Actualidades en Psicología, 40 (141), July-December, 2026, 101-112 ISSN 2215-3535
https://doi.org/10.15517/ap.v40i141.61958

Actualidades enPsicología

Universidad de Costa Rica
www.revistas.ucr.ac.cr/index.php/actualidades

Factors Associated with Appearance-based Social Comparison in Brazilian College Women

Comparação social da aparência física e fatores associados em universitárias brasileiras

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Received: 18/09/2024. Accepted: 13/05/2026.

Abstract. *Objective*. The aim of this paper was to examine the association between appearance-based social comparison and eating disorder symptoms, body satisfaction, depressive symptoms, drive for muscularity, self-esteem, and physical activity in Brazilian college women. *Method*. The participants were 542 college women aged 18 to 30. A questionnaire was used to collect information on appearance comparisons, eating disorders symptoms, body satisfaction, depressive symptoms, drive for muscularity, self-esteem, and physical activity. A multiple linear regression was conducted adjusted by age, marital status, body mass index, and economic level. *Results*. The model that best explained the appearance comparisons scores variation included eating disorders symptoms (β= .385; p< .001), body satisfaction (β= -.200; p< .001), depressive symptoms (β= .169; p< .001), and drive for muscularity (β= .091; p< .05). Conclusion. Eating disorders, depressive symptoms, drive for muscularity, and body satisfaction were associated with appearance comparisons.

Keywords. Behaviour, Brazil, mental health, women

Resumo. *Objetivo*. Examinar as associações entre comparação social da aparência física e os sintomas de transtornos alimentares, a satisfação corporal, os sintomas depressivos, o desejo de muscularidade, a autoestima e a atividade física em mulheres universitárias brasileiras. *Método*. Participaram 542 mulheres com idades entre 18 e 30 anos. Um questionário foi utilizado para coletar informações sobre as variáveis de interesse. Uma regressão linear múltipla foi conduzida ajustada por idade, estado civil, índice de massa corporal e nível econômico. *Resultados*. O modelo que melhor explicou a variação dos escores das comparações da aparência incluiu transtornos alimentares (β = .385; p < .001), satisfação corporal (β = -.200; p < .001), sintomas depressivos (β = .169; p < .001) e busca pela muscularidade (β = .091; p < .05). Conclusão. Transtornos alimentares, sintomas depressivos, busca pela muscularidade e satisfação corporal foram associados às comparações da aparência.

Palavras-chave. Brasil, comportamento, saúde mental, mulheres

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Introduction

Human physical appearance has meanings based on factors and characteristics that are or are not socially valued, and on the relevance of having or not having these characteristics (Cash & Smolak, 2015). Socially and culturally determined body image can be defined as the way people experience their own body, especially but not exclusively their physical appearance (Cash, 2012). Given the experiences that manifest as person-environment-behavior transitions, body image tends to change throughout life (Cash & Smolak, 2015).

Appearance and body image have become prominent issues worldwide, but especially in contemporary Western societies, and their importance can be seen in the emphasis placed on physical appearance in different media outlets (Holland & Tiggemann, 2016, 2017; Tiggemann, 2010). Concern about appearance plays a central role in the self-concept of many people, mainly girls and women, leading to constant comparison behavior of their own and others' appearance as they internalize established and widespread social ideals of appearance (Halliwell et al., 2011).

The Social Comparison Theory, proposed by Festinger (1954), suggests that individuals compare themselves to others to understand their position or value in society, through physical characteristics, skills, and opinions. This comparison, when related to physical aspects, influences women's body image. The act of comparing oneself, in itself, contributes to lower body satisfaction and more frequent thoughts about diet and exercise (Fardouly et al., 2017), in addition to behaviors that can be potentially harmful to health (Cash, 2015), such as compulsive exercise (Ruiz-Turrero et al., 2022a), use of medication for weight loss (Laus et al., 2014), performance of aesthetic surgical procedures (Swami et al., 2011), and dieting without professional monitoring (Alvarenga et al., 2010; Martins et al., 2001). These behaviors, in turn, can lead to several negative outcomes, such as the development of eating disorders like anorexia and bulimia (Delinsky, 2011), which are associated with a higher risk of premature death due to medical complications and high suicide rates (Delinsky, 2011).

Younger women tend to present greater body dissatisfaction when compared to older women, especially those younger than 30, who generally have less realistic standards of comparison, and coinciding with the period of entry into higher education, the context in which most research on body image has been conducted (Grogan, 2011).

Although appearance-based social comparison has frequently been examined as a predictor of body dissatisfaction and eating-related problems (Myers & Crowther, 2009), evidence suggests that engagement in appearance-based comparisons may also can be influenced by individual psychological characteristics and appearance-related experiences (Thompson et al., 1999; Tylka & Sabik, 2010). In this sense, appearance-based social comparison can be understood not only as a risk factor for negative body image outcomes but also as a behavioral process shaped by psychosocial factors. Furthermore, recent studies have highlighted the reciprocal nature of these relationships, indicating that body image concerns and eating-related symptoms may both result from an contribute to greater engagement in appearance-based social comparison (Rodger et al., 2015; Portingale et al., 2024).

Given evidence that appearance-based social comparison is associated with several aspects of physchological well-being and body image, it is important to understand which factors are independently associated with this behavior among college women. Therefore, the primary objective of this study was to examine the association between appearance-based social comparison and eating disorder symptoms, body satisfaction, depressive symptoms, drive for muscularity, self-esteem, and physical activity in Brazilian college women. Based on previous literature, we hypothesized that higher levels of eating disorder symptoms, depressive symptoms, drive for muscularity, and physical activity would be positively associated with appearance-based social comparison, whereas greater body satisfaction and self-esteem would be negatively associated with appearance-based social comparison.

Method

This observational cross-sectional study was conducted among college women Brazilian between 09/2018 and 11/2018. As a cross-sectional study design, all variables were assessed at a single time point. The study followed the ethical guidelines outlined in the Declaration of Helsinki and was approved by the Human Research Ethics Committee at Santa Catarina State University (Protocol number 3.012.574/2018).

Participants

The study population consists of Brazilian college women. The minimum sample size was calculated based on the validation study of the Portuguese version of PACS-R (Claumann et al., 2021). Recommendations for analyzing the factorial structure of assessment instruments through exploratory and confirmatory factor analysis suggest having at least ten participants per instrument item (ITC, 2016). Considering that PACS-R comprises 11 items, at least 110 participants were required for exploratory factor analysis and 110 for confirmatory factor analysis, totaling 220 college women. An additional 30% was added to account for potential losses, resulting in a minimum sample of 286 students. The study included college women aged between 18 and 30 years. Pregnant students were excluded from the study.

A total of 937 college women participated in the study. Data were collected through self-administrated questionnaires completed either in person at the participants's universities or through an electronic survey form. The use of both recruitment and data collection strategies enabled the inclusion of participants from different regions of Brazil, resulting in a more heterogeneous sample.

Participants were recruited from all five Brazilian geographic regions. Most participants were from the South region (93.7%), followed by the North (4.2%), Northest (1.7%) and Southest (0.4%) regions. No participants were recruited from the central-West region.

For the analyses, participants with missing data for one or more study variables were excluded (economic level = 181; eating disorder symptoms = 66; physical activity = 52; depressive symptoms = 37; drive for muscularity = 25; appearance comparison = 15; BMI = 6; self-esteem = 5; age = 4; marital status = 3; and body satisfaction = 1). Consequently, the final analytical sample consisted of 542 college women.

The final sample size provided adequate statistical power for the analyses performed. Based on an effect size of 0.20 and a significance level of 5%, the multiple linear regression analysis achieved statistical power greater than 80% to detect the association of interest.

Procedures

For data collection, which occurred face-to-face, authorization to carry out the research was requested from the center directors of a public university in southern Brazil, and from the respective heads of department of the undergraduate courses. Then, the authorization of the professors was requested to apply the questionnaire in a classroom during class time at the university. On scheduled dates and times, all the women present were invited to take part in the research and those who agreed to participate answered the questionnaire.

For data collection, using an electronic form, the university students who participated in the face-to-face sessions were asked to indicate the contact details of other women they knew who were undergraduate students in any area of knowledge, so that they could also be invited to take part in the research. These women were contacted through the e-mail address provided by the participants in person. In the e-mail message, they received explanations about the research, were invited to participate by filling out the questionnaire in an electronic form, and to spread the word about the research to other women they knew who were undergraduate students. Thus, the snowball method was used to reach other college women to participate by filling out the electronic form.

All study participants, regardless of the mode by

which they were included in the sample (face-to-face or electronic form), received explanations about the research, participated voluntarily, and signed the Informed Consent Form.

The questionnaire answered by all college women contained information about age (in complete years), marital status (with partner or without partner), economic level score (ABEP, 2015), self-reported weight (in kilograms) and height (in meters) to calculate the body mass index [BMI (kg/m2)]. Economic level score ranged from zero to 100, with higher scores indicating higher socioeconomic status.

These variables were used for sample characterization and adjustment in the statistical analysis. In addition, information was collected regarding appearance-based social comparison (dependent variable), body satisfaction, eating disorder symptoms, depressive symptoms, self-esteem, drive for muscularity, and physical activity (independent variables).

Instruments

The Physical Appearance Social Comparison Scale - Revised (dependent variable) was developed by Schaefer and Thompson (2014) and validated for Brazilian college students by Claumann et al. (2021). The instrument comprises 11 items that assess the frequency of appearance-based comparisons in different social contexts, rated on a five-point scale ranging from "never" (0) to "always" (4). A mean score for all items was obtained. Higher scores, suggest greater engagement in appearance comparisons. The instrument presented adequate internal consistency, with a McDonald's omega value of .95 (Claumann et al., 2021).

The Multidimensional Body-Self Relations Questionnaire-Appearance Evaluation Subscale (MBSRQ-AE), adapted for the Brazilian population (Laus et al., 2020) was used to assess the degree of body satisfaction/dissatisfaction. The subscale has five items rated on a five-point scale ranging from "strongly disagree" (1) to "strongly agree" (5). A mean score for all items was obtained. Higher scores suggest greater body satisfaction. The subscale showed adequate internal consistency, with a Cronbach's alpha of .83 (Laus et al., 2020).

Eating disorder symptoms were investigated by the Eating Attitudes Test (Garner et al., 1982). The questionnaire comprises 26 items rated on a six-point scale ranging from "never" to "always." To obtain the total score of the questionnaire, each of the items was assigned 3 points for "always", 2 points for "often", 1 point for "sometimes", and 0 points for "rarely", "almost never", and "never" (only one of the questionnaire items received a reverse score), and then the sum of the points of all items was calculated. Higher scores indicate higher presence of eating disorder symptoms. The brazilian version of the questionnaire showed adequate internal consistency, with a Cronbach's alpha of .82 (Bighetti et al., 2004).

Rosenberg's Self-Esteem Scale (1965) was used to measure global self-esteem. The Brazilian Portuguese version of the scale (Hutz & Zanon, 2011) comprises ten items rated on a four-point scale ranging from "strongly disagree (1) to "strongly agree" (4). To obtain the total score of the scale, the reverse score was assigned to the items with negative direction and, then the sum of the scores of all items was calculated. Higher scores indicate higher global self-esteem. The scale showed adequate internal consistency, with a Cronbach's alpha of .90 (Hutz & Zanon, 2011).

The Drive for Muscularity Scale (McCreary & Saucier, 2009) was used to assess people's perceptions of how muscular they are or wish to be, in addition to the behaviors they engage in to become more muscular. The Brazilian Portuguese version of the scale for women (de Carvalho et al., 2019), used in the present study, comprises 14 items rated on a six-point scale ranging from "always" (1) to "never" (6). To obtain the total score of the scale, the reverse score was assigned to all its items and then the average of these scores was calculated. Higher scores indicate a greater drive of muscularity. The instrument showed adequate internal consistency, with a Cronbach's alpha of .80 (de Carvalho et al., 2019).

The depressive symptoms were measured using the Beck Depression Inventory (Beck, 1961). The Brazilian Portuguese version of the inventory (Gorestein & Andrade, 1998) comprises 21 items. Each item consists of a group of four statements about different symptoms of depression (e.g. sadness, pessimism, and feeling of failure) that vary from zero to three in increasing order of intensity. Participants were instructed to fill, in each item, all the statements that best described how they were feeling during that week, including the day the inventory was applied. The values of the statements with the highest intensity were summed to obtain the total score of the inventory. Higher scores indicate greater intensity of the symptoms of depression. The inventory showed adequate internal consistency, with a Cronbach's alpha of .86 (Gorestein & Andrade, 1998).

Leisure time physical activity was estimated by the International Physical Activity Questionnaire (IPAQ), long version (Matsudo et al., 2001). The moderate and vigorous intensity physical activities were considered, which were added to quantify the weekly leisure-time physical activity in minutes. According to Matsudo et al. (2001), Spearman's correlation coefficient = 0.69 and validity = 0.46.

Analysis Strategies

As for the data analysis, mean, standard deviations, and absolute and relative frequency were used to describe the sample. Associations were tested using multiple linear regression (backward method). The regression models were adjusted for age, marital status, BMI, and economic level.

Before conducting the regression analyses, the assumptions were assessed. Linearity and homoscedasticity were evaluated through visual inspection of scatterplots and standardized residual plots. Multicollinearity was assessed using variance inflation factor (VIF) and tolerance values. Independence of residuals was evaluated using Durbin-Watson statistics, and normality of residuals was assessed through visual inspection of histograms and normal probability (P-P) plots. All assumptions were considered satisfactory for the analyses performed. Statistical analyses were conducted using IBM SPSS Statistics version 20.0, and statistical significance was set at 5%.

Results

The characteristics of the participants, according to the variables investigated, are presented in Table 1.

In the association analyses, three explanatory models were found between the appearance comparison and the exposure variables. In the first model, all independent variables were included, which explained 41.1% of the outcome variation. In the second model, only physical activity was removed;

Table 1. *Characteristics of the college women participating in the study according to the variables investigated*

Variables	*M* (SD)
Age (years)	22.17 (4.83)
Weight (kg)	61.41 (10.91)
Height (m)	1.64 (0.06)
Body mass index (kg/m^2)	22.77 (3.68)
Economic level (score)	39.13 (11.78)
Appearance comparison (score)	19.88 (10.97)
Body satisfaction (score)	3.21 (0.84)
Drive for muscularity (score)	2.15 (0.94)
Self-Esteem (score)	30.42 (6.31)
Eating Disorder Symptoms (score)	17.44 (10.73)
Depressive symptoms (score)	13.08 (8.76)
Physical activity (min/week)	185.42 (234.69)
Marital Status	n (%)
Without partner	329 (60.7)
With partner	213 (39.3)

n: absolute frequency; %: relative frequency.

however, the model remained explaining 41.1% of the variance in the outcome. The final model was composed of eating disorder symptoms, depressive symptoms, and drive for muscularity, which showed a positive association, and body satisfaction, portraying a negative association with the outcome. That is, higher scores of eating disorder symptoms, depressive symptoms, and drive for muscularity and lower scores of body satisfaction were associated with higher appearance comparison. The final model explained 40.9% of the variance in the outcome (Table 2).

Table 2. *Multiple linear regression analysis of the association of appearance comparison with independent variables*

	B ± EP	BIC95%	β	R^2	VIF	Tolerance
Model 1				.411		
Constant	15.598 ± 4.413	6.93 – 24.27				
Eating disorder symptoms	0.390 ± 0.040	0.31 – 0.47	.382*		0.734	1.363
Body satisfaction	-2.370 ± 0.548	-3.45 – - 1.29	-.182*		0.629	1.589
Depressive symptoms	0.169 ± 0.058	0.05 – 0.28	.135**		0.514	1.945
Drive for muscularity	1.046 ± 0.419	0.22 – 1.87	.090**		0.854	1.171
Self-Esteem	-0.177 ± 0.083	-0.28 – 0.05	-.067		0.482	2.073
Physical Activity	0.000 ± 0.002	-0.003 – 0.004	.010		0.866	1.155
Model 2				.411		
Constant	15.604 ± 4.410	6.94 – 24.27				
Eating disorder symptoms	0.392 ± 0.039	0.32 – 0.47			0.754	1.327
Body satisfaction	-2.353 ± 0.544	-3.42 – -1.29			0.637	1.569
Depressive symptoms	0.166 ± 0.058	0.05 – 0.28			0.524	1.909
Drive for muscularity	1.074 ± 0.407	0.28 – 1.87			0.904	1.106
Self-Esteem	-0.118 ± 0.083	-0.29 – 0.02			0.483	2.072
Model 3				.409		
Constant	13.066 ± 4.031	5.15 – 20.99				
Eating disorder Symptom	0.393 ± 0.039	0.32 – 0.47	.385*			1.326
Body satisfaction	-2.617 ± 0.511	-3.62 – -1.61	-.200*			1.385
Depressive symptoms	0.211 ± 0.048	0.12 – 0.31	.169*			1.322
Drive for muscularity	1.062 ± 0.407	0.26 – 1.86	.091**		0.904	1.106

Note: Model 1: R^2= .410; Model 2: R^2= .410; Model 3: R^2= .409
*p < .001; **p< .05. Models adjusted for age, marital status, BMI and economic level.

Discussion

The study hypotheses were partially supported. As hypothesized, eating disorders symptoms, depressive symptoms, and drive for muscularity were positively associated with appearance-based social comparisons, whereas body satisfaction was negatively associated with this outcome. However, contrary to our expectations, self-steem and physical activity were not significant predictors in the final model. The main findings of this study indicate that eating disorder symptoms, depressive symptoms, drive for muscularity, and body satisfaction were the best predictors of appearance-based social comparisons in Brazilian college women.

College women with higher scores of eating disorder symptoms made more comparisons of their physical appearance with others. Women who expose themselves to appearance comparison have higher levels of eating disorders and disordered eating (Arigo et al., 2014; Fitzsimmons-Craft et al., 2012; Ruiz-Turrero et al., 2022). It can be explained by the fact that when comparing themselves socially with other bodies, women tend to seek an ideal body appearance (Fitzsimmons-Craft et al., 2016), which is influenced by the environment in which they are inserted, which contributes to the search for immediate alternatives, but not always healthy.

Martins et al. (2001) reported that women constantly seek a slim and curvy body and this effort can lead to unhealthy behaviors, such as nutritional disorders generated by restrictive diets. Individuals with eating concerns are more likely to experience negative comparison reactions and body dissatisfaction (Laker & Waller, 2022). Therefore, appearance comparison seems to intensify body surveillance, generating thoughts about dietary restriction and, consequently, disordered eating (Fitzsimmons-Craft et al., 2016; Tylka & Sabik, 2010).

College women with higher scores in depressive symptoms tend to compare themselves more with other people. The social comparison was associated with depressive disorders and anxiety, although it is a complex combination that encompasses several individual factors, such as the frequency and diversity of comparisons, as well as how these comparisons are internalized (McCarthy & Morina, 2020). Thus, the behavioral and affective reactions of social comparison can lead the individual to greater body dissatisfaction, which becomes pathological because it generates emotional distress, causing social interventions in the individual's life, such as depressive disorders and anxiety (Hollander et al., 2012). Generally, individuals who have body image dissatisfaction also have negative thoughts about how their body looks to other people, which can trigger an increased level of anxiety when dealing with certain situations (Tiggemann, 2010). Similarly, patients suffering from depression report less favorable evaluations of their physical state (Hollander et al., 2012) and present a higher level of social comparison, since they perceive themselves as different from others and create dysfunctional thoughts about themselves (McCarthy & Morina, 2020).

College women who desire a more muscular and defined body and take on more behaviors in search of a body with these characteristics have higher levels of appearance comparison. The social standard has changed over the years, and for some women, the desired aesthetic ideal is no longer only a thin body but a lean and toned body (Holland & Tiggemann, 2017). It was observed that both men and women who were engaged in appearance comparions had higher levels of drive for muscularity, indicating that the comparison may generate distress about their physique (McCreary & Saucier, 2009). Fardouly et al. (2017) found that following appearance comparisons on social media women reported more thoughts about exercise when matched with others, relative to women who were not exposed to the comparison. Moreover, the findings indicate that comparison with models and celebrities had less impact because the targets are seen as an unattainable goal due to their availability of time and money.

Furthermore, studies suggest that appearance comparison is associated with increased body dissatisfaction and concerns about muscle tone (Hollander et al., 2012), as well as exercising compulsively (Ruiz-Turrero et al., 2022). In contrast, women who exercised moderately to strenuously tended to report higher levels of body appreciation and functional body satisfaction (Girard et al., 2018) and this body appreciation may decrease comparison behaviors. Therefore, it can be observed that regular exercise can be beneficial when performed with the intention of promoting health.

It was also evidenced, in college women of this study, that the lower the body satisfaction, the higher the levels of appearance comparison. The internalization of appearance ideals exposed by the media has contributed to the consequences for people's body image (Girard et al., 2018). By internalizing these ideals, the individual compares his or her current state to the standard, and this appearance comparison has shown a direct relationship with body dissatisfaction because it is most likely that the person sees himself or herself as far from the ideal (Arigo et al., 2014; Rodgers et al., 2015).

Individuals with body dissatisfaction often have negative thoughts about their own body. The internalized pressure to achieve an ideal favors the development of anxiety when dealing with the situation (Tiggemann, 2010). Even women who are satisfied with their appearance can experience the negative effects of comparison (Fardouly et al., 2017). Similarly, appearance comparisons in all contexts are associated with lower appearance satisfaction (Fardouly et al., 2017). Women are usually praised for their appearance. Then, they learn from a young age to watch their own body from this external perspective to avoid negative judgment. This perspective, along with the objectification of the female body, shapes their consciousness and make them dependent on others' approval (McKinley, 2011), which causes a quest to decrease body dimensions, especially those with a high BMI (Martins et al., 2001). When women experience body dissatisfaction, they may be more likely to seek appearance comparisons (Fardouly et al., 2021).

It is important to note that the cross-sectional nature of this study does not allow conclusions regarding the direction of the observed associations. Although appearance-based social comparison has often been conceptualized as a factor contributing to body dissatisfaction, eating disorder symptoms, and psychological distress (Myers & Crowther, 2009; Vanderbosch, Fardouly & Tiggemann, 2022), alternative explanations are also plausible. For example, women experiencing greater body dissatisfaction, depressive symptoms, eating disorders symptoms, or a stronger drive for muscularity may be more likely to engage in appearance-based comparisons as a mean of self-evaluation or validation (Thompson et al., 1999; Tylka & Sabik, 2010). Previous research has suggested that these relationships may be reciprocal and mutually reinforcing over time (Rodger et al., 2015; Portingale et al., 2024). Therefore, the findings should be interpreted as evidence of association rather than causation, and longitudinal studies are needed to better understand the temporal relationships among theses variables.

Therefore, it is important to understand the relationship between constant body surveillance and social comparison, as well as the triggers and contexts that may influence this behavior (Tylka & Sabik, 2010). In this way, psychologists and physical education professionals who are involved in the topic can develop better assistance for women affected by social comparison. Moreover, it is necessary the cooperation of governmental agencies and different media to create advertising campaigns that encompass diverse bodies, encouraging self-acceptance.

Among the limitations of the present study is the sample composed exclusively of college women, which limits the generalization of the findings to other populations. In addition, although participants were recruited from public and private higher education institutions and data collection included women from different regions of Brazil, most partici-

pants were from the Southern region of the country (93.7%), which may limit the generalizability of the findings to other Brazilian regions. Therefore, the representativeness of the sample across Brazilian regions cannot be ensured, and potential sampling bias should be considered when interpreting the findings. However, it is noteworthy that the study involved a large sample size and examined several factors potentially associated with appearance-based social comparisons beyound those commonly investigated in the literature. Future studies should seek including participants from different regions of the country using more representative sampling strategies, as well as investigating other populations to identify similarities and differences in the factors associated with appearance-based social comparison.

College women with higher eating disorder symptoms, depressive symptoms, and drive for muscularity exhibit higher levels of appearance-based social comparisons, while those more satisfied with their body image tend to engage less in social comparison behaviors related to physical appearance.

Funding

This study was financed by the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES).

References

Alvarenga, M. D. S., Philippi, S. T., Lourenço, B. H., Sato, P. D. M., & Scagliusi, F. B. (2010). Body image dissatisfaction in female Brazilian university students. *Jornal Brasileiro de Psiquiatria*, *59*(1), 44-51. https://doi.org/10.1590/S0047-20852010000100007

Arigo, D., Schumacher, L., & Martin, L. M. (2014). Upward appearance comparison and the development of eating pathology in college women. *The International Journal of Eating Disorders*, *47*(5), 467-470. https://doi.org/10.1002/EAT.22240

Associação Brasileira de Empresas de Pesquisas (ABEP). (2015). Critério Brasil 2015 e Alterações na aplicação do Critério Brasil 2016. *Associação Brasileira de Empresas de Pesquisa*, 1-6. www.abep.org/criterio-brasil

Beck, A. T. (1961). A systematic investigation of depression. *Comprehensive Psychiatry, 2*(3), 163-170. https://doi.org/10.1016/S0010-440X(61)80020-5

Bighetti, F., Santos, C. B. D., Santos, J. E. D., & Ribeiro, R. P. (2004). Tradução e validação do Eating Attitudes Test em adolescentes do sexo feminino de Ribeirão Preto, São Paulo. J. bras. *Psiquiatr* 339-346.

Cash, T.F. & Smolak, L. (Eds.) (2015). *Body image: A handbook of science, practice, and prevention.* (2nd ed.). Guilford Press. https://psycnet.apa.org/record/2011-20792-000

Cash, T. F. (2012). Cognitive-behavioral perspectives on body image. *Encyclopedia of Body Image and Human Appearance, 1*, 334-342. https://doi.org/10.1016/B978-0-12-384925-0.00054-7

Claumann, G. S., Laus, M. F., Folle, A., Silva, D. A. S., & Pelegrini, A. (2021). Translation and validation of the Brazilian version of the Physical Appearance Comparison Scale-Revised in college women. *Body Image, 38*, 157-161. https://doi.org/10.1016/J.BODYIM.2021.03.018

de Carvalho, P. H. B., Oliveira, F. da C., Neves, C. M., Meireles, J. F. F., & Ferreira, M. E. C. (2019). Is the Drive for Muscularity Scale a valid and reliable instrument for young adult women? *Body Image, 29*, 1-5. https://doi.org/10.1016/J.BODYIM.2019.02.001

Delinsky, S. S. (2011). Body image and anorexia nervosa. In T. F. Cash, & L. Smolak (Eds.), *Body image: A handbook of science, practice, and prevention.* (2nd ed., pp. 279-287). New York: Guilford Press.

Fardouly, J., Pinkus, R. T., & Vartanian, L. R. (2017). The impact of appearance comparisons made through social media, traditional media, and

in person in women's everyday lives. *Body Image, 20*, 31-39. https://doi.org/10.1016/J.BODYIM.2016.11.002

Fardouly, J., Pinkus, R. T., & Vartanian, L. R. (2021). Targets of comparison and body image in women's everyday lives: The role of perceived attainability. *Body Image, 38*, 219-229. https://doi.org/10.1016/J.BODYIM.2021.04.009

Festinger, L. (1954). A Theory of Social Comparison Processes. *Human Relations, 7*(2), 117-140. https://doi.org/10.1177/001872675400700202

Fitzsimmons-Craft, E. E., Ciao, A. C., & Accurso, E. C. (2016). A naturalistic examination of social comparisons and disordered eating thoughts, urges, and behaviors in college women. *International Journal of Eating Disorders, 49*(2), 141-150. https://doi.org/10.1002/EAT.22486

Fitzsimmons-Craft, E. E., Harney, M. B., Koehler, L. G., Danzi, L. E., Riddell, M. K., & Bardone-Cone, A. M. (2012). Explaining the relation between thin ideal internalization and body dissatisfaction among college women: The roles of social comparison and body surveillance. *Body Image, 9*(1), 43-49. https://doi.org/10.1016/J.BODYIM.2011.09.002

Garner, D. M., Olmsted, M. P., Bohr, Y., Garfinkel, P. E. (1982) The Eating Attitudes Test: psychometric features and clinical correlates. Psychological Medicine, 2 (4) 871-878.

Girard, M., Rodgers, R. F., & Chabrol, H. (2018). Prospective predictors of body dissatisfaction, drive for thinness, and muscularity concerns among young women in France: A sociocultural model. *Body Image, 26*, 103-110. https://doi.org/10.1016/J.BODYIM.2018.07.001

Gorestein, C., & Andrade, L. (1998). Inventário de depressão de Beck: propriedades psicométricas da versão em português. *Revista de Psiquiatría Clínica, 25* (5): 245-250

Grogan, S. (2011). Body image development in adulthood. *Body image: A handbook of science, practice, and prevention, 2*, 93-101.

Halliwell, E., Malson, H., & Tischner, I. (2011). Are Contemporary Media Images Which Seem to Display Women as Sexually Empowered Actually Harmful to Women? *Psicology Women of Quartely, 35*(1), 38-45. https://doi.org/10.1177/0361684310385217

Holland, G., & Tiggemann, M. (2016). A systematic review of the impact of the use of social networking sites on body image and disordered eating outcomes. *Body Image, 17*, 100-110. https://doi.org/10.1016/J.BODYIM.2016.02.008

Holland, G., & Tiggemann, M. (2017). "Strong beats skinny every time": Disordered eating and compulsive exercise in women who post fitspiration on Instagram. *International Journal of Eating Disorders, 50*(1), 76-79. https://doi.org/10.1002/EAT.22559

Hollander, E., Siragusa, J., & Berkson, S. Y. (2012). Body image in mood and psychotic disorders. In T. Cash (Ed.)., *Encyclopedia of Body Image and Human Appearance,* (2nd., pp. 233-237. https://doi.org/10.1016/B978-0-12-384925-0.00035-3

Hutz, C. S., & Zanon, C. (2011). Revisão da adaptação, validação e normatização da Escala de Autoestima de Rosenberg. *Avaliação Psicológica, 10*(1), 41-49.

International Test Commission. (2016). *The ITC Guidelines for Translating and Adapting Tests*. (2nd ed.) International Test Commission.

Laker, V., & Waller, G. (2022). Does comparison of self with others influence body image among adult women? An experimental study in naturalistic settings. *Eating and Weight Disorders : EWD, 27*(2), 597-604. https://doi.org/10.1007/S40519-021-01196-3

Laus, M. F., Kakeshita, I. S., Costa, T. M. B., Ferreira, M. E. C., Fortes, L. de S., & Almeida, S. S. (2014). Body image in Brazil: recent advances in the state of knowledge and methodological issues. *Revista de Saúde Pública, 48*(2), 331-346. https://doi.org/10.1590/S0034-8910.2014048004950

Laus, M. F., Vales, L. D. M. F., Oliveira, N. G., Braga Costa, T. M., & Almeida, S. S. (2020). Brazilian version of the Multidimensional Body-Self Relations Questionnaire-Appearance Scales (MBSRQ-AS): translation and psychometric properties in adults. *Eating and Weight Disorders, 25*(5), 1253-1266. https://doi.org/10.1007/s40519-019-00758-w

Martins, C. R., Gordia, A. P., Silva, D. A. S., de Quadros, T. M. B., Ferrari, E. P., Matsudo, S., Araújo, T., Marsudo, V., Andrade, D., Andrade, E., Oliveira, luis C., & Braggion, G. (2001). Questinário internacional de atividade fisica (IPAQ): estudo de validade e reprodutibilidade no Brasil. Rev. Bras. Ativ. Fís. Saúde 6 (2), 05-18. http://periodicos.ufpel.edu.br/ojs2/index.php/RBAFS/article/viewFile/931/1222

Matsudo, S., Araújo, T., Matsudo, V., Andrade, D., Andrade, E., Oliveira, L. C., & Braggion, G. (2001). Questionario Internacional de Actividade Física (IPAQ): Estudio de validade e reprodutibilidade no Brasil. Revista Brasileira de Actividade Física & Saúde, 6(2), 5-18. https://rbafs.org.br/RBAFS/article/view/931

McCarthy, P. A., & Morina, N. (2020). Exploring the association of social comparison with depression and anxiety: A systematic review and meta-analysis. *Clinical Psychology & Psychotherapy, 27*(5), 640-671. https://doi.org/10.1002/CPP.2452

McCreary, D. R., & Saucier, D. M. (2009). Drive for muscularity, body comparison, and social physique anxiety in men and women. *Body Image, 6*(1), 24-30. https://doi.org/10.1016/J.BODYIM.2008.09.002

McKinley, N. M. (2011). Feminist perspectives on body image. ody image in mood and psychotic disorders. In T. Cash (Ed.)., *Encyclopedia of Body Image and Human Appearance,* (2nd., pp. 48-55). https://doi.org/10.1016/B978-0-12-384925-0.00035-3

Myers, T. A., & Crowther, J. H. (2009). Social comparison as a predictor of body dissatisfaction: *A meta-analytic review. Journal of Abnormal Psychology, 118*(4), 683-698. https://doi.org/10.1037/a0016763

Portingale, J., Girardin, S., Liu, S., Fuller-Tyszkiewicz, M., & Krug, I. (2024). Daily Bi-directional effects of women's social media-based appearance comparisons, body satisfaction, and disordered eating urges. *Journal of eating disorders, 12*(1), 129. https://doi.org/10.1186/s40337-024-01096-8

Rodgers, R. F., McLean, S. A., & Paxton, S. J. (2015). Longitudinal relationships among internalization of the media ideal, peer social comparison, and body dissatisfaction: Implications for the tripartite influence model. *Developmental Psychology, 51*(5), 706-713. https://doi.org/10.1037/DEV0000013

Ruiz-Turrero, J., Massar, K., Kwasnicka, D., & Hoor, G. A. T. (2022). The Relationship between Compulsive Exercise, Self-Esteem, Body Image and Body Satisfaction in Women: A Cross-Sectional Study. *International Journal of Environmental Research and Public Health, 19*(3), 1857. https://doi.org/10.3390/IJERPH19031857

Schaefer, L. M., & Thompson, J. K. (2014). The development and validation of the Physical Appearance Comparison Scale-Revised (PACS-R). *Eating Behaviors, 15*(2), 209-217. https://doi.org/10.1016/J.EATBEH.2014.01.001

Swami, V., Campana, A. N. N. B., Ferreira, L., Barrett, S., Harris, A. S., & Tavares, M. da C. G. C. F. (2011). The Acceptance of Cosmetic Surgery

Scale: Initial examination of its factor structure and correlates among Brazilian adults. *Body Image, 8*(2), 179-185. https://doi.org/10.1016/J.BODYIM.2011.01.001

Tiggemann, M. (2011). Mental health risks of self-objectification: A review of the empirical evidence for disordered eating, depressed mood, and sexual dysfunction. In R. M. Calogero, S. Tantleff-Dunn, & J. K. Thompson (Eds.), *Self-objectification in women: Causes, consequences, and counteractions* (pp. 139–159). American Psychological Association. https://doi.org/10.1037/12304-007

Thompson, J. K., Coovert, M. D., & Stormer, S. M. (1999). Body image, social comparison, and eating disturbance: a covariance structure modeling investigation. *The International journal of eating disorders, 26*(1), 43-51. https://doi.org/10.1002/(sici)1098-108x(199907)26:1<43::aid-eat6>3.0.co;2-r

Tylka, T. L., & Sabik, N. J. (2010). Integrating social comparison theory and self-esteem within objectification theory to predict women's disordered eating. *Sex Roles, 63*(1), 18-31. https://doi.org/10.1007/s11199-010-9785-3

Vandenbosch, L., Fardouly, J., & Tiggemann, M. (2022). Social media and body image: Recent trends and future directions. *Current opinion in psychology, 45*, 101289. https://doi.org/10.1016/j.copsyc.2021.12.002