

# **BODY IMAGE DISSATISFACTION: RELATIONSHIP OF SELF-ESTEEM, EATING BEHAVIOR AND NUTRITIONAL STATUS IN UNIVERSITY STUDENTS**

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The complex relationships between body image, Body Mass Index (BMI), self esteem and eating attitudes have been subject of a considerable number of researches (Hudson, 2008). However, although the importance of self-esteem for social and individual wellbeing is internationally recognized, in Brazil, there are few studies that cover this topic, especially on a population basis (Avanci, Assis, Santos & Oliveira, 2007). It is known that self-esteem is important to how people feel and respect themselves, and can influence attitudes about food and body image perception (Hudson, 2008). In this sense, some authors suggest that the habit of thinking negatively the own body has been a significant new conception in the field of dissatisfaction with body appearance perception (Verplanken & Velsvik, 2008). It is noteworthy that dissatisfaction with appearance has an impact on development and quality of life, as it involves self-perception and attitudes toward the body, covering beliefs, thoughts, feelings and behaviors, which justifies the importance of studying new variables related to this component of body image. Thus, the purpose of this study was to examine, according to cognitive-behavioral approach, possible relations between self-esteem, body image dissatisfaction, eating behavior and nutritional status in college students from the region of Ribeirão Preto - São Paulo. The study was approved by the Institutional Ethics Committee (Process CEP-FFCLRP No 462/2009 – 2009.1.1760.59.9.) Were evaluated 40 subjects (20 men and 20 women) aged between 18 and 25 years, recruited at that

Faculty, excluding those students who study Psychology or Nutrition, since they have knowledge about the theme. For evaluation of body image dissatisfaction, considered one of the components of the attitudinal dimension of body image, was used the Figure Rating Scale created and validated for the Brazilian population by Kakeshita, Silva, Zanatta and Almeida (2009). In this test, participants were asked to choose a card from the series arranged in ascending order, with the figure that best represents his/her current body ("Current" BMI). Then, the subject must indicate the card with the figure that he/she would like to have ("Desired" BMI). The rate of body image dissatisfaction is provided by the operating "Desired" BMI – "Current" BMI. Eating attitudes were assessed by the Eating Attitudes Test (EAT-26) validated for the Brazilian population by Bighetti, Santos, Santos and Ribeiro (2004). It is a self-scored test that shows abnormal eating patterns such as intention to lose weight or fear of gaining weight, but does not reveal possible underlying psychopathology. To evaluate the self-esteem we used the Rosenberg Self-esteem Scale, adapted and validated for the Brazilian population by Hutz and Zanon (2010) for students of primary, secondary and higher education, aged 10-30 years. The choice of this instrument is justified because it is one of the most used in international and national studies to assess self-esteem (Avanci et al., 2007). To measure weight and height we used, respectively, an electronic balance with capacity of 150 kg x 50g, and an anthropometer with 200 cm in size and millimeter graduation. From these data were calculated BMI by the ratio of weight divided by height squared ( $BMI = \text{kg}/\text{m}^2$ ). Nutritional status was classified according to World Health Organization (WHO, 1997) parameters. For statistical treatment, we used a Student t test to verify possible differences between the sexes and the Pearson correlation test between the variables. The levels of statistical significance were set at  $p < .05$ . Regarding nutritional status, there was a prevalence of normal weight in both sexes (70% of women and 55% of men). This category was followed by overweight in men (30%) and underweight in women (20%). The mean BMI measured in each group was  $24.77 \text{ kg}/\text{m}^2 (\pm 1.0)$  for men and  $21.48 \text{ kg}/\text{m}^2 (\pm 0.6)$  for women, and this difference was considered statistically significant ( $p < .05$ ). For self-esteem, the mean score of the Rosenberg Self-Esteem Scale was 32.1 points ( $\pm 1.0$ ) for men and 31.5 points ( $\pm 0.7$ ) for women and no significant differences between sexes were found

( $p > .05$ ), which indicates high levels of self-esteem for men and women. For eating behavior, the average score on the Eating Attitudes Test was 4.4 points ( $\pm 0.5$ ) for men and 6.2 ( $\pm 0.9$ ) for women. There was not score suggesting risk eating behavior (above or equal to 21 points) and was not found significant difference between the sexes for this variable ( $p > .05$ ). For dissatisfaction with body appearance, the Figure Rating Scale showed that men wanted to weigh approximately 1.38 kg/m<sup>2</sup> less, while women want to be on average 1.75 kg/m<sup>2</sup> thinner, with no significant differences between sexes ( $p > .05$ ). Correlation analysis showed that self-esteem did not correlates significantly with body appearance ( $r = -.11$ ,  $p > .05$ ) or with eating behavior ( $r = .11$ ,  $p > .05$ ), and there was also no significant correlation between body image dissatisfaction and eating behavior ( $r = -.03$ ,  $p > .05$ ). These results demonstrate that for this sample, dissatisfaction with the appearance and eating behavior are mutually independent and do not depend of self-esteem. The nutritional status of the sample is consistent with other research with college students (Coqueiro, Petroski, Pelegrini & Barbosa, 2008; Quadros et al., 2010) with a prevalence of normal weight followed by underweight in women and overweight in men. However, the study sample has a greater BMI when compared to male average found in previously reported studies. The average score found in the Rosenberg Self-Esteem Scale was higher than the one indicated by Hutz and Zanon (2010) who reviewed adaptation and validation processes of the scale and found a mean score of 18.9 points for both sexes. The Eating Attitudes Test did not demonstrated positive scores, which suggest risks behaviors, and these results differ from other studies with this population (Pontieri, Lopes & Eça, 2007; Gonçalves, Barbosa, Rosa & Rodrigues, 2008). The Figure Rating Scale showed that men and women are dissatisfied with their own image and want to reduce their size. This result differs from those found by Coqueiro et al. (2008) and Quadros et al. (2010), who reported that, in general, men would like to have a higher BMI, while women want a smaller silhouette. In men, the desire of a small silhouette may be explained by the high rate of overweight in this sample. The results indicate high self-esteem and no risk eating behavior in this sample, suggesting a possible relationship between these factors that must be considered in future surveys. However, despite the lack of significant relationships found between these factors in this study, dissatisfaction with

appearance was high in both men and women which indicate care needs associated with this variable in the university population.

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