

Body Composition and Body Satisfaction in Adult Men and Women

LAUREL L. BAGWELL¹, MARK D. FARIES², TORI JARZABKOWSKI¹, and PHILIP R. STANFORTH¹

¹The University of Texas at Austin, Austin, TX; ²Stephen F. Austin State University, Nacogdoches, TX.

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Advisor / Mentor: Stanforth, Philip R. (p.stanforth@austin.utexas.edu)

ABSTRACT

OBJECTIVE: The purpose of this study was to determine the strongest relationships and predictors of self-perceived weight/body composition dissatisfaction from various body anthropometric measures. Hypotheses were that, 1) men (M) and women (W) with an overall higher percentage of body fat would exhibit greater weight dissatisfaction, and 2) that W would experience a greater dissatisfaction than M.

METHODS: A convenience cohort of 1404 participants (642 M and 762 W), 18-75 yrs of age (30.6 ± 12.4 yrs), ranked their satisfaction with their weight/body composition on a Likert scale of 1 to 5 (1= very satisfied, 2 = satisfied, 3 = somewhat satisfied/somewhat dissatisfied, 4= dissatisfied, 5 = very dissatisfied). If not satisfied or very satisfied, participants were asked "what would make you satisfied?" Responses included: no choice, gain weight and/or muscle, lose 5-10 lbs., lose 10-15 lbs., lose 15-25 lbs., lose more than 25 lbs., be within recommended BF% range, and other. Their total and regional body composition was then measured using dual-energy x-ray absorptiometry (DXA) at the Fitness Institute of Texas.

RESULTS: Spearman correlations were used to compare dissatisfaction ratings and body composition measures. Most body composition variables were significantly correlated ($p < 0.01$) with dissatisfaction. The highest correlations for W were: total fat mass (FM) (0.60), android FM (0.58), trunk FM (0.58), and BMI (0.58). For M the highest correlations were: android fat% (0.55), android FM (0.55), android mass (0.55), total fat % (0.55) and trunk fat % (0.55). All lean mass measures had the lowest correlation with dissatisfaction for M (0.03 - 0.19) and W (0.18 - 0.28). At all body composition levels, more W than M were dissatisfied with their weight/body composition. Stepwise ordinal regression, with dissatisfaction as the outcome variable and DXA variables as predictors, determined that total fat, BMI and age explained 19.7% of the variation in the dissatisfaction of W, while android fat % and lean arm mass accounted for 16.3% of the variation in M ($p < 0.05$). Of those dissatisfied, 19.2% of W and 42.5% of M wanted to "gain weight and/or muscle," while 80.8% of W and 57.5% of M wanted to lose weight.

CONCLUSION: In general, as total or regional body fat increases, so does weight/body composition dissatisfaction. At all levels of body composition, more W than M were dissatisfied with their weight/body composition. Of those dissatisfied, most participants wanted to lose weight instead of gain weight/muscle; however, more W than M want to lose weight, and more M than W want to gain weight/muscle. Body composition measures accounted for only a modest amount of self-perceived dissatisfaction; therefore further research should investigate factors beyond the physical that may better predict body dissatisfaction and better understand body image perceptions to develop individual strategies that encourage the adoption of healthy behaviors that promote an overall better quality of life.