction and needs to be evaluated with instruments developed and validated for a specific population. The aim of this study was to develop and validate a scale to assess body image in Brazilian women. A scale consisting of 11 silhouettes was prepared. Content validation was performed by seven experts from different health areas. To assess repeatability (two consecutive assessments) and reproducibility (reassessment after one week), an intentional sample stratified into four groups according to the characterization of Brazilian women regarding nutritional status was selected. Participants were 125 women aged 18-55 years and body mass index (BMI) between 18.5 and 38.6 kg/m2. The Kappa coefficient (k) was used to assess repeatability and reproducibility, considering the isolated responses of the current body, ideal body and the difference between them, assumed as satisfactory when k≥0.6. For all trials, α=0.05. During the content validation phase, the instrument developed was changed following the evaluators' suggestions and it was considered very suitable by six of seven evaluators. The Kappa coefficient was good in isolated issues and in the difference between them in both repeatability and reproducibility. The Body Image Scale was considered a valid content, with good repeatability and reproducibility. Considering the instrument as low cost and of rapid implementation/evaluation, it may be used to evaluate the body image of Brazilian women with BMI between 18.5 and 38.6 kg/m2, in different contexts.

Key words: Body image; Brazil; Validation studies.

Resumo – *A imagem corporal é um importante parâmetro de satisfação com o corpo e precisa ser avaliada com instrumentos desenvolvidos e validados para uma população específica. O estudo teve como objetivo desenvolver e validar uma escala para avaliação de imagem corporal em mulheres brasileiras. Foi elaborada uma escala composta por 11 silhuetas. Sete experts, em diferentes áreas da saúde fizeram a validação de conteúdo. Para avaliar a repetibilidade (duas avaliações consecutivas) e a reprodutibilidade (reavaliação após uma semana) foi selecionada uma amostra intencional estratificada em quatro grupos de acordo com a caracterização de brasileiras segundo o seu estado nutricional. Participaram 125 mulheres de 18 a 55 anos e IMC de 18,5 a 38,6 kg/m². Para avaliar a repetibilidade e a reprodutibilidade, foram consideradas as respostas isoladas do corpo atual, do corpo ideal e da diferença entre eles, por meio do Coeficiente Kappa (k), sendo que, seria considerado satisfatório k ≥ 0,6. Para todos os testes* α *= 0,05. Na fase de validação de conteúdo o instrumento desenvolvido, e alterado conforme sugestões dos avaliadores, foi considerado muito adequado por seis dos sete experts. A concordância Kappa foi boa nas questões isoladas e na diferença entre elas, tanto na repetibilidade, quanto na reprodutibilidade. A Escala de Imagem Corporal foi considerada com validade de conteúdo, apresentando uma boa repetibilidade e reprodutibilidade. Sendo um instrumento de baixo custo e rápida aplicação/avaliação, pode ser utilizado na avaliação da insatisfação com a imagem corporal de brasileiras com IMC entre 18,5 e 38,6 kg/m2, em diferentes contextos.*

Palavras-chave:*Brasil; Estudos de validação; Imagem corporal.*

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Received: March 17, 2017
Accepted: August 15, 2017

INTRODUCTION

More and more exposed bodies generate an incessant search for a massively popular pattern in the media as ideal: young, handsome and muscular for men and thin for women, without which it does not seem possible to find happiness and success[1,2]. This excess disclosure of a pattern to be followed affects, especially young women, the population that is the main target of this social "pressure" in search of the perfect body, which can trigger various inappropriate behaviors such as depression, eating disorders and / or excess physical activities[2-4]. Since inappropriate behaviors can be considered a large-scale problem[5], different areas of knowledge such as pedagogy, dance, medical sciences, psychology, philosophy, sociology, and physical education have addressed this issue through body image[6].

Body image is understood as the figuration of our body formed in our mind about the body dimensions and information of the level of body satisfaction or rejection, that is, the way in which the body presents itself to us, not only as a cognitive construct, but also as a representation of desires, emotions and socialization with other individuals[7-9]. Its evaluation can be made by scales of silhouettes that provide a body design in which the person should identify his / her current body and how he / she would like it to be, and the difference of these responses has been understood as a measure of body dissatisfaction[10]. This type of instrument takes advantage of being compared to the others, because in addition to being more practical, due to its rapid application and interpretation of results, it has the capacity to collect data from large groups[11], which makes it more suitable for population research. The choice of the appropriate instrument for each population is a delicate issue, since a scale must take into account ethnological characteristics without attributing singularities to its silhouettes[12].

Scagliusiet al.[13] validated for the Brazilian population a scale developed for the American population. However, this scale did not take into account the specific characteristics of Brazilians, which is a problem[12]. Although there is a test-retest reliability scale developed specifically for Brazilians[14], it presents some limitations, such as asymmetries and lateralized position in silhouettes, which are factors that may make it difficult for participants to choose at the time of test application[15].

After reviewing the instruments to evaluate body image in the Brazilian population, Carvalho and Ferreira[16] reported that due to the complexity and multidimensionality of the subject, there is still a need for an expressive number of instruments that evaluate body image in this population. Despite the advances in knowledge about the subject, a large number of studies use non-validated measures, so that there is still a methodological gap that makes it difficult to understand body image in the Brazilian population[17]. Therefore, the present study aims to develop and validate a scale for body image evaluation in Brazilian women. It should be pointed out that specific instruments for the Brazilian reality guarantee that the information obtained is reliable to the researched group, and can be applied

in epidemiological, clinical, prevention and health promotion, socio-political and cultural contexts[17,18].

METHODOLOGICAL PROCEDURES

Based on the existing instruments[13,14,19], a scale was elaborated with 11 silhouettes representative of female bodies, which proportionally increase from left to right in order to cover different body profiles of Brazilian women. The literature indicates that the ideal number of silhouettes should be greater than nine, since smaller number of silhouettes may limit the choice and very high number may make it difficult to choose because it causes confusion at the moment of evaluation[15,19]. In addition to the number of available silhouettes, this type of instrument requires some care, such as constant increase among adjacent silhouettes, the absence of body details that may act as distracting elements or reflect specific ethnicities[20], proportional change among body regions and constant height among silhouettes[19].

The instrument is composed not only of silhouettes but also of two objective questions: "Which image represents your current body?" And "Which image represents the body you would like to have?" (Figure 1). The difference between response of the second and first question expresses the level of body dissatisfaction. Body dissatisfaction can thus be numerically expressed, starting from zero, the same answer in both questions, that is, no dissatisfaction, reaching ten, maximum dissatisfaction. The numerical result can still be positive or negative, representing the desire to be greater or the desire to be smaller, respectively.

Seven experts in health areas related to movement (physical education, physical therapy, dance and medicine) were invited to participate in the content validation[21,22] of the Body Image Scale. These evaluators received the Body Image Scale for evaluation, where they were asked to answer a validation questionnaire composed of three objective questions, referring to clarity, ease of understanding and instrument applicability, as well as the analysis of each image separately. The evaluators were also able to add suggestions and proposed changes to the instrument in a descriptive way. After the instrument was changed according to suggestions, evaluators responded a second time to the same validation questionnaire.

Both studies that validated scales for Brazilians used 46[14] and 98[13] subjects, did not present sample calculation or data necessary to support the sample calculation of the present study. In order to overcome this limitation, a sample calculation was performed considering power of 95% and significance level of 5%. The values found by Di Pietro E Silveira[23] were used when validating the Brazilian version of the Body Image Questionnaire in 164 female university students. According to results of the sample calculation, performed in an electronic sample calculator from the Laboratory of Epidemiology and Statistics, Faculty of Medicine of the University of the State of São Paulo[24], an intentional sample was selected, recruited in the community through oral invitation, and was composed of

125 women. For the sample to be representative of the nutritional status of Brazilian women, four groups were stratified according to the Brazilian characterization according to their nutritional status and to IBGE[25], based on the Body Mass Index (BMI). Thus, the sample consisted of 4% of participants with BMI below 18.5 kg / m^2, 31% with BMI between 18.5 and 24.9 kg / m^2, 48% with BMI between 25 and 29.9 kg / m^2 and 17% with BMI greater than or equal to 30 kg / m^2. The present study was approved by the Ethics Research Committee of the University where it was developed, registered in the Brazil Platform under CAAE number 19256713.9.0000.5347. This research followed Resolution 466/12 of the National Health Council.

On the first day of data collection, all participants signed the Free and Informed Consent Form, shortly thereafter, body mass and height were measured using a portable digital scale with sensitivity of 100 g (TechLine) and a tape measure with sensitivity of 1 mm (Sanny, São Bernardo do Campo, São Paulo). Each participant then received the Body Image Scale represented in Figure 1, in a reserved place, and was asked to complete it. With the intention of measuring the instrument repeatability, immediately after, a new copy of the Body Image Scale was delivered. In order to avoid that the participant simply repeated the number that had been chosen in the previous application, based on the memory, in this new copy of the scale, the numbers of silhouettes were replaced by letters in decreasing order (from "k" to "a"). After exactly seven days, they were asked to re-fill only the original version (with numbered silhouettes) to test the instrument reproducibility[26].

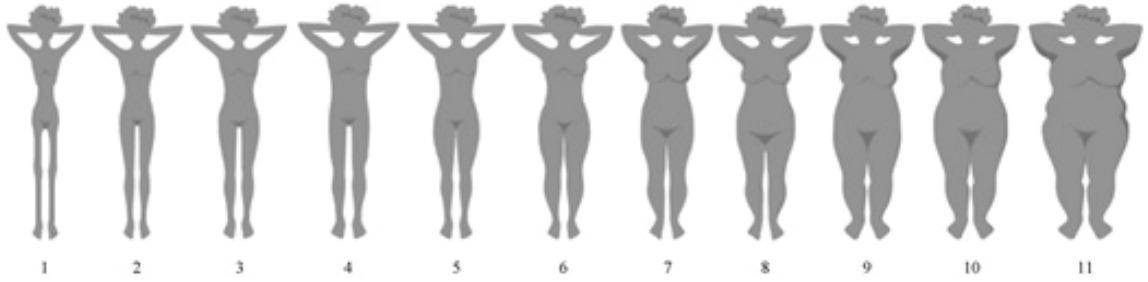

Figure 1. Body Image Scale

The repeatability (application and reapplication of instruments in successive moments) was evaluated from the two consecutive responses (Body Image Scale identified by numbers and letters) performed on the first day. Reproducibility (repeated application after one-week interval) was assessed by considering the responses of the first evaluation of the

first day versus the responses of evaluation made one week later, both with silhouettes identified by numbers. In order to evaluate repeatability and reproducibility, the isolated responses of the current body, ideal body and the difference between responses were considered. Statistical analysis was performed using SPSS for Windows software (version 20.0) using Kappa coefficient (k). In order to classify the Kappa coefficient results, the methodology proposed by Schlademann et al.[27] was adopted, which proposed the following categorization: poor ($k < 0.2$), intermediate ($0.2 \leq k < 0.4$), moderate ($0.4 \leq k < 0.6$), good ($0.6 \leq k < 0.8$), and very good ($k \geq 0.8$). To be considered satisfactory, Kappa should be greater than or equal to 0.6. In order to compare the results obtained with those found in literature, the Pearson and Spearman correlations were also calculated for repeatability and reproducibility data.

The answer to the first question of the Body Image Scale (which image represents your current body?) is loaded with subjective information and individual interpretations, influenced by cultural, regional, and other issues. In this perspective, there is no "gold standard" with which the answer can be compared in order to evaluate how representative of the bodies evaluated are the scale of silhouettes. As a way to overcome this limitation, and considering the BMI as an objective representation of the body image of participants, the correlation between this index and the answer to the first question of the Body Image Scale was calculated. It is understood that a strong correlation means that the choice made from the Body Image Scale is representative of body dimensions. To evaluate whether there was a correlation between the result reported on the scale as the current body and the BMI, a Spearman correlation coefficient was applied. The significance level adopted in all tests was 5%[28].

RESULTS

With the answers obtained in the first question, modifications to the Body Image Scale were performed according to the evaluators' suggestions. To finalize the content validation process, evaluators were asked to evaluate the new Body Image Scale. The seven experts answered the validation questionnaire; however, one of the evaluators did not answer the questions related to the individual evaluation of each image in none of the two evaluations (Table 1). In view of the favorable result of the majority of evaluators for the questions (1) clarity, ease of understanding and applicability of the instrument's scoring template model; (2) objectivity; and (3) individual evaluation of images, it was considered that the Body Image Scale (Figure 1) presented content validity, being able to move to the second phase of the study.

The mean data from each group stratified by the BMI percentage of Brazilian women, according to IBGE[25], allowed characterizing the study participants (Table 2).

Table 1. Results of the content validation of the body image scale by seven experts, presented by the frequency response in each version.

Question	Answers regarding the 1st version			Answers regarding the 2nd version		
	VA	A	LA	VA	A	LA
Regarding clarity, ease of understanding and applicability of the instrument, in general, you consider it:	2	5	0	6	1	0
	Y	N	P	Y	N	P
Do you believe that this instrument meets the goal of assessing how an individual perceives the shape and / or size of her body in individuals over 18 years?	5	0	2	6	0	1

	VA	A	LA	NR	VA	A	LA	NR
As for the representation of image 1, do you consider:	2	2	2	0	5	1	0	0
As for the representation of image 2, do you consider:	3	3	0	0	6	0	0	0
As for the representation of image 3, do you consider:	3	3	0	0	6	0	0	0
As for the representation of image 4, do you consider:	3	3	0	0	6	0	0	0
As for the representation of image 5, do you consider:	4	2	0	0	6	0	0	0
As for the representation of image 6, do you consider:	4	2	0	0	6	0	0	0
As for the representation of image 7, do you consider:	4	2	0	0	6	0	0	0
As for the representation of image 8, do you consider:	4	2	0	0	6	0	0	0
As for the representation of image 9, do you consider:	4	2	0	0	6	0	0	0
As for the representation of image 10, do you consider:	4	2	0	0	6	0	0	0
As for the representation of image 11, do you consider:	3	3	0	0	6	0	0	0

VA = very adequate; A = adequate; LA = little adequate; Y = yes; N = no, P = partly; NR = no response.

Table 2. Sample characterization

Groups by BMI (Kg/m²)	<18.5 n=5	18.5 to 24.9 n=39	25.0 to 29.9 n=60	≥30 n=21
Height (m)				
Mean	1.63	1.63	1.58	1.61
SD	0.08	0.08	0.06	0.05
Minimum	1.55	1.48	1.43	1.53
Maximum	1.73	1.78	1.71	1.72
Weight (kg)				
Mean	49.0	57.3	66.1	85.7
SD	4.7	7.1	6.6	8.8
Minimum	44.1	44.5	51.7	70.3
Maximum	55.1	70.0	78.9	99.3
BMI (Kg/m²)				
Mean	18.3	21.3	26.2	32.7
SD	0.2	1.4	0.9	2.5
Minimum	18.0	18.8	25.0	30.0
Maximum	18.4	21.4	28.9	38.6
Age (years)				
Mean	19	27	31	35
SD	1	8	10	12
Minimum	18	19	18	19
Maximum	21	48	55	55

SD = standard deviation

In the evaluation of the instrument repeatability and reproducibility, all evaluated items reached k equal to or higher than 0.6 (Table 3), values considered satisfactory according to pre-established criteria. Significant correlation (r = 0.67, p <0.05) was found between variables, body mass index (BMI) and the silhouette indicated as the one that best represents the current body (body figuration), performed by the Spearman's correlation coefficient.

Table 3. Repeatability and Reproducibility of the Body Image Scale.

	Test	Repe	Repro
Question 1	Kappa (k)	0.74	0.63
	Pearson (*r*)	0.96	0.95
	Spearman (ρ)	0.92	0.93
Question 2	Kappa (k)	0.60	0.65
	Pearson (*r*)	0.79	0.84
	Spearman (ρ)	0.75	0.79
Difference	Kappa (k)	0.71	0.68
	Pearson (*r*)	0.94	0.93
	Spearman (ρ)	0.93	0.91

DISCUSSION

The results showed that the instrument was considered very adequate by six of the seven experts that have previously evaluated it, in the content validation phase. Since these professionals are from different areas, the importance of these results is highlighted, characterizing a possible multidisciplinary applicability of the developed instrument. Through the results obtained in the test-retest, it could be inferred that the scale is valid considering the kappa agreement between the two consecutive evaluations (repeatability) and between the two evaluations with a seven-day interval (reproducibility).

Other scales have already been suggested to evaluate body image, but the Kappa index was not the statistic used for validation[14,20,29]. These studies use only correlation to evaluate repeatability and reproducibility, but correlation measures the linear relationship between two variables, while the Kappa index measures the degree of agreement present in multiple evaluations of the same phenomenon, being more indicated for this purpose[28,30]. In addition, the Pearson's correlation is indicated for parametric data[28], in case of validation of scales, it is imperative that researchers recognize the non-interval nature of the scale and use non-parametric statistics in their analyses[19].

In order to establish a correlation between the results of the present study and others already published, Pearson and Spearman's correlation coefficients were also calculated. When comparing the values obtained in the correlations with those found in literature, better results were observed in the present study in comparison to the other studies[13,14,20] which, like this, propose scales of silhouettes for specific populations. For example, Thompson and Gray[20] showed high Pearson correlation r = 0.78, while

Goldberg et al.[30] evaluated through the Spearman test the reproducibility of the silhouette referred to as current, obtaining r = 0.69 and ideal, with r = 0.31, but they define the scale as validated due to p <0.05 found in the correlation, even though this value is not indicated for the interpretation of the correlation results[28]. In scales available to Brazilians[13,14], Scagliusiet al.[13] considered their instrument to be valid through correlation of BMI with participants' responses (current body r = 0.76 and ideal body r = 0.72). Kakeshitaet al.[14] evaluated the reproducibility through Pearson's correlation and Student's t-test, and the correlation ranged from r = 0.92 in the test-retest of the body silhouette pointed as current and r = 0.85 in the test-retest of the desired body. The t-test was not significant in none of the comparisons.

It is also possible to observe Spearman's positive correlation r = 0.67 between participant's BMI and the response indicated as representative of the current body, which indicates good correlation between variables, similar to results found using the Pearson's correlation by Thompson and Gray[20] r = 0.59, and by Kakeshitaet al.[14] who found r = 0.84.

The lack of an expert in the field of psychology during the content validation phase can be pointed out as a study limitation, as well as the lack of construct validity. Other limiting aspects are due to the fact that only residents of Rio Grande do Sul participated in the sample, and the fact that participants with more severe degrees of thinness and obesity were not included in the sample, and there is no answer option for those who do not they feel represented by none of the silhouettes.

CONCLUSIONS

The Body Image Scale was developed and considered with content validity, presenting good repeatability and reproducibility, as well as a good correlation between the Silhouette indicated as the current body and the individual's BMI. As applicability, it could be considered that the instrument has an accessible and simple evaluative character and could be easily applied to assist in the process of evaluating body image dissatisfaction among adult Brazilians with BMI between 18.5 and 38.6 kg / m^2, reproducing results similar to those found in literature. In addition, as it is a low-cost and rapid application / evaluation instrument, it could be used in epidemiological, clinical, health prevention or promotion, socio-political and cultural contexts.

REFERENCES

1. Albino BS, Vaz AF. O corpo e as técnicas para o embelezamento feminino: esquemas da indústria cultural na Revista Boa Forma. Mov 2008;14(1):199-223.
2. Maldonado GDR. A educação física e o adolescente: a imagem corporal e a estética da transformação na mídia impressa. Rev Mackenzie Educ Fís Esporte 2006;5(1):59-76.
3. Damasceno VO, Lima JRP, Vianna JM, Vianna VRA, Novaes JS. Tipo físico ideal e satisfação com a imagem corporal de praticantes de caminhada. Rev Bras Med Esporte 2005;11(3):181-86.

4. Oliveira FP, Bosi MLM, Vigário PS, Vieira RS. Comportamento alimentar e imagem corporal em atletas. Rer Bras Med Esporte 2003;9(6):348-56.
5. Sante AB,PasianSR. Imagem Corporal e características de personalidade de mulheres solicitantes de cirurgia plástica estética. Psicol Reflex Crit 2011;24(3):429-37.
6. Turtelli LS, Tavares MCGCF, Duarte E. Caminhos da pesquisa em imagem corporal na sua relação com o movimento. Rev Bras Cienc Esporte 2002;24(1):151-66.
7. Cash TF, Smolak L. Body image: A Handbook of Science, Practice, and Prevention. 2nd. New York; The Guilford Press; 2011.
8. Quadros TMB,Gordia APM,Rebolho C, SilvaDAS, Ferrari EP,Petroski EL. Imagem corporal em universitários: associação com o estado nutricional e sexo. Motriz 2010;16(1):78-85.
9. Schilder P. A imagem do corpo: as energias construtivas da psique. 3.ed. São Paulo; Martins Fontes; 1999.
10. Hirata E,Pilati R. Desenvolvimento e validação preliminar da Escala Situacional de Satisfação Corporal- ESSC. Psico-USF 2010;15(1):1-11.
11. Fallon AE, Rozin P. Sex differences in perceptions of desirable body shape. J Abnorm Psychol 1985;94(1):102-5.
12. Moraes C, Anjos LAD, Marinho SMSA. Construção, adaptação e validação de escalas de silhuetas para autoavaliação do estado nutricional: uma revisão sistemática da literatura. Cad Saúde Públ 2012;28(1):7-19.
13. Scagliusi FB, Alvarenga M, Polacow VO, Cordás TA, Queiroz GKO, Coelho D, et al. Concurrent and discriminant validity of the Stunkard's figure rating scale adapted into Portuguese. Appetit 2006;47(1):77-82.
14. Kakeshita IS, Silva AIP, Zanatta DP, Almeida SS. Construção e fidedignidade teste-reteste de escalas de silhuetas brasileiras para adultos e crianças. Psic Teor Pesq 2009;25(2):263-70.
15. Ambrosi-Randic N, Pokrajac-Bulian A, Takišić V. Nine, seven, five, or three: how many figures do we need for assessing body image? Percept Mot Skills 2005;100(2): 488-92.
16. Carvalho PHB, Ferreira MEC. Imagem Corporal em Homens: Instrumentos Avaliativos. Psic Teor Pesq 2014;30(3):277-85.
17. Laus MF, Kakeshita IS, Costa TMB, Ferreira MEC, Fortes LS, Almeida SS. Body image in Brazil: recent advances in the state of knowledge and methodological issues. Rev Saude Publica 2014; 48(2):331-46.
18. Conti MA, Slater B, Latorre MRDO. Validação e reprodutibilidade da escala de evaluación de insatisfación corporal para adolescentes. Rev Saude Publica 2009;43(3):515-24.
19. Gardner RM, Friedman BN, Jackson NA. Methodological concerns when using silhouettes to measure body image. Percept Mot Skills 1998;86(2):387-95.
20. Thompson MA, Gray JJ. Development and validation of a new body-image assessment scale.J Personal Assess 1995;64(2):258-69.
21. Benedetti G, Candotti CT, Gontijo KNS, Bampi GM, Loss JF. Desenvolvimento e validação de um método de avaliação do nível de prática no método Pilates por meio de exercícios do próprio método. Fisioter Bras 2015;16(2):137-44.
22. Gontijo KNS, Candotti CT, Feijó GS, Ribeiro LP, Loss JF. Dynamic evaluation method of lower limbs joint alignment (MADAAMI) for dancers during the plié. Rev Bras Cienc Esporte 2017;39(2):148-59.
23. Di Pietro M, Silveira DX. Internal validity, dimensionality and performance of the body shape questionnaire in a group of Brazilian college students. Rev Bras Psiquiatr 2009;31(1):21-24.
24. Pereira JCR, Paes AT, Okano V. Questões comuns sobre Epidemiologia, Estatística e Informática. 2000. Disponível em: <http://www.lee.dante.br/pesquisa/metodologia/revista_idpc_2000.pdf> [2014 mai 18].
25. IBGE, Instituto Brasileiro de Geografia e Estatística. Pesquisa de Orçamentos Familiares, 2010. disponível em: <http://www.ibge.gov.br/home/estatistica/populacao/condicaodevida/pof/2008_2009_encaa/pof_20082009_encaa.pdf> [2016 jan 18].

26. Pedhazur EJ, Schmelkin LP. Measurement, design and analysis: an integrated approach. Hillsdale; Lawrence Erlbaum Associates. 2013.
27. Schlademann S,Meyer T,Raspe H. The test-retest reliability of a questionnaire on the occurrence and severity of back pain in a German population sample. Int J Public Health 2008;53(2):96-103.
28. Field, A. Descobrindo a estatística usando o SPSS. 2 ed. Porto Alegre; Artmed; 2009.
29. Cohen J. Weighted kappa: nominal scale agreement with provision for scaled disagreement or partial credit. Psychol Bull 1968;70(4):213-20.
30. Goldberg JP, Lenart EB, Bailey SM, Koff E. A new visual image rating scale for females: correlations with measures of relative fatness, weight dissatisfaction. and body-esteem. Percept Mot Skills1996;82(3 Pt 2):1075-84.

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