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I. Introduction

- Adolescence is a period of life characterized by physical, emotional and social changes (Steinberg, L. 2005).
- The changes observed in the body, namely in the body fat percentage, lead to a restructuring of body image (Freedman, Khan et al. 2002).
- Body image dissatisfaction and distortion are strongly correlated to unhealthy dietary intakes and eating disorders (Smolak, L. 2004).
- No work has been made in Portugal correlating body composition and body image perception and satisfaction.

II. Objective

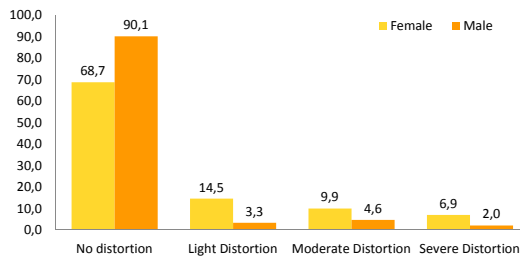
- To study the correlation between body image distortion and body composition (% of body fat mass) in Portuguese adolescents.

III. Methods

- A cross-sectional, quantitative study was designed
- A convenience sample of 282 adolescents (54% males), aged 15 to 19 years.
- Adolescents body image was assessed using the Portuguese version of the Body Shape Questionnaire (BSQ 34)
- Anthropometric measurements were performed with a Tanita bioelectrical impedance, model BC 545. Adolescents wore light clothes and had at least 3 hours fasting. McCarthy, 2006 reference curves were used for classification.
- Parents gave written informed consent, following Helsinki Declaration procedures. Confidentiality was maintained and adolescents were given the opportunity to refuse participation.
- Statistical Analysis was performed using SPSS 21.0; descriptive statistics (frequencies, mean, median and standard deviation), Pearson Qui-square and Spearman correlation were used, after testing normality.

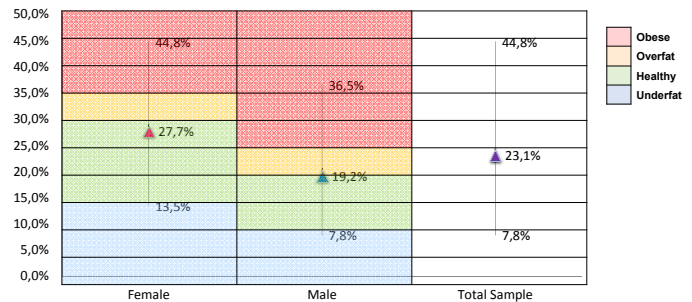
IV. Results

Figure 1. Prevalence (%) of Body Image distortion, per gender



- These data reveal that 80,1% of the students had no body fat distortion.
- Females showed a significantly higher prevalence of Body Image distortion (Phi= 0,273; p=0,000).
- Among females, 14,5% had a light distortion, 9,9% had a moderate distortion and 6,9% had a severe distortion.

Figure 2. Body Fat Percentage: Mean, Minimum and Maximum values, per gender



- The male students revealed that 3.3% had a light distortion, 4.6% had a moderate distortion and 2.0% had a severe distortion.
- The average body fat percentage was higher in females (27.7%) compared to males (19.2%).
- A moderate correlation between body image distortion and body fat percentage was observed ($\rho = 0.535$; $p = 0,000$).

V. Conclusions

- These data revealed a lower prevalence of body fat distortion, 19,9%, compared to previously reported values as high as 29% (Liechty, J. M., 2010), 40% (Blashill, A. J. 2013) or 52% (Cho, J. H. 2012).
- Regarding the gender differences, the present study is in accordance with previous results, where females tend to have a significantly higher prevalence of body image distortion, when compared to boys (Cullari, S. 1998, Cho, J. H. 2012); as well as a greater prevalence of body image dissatisfaction (Smolak, L. 2004, Presnell, K. 2004).

- Several different works revealed that obesity, according to body mass index, was associated with body image dissatisfaction (Smolak, L. 2004, Presnell, K. 2004). A gap in the literature existed regarding body image distortion and body fat percentage, the present results reveal a significant correlation.
- In a social context where fighting childhood obesity aggregates most public health efforts and is present in media daily, it seems crucial to teach children and adolescents on how to recognize and accept their own body image.

VI. References

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