

Comparison of Female Body Image Between Models and Non-Models Women

Pedro Antônio Lira Patrício¹ 

Maria Fernanda Laus² 

Sebastião de Sousa Almeida¹ 

Telma Maria Braga Costa² 

Abstract: Women have been dissatisfied with their own appearance. This study aimed to evaluate whether the media can influence changes in body image regarding weight concern, satisfaction and dysfunctional investment of one's own appearance in female runway models and non-models. This survey was composed of Brazilian women, models who were linked with an agency, and non-models. Data collection was carried out using Google Forms, sending links to invite eligible subjects. In total, 102 models and 247 non-models participated in the survey. Sample Characterization Questionnaire, weight and height reports for the Body Mass Index, Sociocultural Attitudes Toward Appearance Questionnaire-3 (SATAQ-3), Multidimensional Body-Self Relations Questionnaire – Appearance Scales (MBRSQ /AS) and Appearance Schemas Inventory - Revised (ASI-R) were used. The result showed that non-models are more susceptible to pressure from the media and that having body measurements considered ideal, like models, reduces social pressure on the body.

Keywords: body image, women, physical appearance, social influences

Comparação da Imagem Corporal Feminina entre Modelos de Passarela e Mulheres Não-Modelo

Resumo: Mulheres têm se mostrado insatisfeitas com a própria aparência. O objetivo do estudo foi avaliar se a mídia pode influenciar alterações na imagem corporal em relação à preocupação com o peso, satisfação e investimento disfuncional da própria aparência no público de mulheres modelos de passarela e não-modelos. Pesquisa utilizou brasileiras, modelos que foram vinculadas a uma agência, e não-modelos. Coleta foi realizada pelo *Google Forms* com envio de links convidando as participantes. Participaram da pesquisa 102 modelos e 247 não-modelos. Instrumentos utilizados foram um Questionário de Caracterização da Amostra, relato de peso/altura para o Índice de Massa Corporal, *Sociocultural Attitudes Toward Appearance Questionnaire-3* (SATAQ-3), *Multidimensional Body-Self Relations Questionnaire – Appearance Scales* (MBRSQ/AS) e *Appearance Schemas Inventory - Revised* (ASI-R). Resultado demonstrou que as não-modelos estão mais suscetíveis às pressões da mídia e que ter as medidas corporais consideradas ideais, como as modelos, diminui a pressão social sobre o corpo.

Palavras-chave: imagem corporal, mulheres, aparência física, influências sociais

Comparación de la Imagen Corporal Femenina entre Modelos de Pasarela y Mujeres No Modelos

Resumen: Las mujeres están insatisfechas con su propia apariencia física. El objetivo de este estudio fue evaluar si los medios de comunicación pueden influir en la imagen corporal de las mujeres respecto a la preocupación por el peso, la satisfacción e inversión disfuncional de la propia apariencia en mujeres modelos de pasarela y las no modelos. Se utilizó una muestra de mujeres brasileñas, modelos vinculadas a una agencia y no modelos. Se recogieron datos de Google Forms. Se contó con la participación de 102 modelos y 247 no modelos. Se utilizaron los cuestionarios: Caracterización de Muestras, relato de peso/altura para el Índice de Masa Corporal, *Sociocultural Attitudes Toward Appearance Questionnaire-3* (SATAQ-3), *Multidimensional Body-Self Relations Questionnaire – Appearance Scales* (MBRSQ/AS) y *Appearance Schemas Inventory - Revised* (ASI-R). Los resultados indicaron que las mujeres no modelos están más susceptibles a la presión de los medios de comunicación, y que tener medidas corporales consideradas ideales como las de las modelos reduce la presión social sobre el cuerpo.

Palabras clave: imagen corporal, mujeres, apariencia física, influencias sociales

¹Universidade de São Paulo, Ribeirão Preto-SP, Brazil

²Universidade de Ribeirão Preto, Ribeirão Preto-SP, Brazil

Support: This article is based on the Master thesis of the first author under supervision of the fourth author, defended in 2020, in the Psychobiology Graduation Program at the Faculdade de Filosofia, Ciências e Letras de Ribeirão Preto (FFCLRP-USP). This study was funded by the Coordination for the Improvement of Higher Education Personnel - Brasil (CAPES) – Funding Code 001.

Correspondence address: Pedro Antônio Lira Patrício. Universidade de São Paulo. Av. Bandeirantes, 3900, Monte Alegre, Ribeirão Preto-SP, Brazil. CEP 14.040-901. Email: pedropatricio@psi@gmail.com

The concept of body image (BI) is a multifactorial construct that helps understand the relationship between an individual and their own body, including physical, cognitive, and behavioral aspects. BI is subdivided into two dimensions: perceptual and attitudinal (Cash, 2000). The perceptual dimension is understood as the way we understand our own body in terms of measurements and shapes. The attitudinal dimension has two components: body image evaluation, which refers to body satisfaction or dissatisfaction,

and the investment component, which refers to cognition, negative and/or positive emotions, and behaviors related to specific characteristics of the body or the body as a whole (Cash, 2000; Irvine et al., 2019).

The Tripartite Influence model of body image effectively explains how BI is built and what influences BI, especially among female individuals. According to the model, parents, peers, and the media are the three main factors that directly or indirectly influence everyone's BI conception through behaviors and ideas regarding the relationship with their own body. This model also covers ideal internalization processes and appearance comparison processes that act as mediators. Internalization refers to how much someone believes and adopts measures about how one's own body should be, and comparison refers to how someone compares one's own body to the measurements considered as ideal. For the BI conception, an individual internalizes the information provided by reference sources and makes a comparison of own characteristics. The attitudes towards the body will be based on alterations in order to reach the body considered as ideal (Keery et al., 2004; Thompson et al., 1999).

Female individuals have been more dissatisfied with their own bodies, which can lead to the development of eating disorders (Aparicio-Martinez et al., 2019). This characteristic is especially observed in the western culture, which shows overvaluation and excessive pressure on female individuals regarding the type of body that women should have. This cultural characteristic can be considered one of the main factors that make women dissatisfied with their bodies (Gois & Faria, 2021; Hogue & Mills, 2019).

The constant and growing exposure of women to the media has caused changes in the perception of body image and in eating behaviors, leading to low self-esteem of those who have internalized the standards. Media content is focused on forcing women to adopt thin bodies based on a certain type of appearance and weight (Balantekin et al., 2018; Mills et al., 2018; Santarossa & Woodruff, 2017).

The beauty ideal that has been disseminated by the media, mainly in women's fashion and beauty magazines, has often used models and/or celebrities, highlighting the stereotype of thin, white, and young bodies. This specific type of image used by the media incites in women the desire to seek the same image standard for social acceptance (Aparicio-Martinez et al., 2019; Gois & Faria, 2021).

When women internalize these standards of 'thin body ideal,' they feel more pressure from these sociocultural influences, leading to body dissatisfaction behaviors, constant weight concern, and a demand to reduce their shape (Becker et al., 2019; Field et al., 2001).

According to Schlösser and Camargo (2015), modeling as a profession acquired a social status desired by many people. People practicing this profession have physical attributes considered socially attractive and are seen as a symbol of success, health, happiness, and an example to follow. According to Lisboa et al. (2016), modeling can be associated with a sense of well-being, promoting self-esteem and attractiveness. These characteristics would

be responsible for the rise of models in the social context, highlighting the practice of this profession, despite the high demands and sacrifice it requires.

To work in this market, models tend to adjust their bodies, often adopting eating behaviors that put their health at risk which may lead to the development of eating disorders (Araujo & Leoratto, 2013; Lisboa et al., 2016). Some dysfunctional behaviors (like restrictive diets, overexercising, food abstinence, and induction of vomiting) are observed in some studies with models (Hogue & Mills, 2019; Zancu & Enea, 2017).

A study conducted by Preti et al. (2008) compared groups of female models and non-models, using interviews and questionnaires to assess the risk behaviors that would indicate predisposition to eating disorders and weight concern. Despite the presence of these dysfunctional behaviors significantly higher among models, this group was more satisfied with their own appearance. According to the authors, such satisfaction with appearance was due to the fact that models presented physical characteristics that matched the socially valued and desired body measurements.

A study conducted by Pires et al. (2012) compared the facets of physical, psychological, social, environmental, and overall domains related to quality of life by the World Health Organization Questionnaire of Life – Bref (WHOQOL-Bref) in adolescent models and a control group of students. Each group had 37 participants aged 15 to 19 years. In general, the group of models presented higher mean values in all subscales (physical domain, psychological domain, social relationships, and environment), but a significant difference was observed only in the psychological domain, suggesting that models have a higher self-esteem and are more satisfied with their appearance and body image. According to the authors, this finding was justified by the fact that most models came from small towns and modeling represented a positive change in the standard of living and the fact that they had a socially desired appearance.

The literature has contradictory data regarding the behavior of models. In a study conducted by Zancu et al. (2019), a comparison was performed between a group of models and a control group of women, assessing their concerns about body shape, symptoms of eating disorders, and control of eating behavior. The result indicates that body concern was lower in the group of models. The symptoms of risk behaviors that can lead to the development of eating disorders were similar in both groups. Behaviors of food intake control were not significantly higher among models, indicating that, despite being a profession that requires specific body measurements, the risks of unhealthy eating behaviors do not differ from the general female individuals.

Based on data collected in the study, the hypotheses of our study are: the group of non-models feels more pressured by the media to achieve the socially desired body standard than the group of models (Zancu et al., 2019); the level of dissatisfaction, which can lead to more serious eating behavior issues, is similar in both groups (Zancu et al., 2019); the media are an information source that influences BI

elements similarly in both groups, considering that women, regardless of their professions, are influenced by the media (Mills et al., 2018); and models present more dysfunctional behaviors regarding the appearance and weight control to keep the expected standard for the profession (Hogue & Mills, 2019).

Our study aimed to assess whether the media can cause changes in body image related to weight concern, satisfaction, and dysfunctional investment in one's own appearance between runway models and non-models. To find out whether the media had an influence on BI components and assess statistically significant positive or negative relationships between the groups, a correlation analysis was performed between the variables investigated in this study.

Method

Participants

Study participants were divided into two groups: models (Group 1/G1) and non-models (Group 2/G2). During the study, the participants were screened for G1 (catwalk models) or G2 (women with other professions). All participants had to be between 18 and 28 years old and from Brazil, and in the case of G1 they had to be linked with a model agency during their career and paraded on catwalks. In total, 518 responses were received from both groups. Some responses had to be excluded as they did not meet the inclusion criteria ($N=73$), values were considered outliers based on the BMI ($N=6$), or responses were inaccurate and/or absent ($N=93$). The final N of valid responses was 346 participants, 99 in G1 and 247 in G2.

Instruments

Sociocultural Attitudes Toward Appearance Questionnaire-3 (SATAQ-3) was created by Thompson et al. (2004) and validated for the Brazilian population by Swami et al. (2011). It has 30 questions divided into three subscales that address, respectively, *internalization of socially established standards* (an important source of information on how to be attractive), *pressure exerted by the media* (feeling pressured by the media and forcing oneself to follow these standards), and the *media as a source of information* about appearance (accepting the media message about beauty and seeking to fit in). The response options were presented on a 5-point Likert scale ranging from 'Strongly disagree' (1 point) to 'Strongly agree' (5 points). The evaluation is based on the mean values of the answers in each subscale. The higher the total value, the stronger the influence of sociocultural aspects on BI. In our study, only the questions addressed to women were used and the ideal athletic body subscale was removed, resulting in a total of 25 items. Cronbach's alpha of the instrument was satisfactory, presenting a result of 0.951 for internalization of standards, 0.942 for media pressure, and 0.935 for the media as a source of information.

Multidimensional Body-Self Relations Questionnaire – Appearance Scales (MBRSQ-AS) assesses cognitive, behavioral, and affective aspects of BI. The questionnaire is divided into 5 subscales, as discussed below.

The Appearance Assessment (AA) evaluates satisfaction with appearance and feelings related to attractiveness/unattractiveness. High scores indicate good satisfaction and positivity, and low scores indicate dissatisfaction with physical appearance. Cronbach's alpha: 0.854.

Appearance Orientation (OA) assesses the level of investment in appearance. A high score indicates the individual cares a lot about appearance and puts a lot of effort into it, and low scores indicates the person does not care about appearance. Cronbach's alpha: 0.828.

The Body Areas Satisfaction Scale (BASS) assesses discreet aspects related to appearance. High scores indicate good satisfaction with most body areas and low scores indicate dissatisfaction with the size and/or appearance of several body areas. Cronbach's alpha: 0.846.

The Weight Concern Scale (WCS) investigates anxious behaviors to control weight, food restriction, and dieting. Cronbach's alpha: 0.777.

Self-Classification of Weight (SCW) indicates the individual's perception of her own weight, which could be as high as 'overweight' or as low as 'underweight.' Cronbach's alpha: 0.885. The response options were presented on a 5-point Likert scale ranging from 'Strongly disagree' (1 point) to 'Strongly agree' (5 points). Each subscale is analyzed individually as they are multidimensional measurements (Cash 2018; Cash, 2000). This instrument was based on the studies conducted by Brown et al. (1990) and Cash (2000). Our study used the full version of this instrument validated in Brazil (Laus et al., 2020), comprising 28 questions.

Appearance Schemas Inventory - Revised (ASI-R) was created by Cash (2003) and its valid version for Brazil was adapted by Laus (2017). The questionnaire is divided into two subscales, but in our study, only the Self-Assessed Saliency of Appearance subscale was used, with 6 questions. The response options were presented on a 5-point Likert scale ranging from 'Strongly disagree' (1 point) to 'Strongly agree' (5 points). The evaluation is based on the mean values of the answers in each subscale. The higher the total value, the stronger the dysfunctional influence of sociocultural aspects on BI (Cash, 2003; Cash, Melnyk & Hrabosky, 2004).

Procedures

Data collection. The study invitation was made on social media (Facebook and directional invitations via Instagram) and via email with a link allowing participants to answer virtually. First, an informed consent form was presented and, if accepted, the study began. Participants were informed that they could withdraw at any time without penalty. All questions of the questionnaires were mandatory. Google Forms was used for data collection. Participation was voluntary and without remuneration. The average time to answer the study was fifteen minutes.

Data analysis. Data were processed and analyzed using SPSS Statistics 23.0. Initially, outliers were identified considering the typical absolute score ($z \geq 3$) of the participant's BMI. After excluding outliers, the Shapiro-Wilk normality test was performed using the BMI, indicating these were non-parametric data. Then, a descriptive analysis was performed to characterize the sample, and the Mann-Whitney test was performed for non-parametric data of two independent samples (G1 and G2) to compare the mean values of the subscales between the groups, adopting $p < 0.05$ for significant differences. Spearman's correlation analysis was also performed for all subscales to find positive or negative relationships between the subscales in both study groups. Significant values of $p < 0.05$ (*) and $p < 0.01$ (**) were considered.

Ethical Considerations

This study was approved by the Ethics Committee of Faculdade de Filosofia Ciências e Letras de Ribeirão Preto (n° CAAE 92849018.4.0000.5407).

Results

The mean age of G1 was 22 years ($SD = 2.69$), with more respondents from the Southeast region of Brazil (36.3%). Most of them were white (65.7%), heterosexual (84.3%),

single (95.1%), with completed high school education (42.2%), underweight nutritional status (65.7%), and linked with a model agency during the study period (87.2%), with more than three years of experience in this occupation (38.2%). The mean age of G2 was 23.02 years ($SD = 2.52$), with more respondents from the Southeast region (50.4%). Most of them were white (66.8%), heterosexual (80%), single (93.2%), with incomplete higher education (50.4%), and adequate nutritional status (57.2%). Table 1 shows data from participants.

The results do not present a normal distribution. When analyzing non-parametric data with independent samples (Mann-Whitney test), the subscales showing a significant difference ($p < 0.05$) were Pressure exerted by the media, Appearance Assessment (AA), Body Areas Satisfaction Scale (BASS), and Self-Classification of Weight (SCW). G1 obtained a higher mean of 3.68 in AA ($SD = 0.83$), a higher mean of 3.64 in BASS ($SD = 0.73$), and a lower mean of 2.58 in the SCW ($SD = 0.7$). Data indicate the models participating in this study possibly consider themselves thinner, feel less pressured by the media, are more satisfied with their appearance and specific areas of the body than non-models.

No significant difference was found between the groups in the Weight Concern Scale (WCS). The result indicates that both groups have a similar level of concern, although the regulation of measurements is a relevant factor in modeling (G1 = $3.05 \pm SD 1.21$; G2 = $2.8 \pm SD 0.68$). Table 1 shows data of mean and SD of subscales.

Table 1

Mean values and standard deviation (SD) of BMI, SATAQ-3, MBSRQ-AS, and ASI-R subscales of G1 and G2 participants

	Group 1 - models (n = 99)	SD	Group 2 - Non-models (n = 247)	SD	Mann-Whitney
Body Mass Index (BMI)	18.15	2.24	23.32	4.30	0.000*
SATAQ-3					
General Internalization of Media Standards	2.96	1.18	3.22	1.20	0.58
Media pressure	2.80	1.25	2.81	1.09	0.005*
Media as a Source of Information	3.19	1.03	3.14	1.10	0.773
MBSRQ-AS					
Appearance Assessment	3.70	0.83	3.07	0.92	0.000*
Appearance Orientation	3.90	0.72	3.74	0.76	0.124
Body Area Satisfaction Scale	3.64	0.73	3.25	0.75	0.000*
Weight Concern	3.05	1.21	2.80	1.15	0.68
Self-Classification of Weight	2.58	0.70	3.29	0.89	0.000*
ASI-R					
Self-Assessed Salience	3.38	1.01	3.42	1.01	0.666

Note. *Significant difference of $p < 0.05$.

The results disagreed with the hypotheses stating that the group of non-models would be more pressured by the socio-cultural standards of the media, that the level of dissatisfaction with their own bodies would be equivalent in both samples, that models would be more concerned with gaining weight and would demonstrate more dysfunctional care with appearance.

The hypothesis stating that the media acts as an equivalent influencer in both groups was confirmed, as no significant difference was found between the samples in the subscale of media as a source of information ($G1 = 3.19 \pm DP 1.03$; $G2 = 3.14 \pm DP 1.01$).

Data from the analyses are displayed in Table 2. A correlation analysis was performed between the subscales of the instruments (SATAQ-3, MBSRQ-AS, and ASI-R) in both groups in order to determine positive or negative correlations. Differences were observed between some analyzed variables in which a significant correlation was present in one group and not in another, in addition to differences found in the mean values of each subscale. Weight concern among non-models was negatively correlated with satisfaction with appearance and positively correlated in the group of models with dysfunctional care with appearance.

Table 2
Correlation of SATAQ-3, MBSRQ-AS, and ASI subscales

	Group 1 (Models $n = 102$) / Group 2 (Non-Models $n = 247$)								
	1	2	3	4	5	6	7	8	9
1. General Internalization of Standards	1.00	0.744**	0.523**	-0.325**	0.367**	-0.604	0.552**	0.297**	0.107
2. Pressure exerted by these standards		1.00	0.511**	-0.293**	0.286**	-0.501**	0.486**	0.297**	0.647**
3. Media as a Source of Information			1.00	0.063	0.382**	-0.281**	0.323**	0.260**	0.392**
4. Appearance Assessment				1.00	-0.16	0.749**	-0.193	-0.033	-0.355**
5. Appearance Orientation					1.00	-0.218*	0.476**	0.177	0.596**
6. Body Area Satisfaction Scale						1.00	-0.365**	-0.252*	-0.589**
7. Weight Concern							1.00	0.345**	0.571**
8. Self-Classification of Weight								1.00	0.169
9. Self-Assessed Salience									1.00
	Group 2 (Non-Models $n = 247$)								
	1	2	3	4	5	6	7	8	9
1. General Internalization of Standards	1.00	0.793**	0.564**	-0.340**	0.406**	-0.475**	0.543**	0.262**	0.631**
2. Pressure exerted by these standards		1.00	0.574**	-0.325**	0.278**	-0.433**	0.543**	0.395**	0.501**
3. Media as a Source of Information			1.00	-0.131**	0.330**	-0.214**	0.385**	0.167**	0.403**
4. Appearance Assessment				1.00	0.008	0.819**	-0.366**	-0.465**	-0.367**
5. Appearance Orientation					1.00	-0.188**	0.321**	-0.69	0.538**
6. Body Area Satisfaction Scale						1.00	-0.440**	-0.426**	-0.530**
7. Weight Concern							1.00	0.510**	0.458**
8. Self-Classification of Weight								1.00	0.138*
9. Self-Assessed Salience									1.00

Note. *Significant bilateral correlation ($p < 0.05$) bilateral; **Significant bilateral correlation ($p < 0.01$).

Discussion

In the subscales of the SATAQ-3 of General Internalization of Standards and Media as Source of Information, no significant difference was observed between the groups, in disagreement with the hypothesis stating that G2 would be more subject to media influence. In the subscale of Pressure

Exerted by the Media, one significant difference was observed: G2 feels more pressure than G1, in disagreement with findings of the literature (Lisboa et al., 2016), in which models feel pressured to adopt a certain body shape. This result indicates the beginning of a change in the view of modeling careers as something negative in the relationship with one's own body.

In the AA subscale, a significant difference was observed between the mean values of the groups. The result may indicate that G1 women feel more attractive and consider their appearance as satisfactory. The BASS subscale, which assesses satisfaction with body areas, also showed a significant difference, reinforcing that G1 women feel more satisfied with their appearance. These results confirm the findings in the literature that ‘thin body ideal’ commonly required for the modeling profession is highlighted and desired by women (Hogue & Mills, 2019).

In the AO subscale, which assesses the psychological investment in appearance, no significant difference was observed between the mean values of the groups, indicating a preserved level of care in models or non-models. Although women are more aware that the content provided by the media can be overestimated and not consistent with the reality, such information is continuously disseminated, which can lead to a change in behavior and generate dissatisfaction with body image, reinforcing the idea of ideal body (Brown & Tiggemann, 2016; Keery et al., 2004).

In the Weight Concern Subscale, which assesses behaviors related to weight gain, no significant difference was observed in the mean values of the groups, indicating that models do not present different weight regulation behaviors when compared to non-models. Then, we can suggest that models actually have good self-esteem and care for themselves, disagreeing with the study hypothesis that models would be more concerned about weight control, as specific measurements are critical for this occupation. The result also suggests that specific body measurements, such as those of models, are desired by the general population of women (Araujo & Leoratto, 2013; Lisboa et al., 2016).

In the Self-Assessed Salience of Appearance subscale, no significant difference was observed between the mean values of the group, as both groups demonstrate reasonable dysfunctional care in relation to sociocultural influences. It means that both models and non-models have relatively harmful care with their own appearance, regardless of whether they directly use it in their occupation or not. This result disagrees with the study hypothesis that G1 women would present more dysfunctional behaviors in relation to their own appearance. It highlights the need for further studies assessing modeling and the perception of one’s own body, considering the risk for the development of dysfunctional behaviors, and that such characteristic may be present in women in general (Zancu et al., 2019).

In the SCW subscale, which assesses how individuals would rank themselves in relation to their own weight, a significant difference was observed between the groups. The mean value found in G1 may indicate the participants consider they are underweight to normal weight, whereas G2 women consider themselves to be at normal weight. This result indicates that models consider it natural to have a thinner body when compared to other women. Likewise, the BMI representing most women in G1 (65.7%) was classified as underweight nutritional status. Working as a model implies that the thin body ideal is a constant pursuit,

because in the fashion industry, appearance is overvalued and sociocultural factors have insisted on an increasingly thin body, although other women have increased their average weight (Zancu & Enea, 2017).

In the correlation analysis (Table 3) significant results were found for the same relationships in both groups. Positive correlations were observed in the subscales of Internalization of Standards, Pressure exerted by these Standards, Media as a Source of Information, Weight Concern, and Self-Assessed Salience. It result shows that higher psychological care with appearance is related to stronger influence, pressure, and internalization of body references from the media, and more precautions to avoid weight gain and higher incidence of dysfunctional behaviors represented by Self-Assessed Salience. It reinforces the findings in the literature about the influence of the media on the understanding of the body among the female audience. In the study by Becker et al. (2019), an online survey was conducted to assess the body image and quality of life of women, and a significant correlation was found between negative attitudes towards own body and dysfunctional behaviors related to own well-being.

The Weight Concern Scale (WCS) showed a significant difference in two aspects when comparing the groups (Table 2). A positive relationship was observed between WCS and the Self-Assessed Salience in the group of models, showing that a higher presence of weight control behaviors indicated a higher possibility of dysfunctional behaviors related to appearance. This finding reinforces the literature that some unhealthy behaviors may be required to pursue a modeling career (Preti et al., 2008). In G2, a negative correlation was found between Appearance Assessment and Weight Concern, showing that the greater the weight, the lower the overall satisfaction with appearance. Non-models, based on the collected sample, showed higher weight according to the average BMI, suggesting that women still have the idea that a thin body is the ideal type. It agrees with the findings of a study conducted by Hogue and Mills (2019), which assessed the process of internalization of media content by non-models, and found that the media influences body-related behaviors, leading to stronger concerns about with one’s own appearance.

In the negative significant correlations (Table 2), both groups showed a similar result in the AA subscale with General Internalization of Standards and Pressure Exerted by these standards, i.e., it means that the greater the satisfaction with one’s own body, the lower the internalization and pressure of the content from the media about body standards. Another result that reinforces this finding was the presence of negative correlations, in both groups, between the BASS subscale and all the SATAQ-3 subscales. It reinforces that the media remain a sociocultural reference through the process of internalization of body image standards, causing people to adopt weight and body control and regulation behaviors (Field et al., 2001).

In this analysis, two differences were observed between G1 and G2. First, a negative correlation was observed

between AA and Media as a Source of Information. Non-models are less satisfied with their own appearance as they adopt the media as a reference source of beauty-related information. This result was not observed in the group of models. The second negative correlation, observed only among non-models, was in the BASS, which showed a significant result with SCW scale, indicating that non-models consider dissatisfaction with their bodies if they are overweight according to their own perception. This result is similar to that found in a study by Hogue e Mills (2019), which suggests a process of internalization of media content among non-models and the media as an influencer of body-related behaviors.

According our study results, we conclude the media are still an important source of information, present in several components of women's body image, in agreement with previous studies on the same subject. Also, the media has stronger pressure on non-models.

The study obtained satisfactory results that agree with the relevance of media influence on BI components, which proved to be significant, and acts differently in the groups: milder among models and more intense among non-models.

Based on the results found in our study, models present higher satisfaction with and investment in appearance. Although body measurements are a crucial factor for modeling, participants in both groups in our study showed a similarly good level of such investment.

Excessive concern about weight gain was similar in both groups, suggesting that even if a woman has specific body measurements for a specific occupation, such as models, it does not indicate that she presents more weight control behaviors. Another difference observed between the groups was that, for models, higher incidence of dysfunctional care indicated greater weight gain control behaviors, and for non-models, higher weight indicated lower satisfaction with their own weight, indicating a different focus of women according to weight gain and group they belong to.

Regarding dysfunctional care with appearance and excessive concern with weight gain, both groups showed this type of behavior. This result suggests that, although the models need to maintain rigid and specific body measurements, their concern about weight and appearance does not differ from other women who do not have such body demand. Then, in general, women still feel the need to have a thin body.

The factors evaluated in our study showed positive or negative correlations among themselves and between the groups. Differences were observed between some variables in which a significant correlation was present in one group and not in another, in addition to the differences found in the results of mean values from each subscale. Concern about being overweight in non-models was negatively correlated with satisfaction with appearance, and positively correlated in the group of models with dysfunctional appearance care.

Study limitations were the lack of literature on the subject, inclusion of other variables that may affect the presented results, and updated and validated instruments

for Brazilian samples. The considerations made in our study are intended to contribute with more knowledge about the behavior of women regarding their own bodies and how it affects their biopsychosocial health. For future studies involving body image and population of women, we recommend to consider the profession of the participants, as this information allows a broader exploration of how they see and behave regarding their own bodies.

References

- Aparicio-Martinez, P., Perea-Moreno, A. J., Martinez-Jimenez, M. P., Redel-Macias, M. D., Pagliari, C., & Vaquero-Abellan, M. (2019). Social media, thin-ideal, body dissatisfaction and disordered eating attitudes: An exploratory analysis. *International Journal of Environmental Research and Public Health*, *16*(21), 4177. <https://doi.org/10.3390/ijerph16214177>
- Araujo, D. C., & Leoratto, D. (2013). Alterações da silhueta feminina: A influência da moda [Changes in female silhouette: The influence of fashion]. *Revista Brasileira de Ciências do Esporte*, *35*(3), 717-739. <http://doi.org/10.1590/S0101-32892013000300014>
- Balantekin, K. N., Birch, L. L., & Savage, J. S. (2018). Family, friend, and media factors are associated with patterns of weight-control behavior among adolescent girls. *Eating and Weight Disorders: EWD*, *23*(2), 215-223. <https://doi.org/10.1007/s40519-016-0359-4>
- Becker, C. B., Verzijl, C. L., Kilpela, L. S., Wilfred, S. A., & Stewart, T. (2019). Body image in adult women: Associations with health behaviors, quality of life, and functional impairment. *Journal of Health Psychology*, *24*(11), 1536-1547. <https://doi.org/10.1177/1359105317710815>
- Brown, T. A., Cash, T. F., & Mikulka, P. J. (1990). Attitudinal body image assessment: Factor analysis of the Body-Self Relations Questionnaire. *Journal of Personality Assessment*, *55*(1-2), 135-144. <https://doi.org/10.1080/00223891.1990.9674053>
- Brown, Z., & Tiggemann, M. (2016). Attractive celebrity and peer images on Instagram: Effect on women's mood and body image. *Body image*, *19*, 37-43.
- Cash, T. F. (2000). *Multidimensional Body-Self Relations Questionnaire (MBSRQ)*. <https://doi.org/10.1037/t08755-000>
- Cash, T. F. (2003). Brief manual for the appearance schemas inventory-revised. Body Image Research Consulting. Virginia.
- Cash, T. F., Melnyk, S. E., & Hrabosky, J. I. (2004). The assessment of body image investment: An extensive revision of the appearance schemas inventory. *International Journal of Eating Disorders*, *35*(3), 305-316.

- Cash, T. F. (2018). *The Multidimensional Body-Self Relations Questionnaire users' manual (fourth revision)*. <http://www.body-images.com>
- Field, A. E., Camargo, C. A., Taylor, C. B., Berkey, C. S., Roberts, S. B., & Colditz, G. A. (2001). Peer, parent, and media influences on the development of weight concerns and frequent dieting among preadolescent and adolescent girls and boys. *Pediatrics*, 107(1), 54–60. <https://doi.org/10.1542/peds.107.1.54>
- Gois, I., & Faria, A. L. (2021). A cultura da magreza como fator social na etiologia de transtornos alimentares em mulheres: Uma revisão narrativa da literatura [The culture of slim as a social factor in the etiology of food disorders in women: A narrative review of literature]. *Revista Ibero-Americana De Humanidades, Ciências E Educação*, 7(1), 18. <https://doi.org/10.29327/217514.7.1-12>
- Hogue, J. V., & Mills, J. S. (2019). The effects of active social media engagement with peers on body image in young women. *Body Image*, 28, 1-5. <https://doi.org/10.1016/j.bodyim.2018.11.002>
- Irvine, K. R., McCarty, K., McKenzie, K. J., Pollet, T. V., Cornelissen, K. K., Toveé, M. J., & Cornelissen, P. L. (2019). Distorted body image influences body schema in individuals with negative bodily attitudes. *Neuropsychologia*, 122, 38-50. <https://doi.org/10.1016/j.neuropsychologia.2018.11.015>
- Keery, H., van den Berg, P., & Thompson, J. K. (2004). An evaluation of the Tripartite Influence Model of body dissatisfaction and eating disturbance with adolescent girls. *Body Image*, 1(3), 237-251. <https://doi.org/10.1016/j.bodyim.2004.03.001>
- Laus, M. F., Vales, L. D., 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: EWD*, 25(5), 1253-1266. <https://doi.org/10.1007/s40519-019-00758-w>
- Laus, M. F. (2017). Investimento psicológico disfuncional na aparência: seriam os relacionamentos amorosos fatores de proteção? Relatório Científico (Pós-Doutorado). Ribeirão Preto: Fundação de Amparo à Pesquisa do Estado de São Paulo. Processo 2013/04357-0.
- Lisboa, S. D. C., Delevatt, R. S., & Krueh, L. F. M. (2016). Padrões de beleza, saúde e qualidade de vida em modelos de passarela: Uma revisão de literatura [Beauty standards, health and quality of life of runway models: A review]. *Revista Brasileira de Ciências da Saúde*, 19(3), 241-246. <https://periodicos.ufpb.br/ojs/index.php/rbcs/article/view/21462>
- Mills, J. S., Musto, S., Williams, L., & Tiggemann, M. (2018). “Selfie” harm: Effects on mood and body image in young women. *Body Image*, 27, 86-92. <https://doi.org/10.1016/j.bodyim.2018.08.007>
- Pires, L., Rodrigues, A. M., Fisberg, M., Costa, R. F., & Schoen, T. H. (2012). Qualidade de vida de adolescentes modelos profissionais [Quality of life of professional adolescent models]. *Psicologia: Teoria e Pesquisa*, 28(1), 71-76. <https://doi.org/10.1590/S0102-37722012000100009>
- Preti, A., Usai, A., Miotto, P., Petretto, D. R., & Masala, C. (2008). Eating disorders among professional fashion models. *Psychiatry Research*, 159(1-2), 86-94. <https://doi.org/10.1016/j.psychres.2005.07.040>
- Santarossa, S., & Woodruff, S. J. (2017). #Socialmedia: Exploring the relationship of social networking sites on body image, self-esteem, and eating disorders. *Social Media and Society*, 3(2), 2056305117704407. <https://doi.org/10.1177/2056305117704407>
- Schlösser, A., & Camargo, B. V. (2015). Representações sociais da beleza física para modelos fotográficos e não-modelos [Social representations of physical beauty for professional photo models and non-models]. *Psico*, 46(2), 274-282. <https://doi.org/10.15448/1980-8623.2015.2.17725>
- Swami, V., Campana, A. N. N. B., Ferreira, L., Barrett, S., Harris, A. S., & Tavares, M. 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>
- Thompson, J. K., Heinberg, L. J., Altabe, M. & Tantleff-Dunn, S. (1999). Social comparison processes. In J. K. Thompson, L. J. Heinberg, M. Altabe, & S. Tantleff-Dunn, *Exacting beauty: Theory, assessment, and treatment of body image disturbance* (pp. 85-124). American Psychological Association. Cap 3.
- Thompson, J. K., van den Berg, P., Roehrig, M., Guarda, A. S., & Heinberg, L. J. (2004). The Sociocultural Attitudes Toward Appearance Questionnaire (SATAQ-3): Development and validation. *International Journal of Eating Disorders*, 35(3), 293-304. <https://doi.org/10.1002/eat.10257>
- Zancu, S. A., & Enea, V. (2017). Eating disorders among fashion models: A systematic review of the literature. *Eating and Weight Disorders: EWD*, 22(3), 395-405. <https://doi.org/10.1007/s40519-016-0293-5>
- Zancu, S. A., Rodgers, R. F., & Enea, V. (2019). Self-determined motivation for eating behavior regulation and sociocultural influences among Romanian fashion models. *Body Image*, 31, 150-159. <https://doi.org/10.1016/j.bodyim.2019.10.003>

Pedro Antônio Lira Patrício is a Ph.D. candidate of the Postgraduate in Psychobiology of the Faculdade de Filosofia, Ciências e Letras at Ribeirão Preto, Universidade de São Paulo, Ribeirão Preto-SP, Brazil.

Maria Fernanda Laus is a Professor at the Universidade de Ribeirão Preto, Ribeirão Preto-SP, Brazil.

Sebastião de Sousa Almeida is a Professor at the Faculdade de Filosofia, Ciências e Letras at Ribeirão Preto of the Universidade de São Paulo, Ribeirão Preto-SP, Brazil.

Telma Maria Braga Costa is a Professor at the Universidade de Ribeirão Preto, Ribeirão Preto-SP, Brazil.

Authors' Contribution:

All authors made substantial contributions to the conception and design of this study, to data analysis and interpretation, and to the manuscript revision and approval of the final version. All authors assume public responsibility for the manuscript content.

Associate editor:

Wanderlei Abadio de Oliveira

Received: May. 11, 2022

1st Revision: Jan. 06, 2023

Approved: Feb. 13, 2023

How to cite this article:

Patrício, P. A. L., Laus, M. F., Almeida, S. S., & Braga Costa, T. M. (2023). Comparison of female body image between models and non-models women. *Paidéia (Ribeirão Preto)*, 33, e3309. doi:<https://doi.org/10.1590/1982-4327e3309>