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PSYCHOLOGY
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Sex Differences in the Association Between Body Esteem and Depressive Symptoms

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Abstract

The current study provides evidence for the effect of particular subtypes of body esteem on depressive symptoms in college students. For both genders, perception of poor general fitness (e.g., stamina) was associated with greater depressive symptoms, and dissatisfaction with body parts sensitive to weight (e.g., waist) predicted greater depressive symptoms in females. This difference may support the theory of body-image risk factors for depression (Stice et al., 2000) and further provide evidence for the relationship between body esteem and depressive symptoms.

Introduction

Depression is one of the most prevalent psychological disorders, inflicting high costs individually, interpersonally, and fiscally (Gotlib & Hammen, 2009). Therefore, it is important to identify factors associated with depression in order to target new areas for treatment and intervention (Kraemer et al., 2002). For example, research suggests body esteem is associated with depression (Reirden & Koff, 1997; Stice et al., 2000), and that the manifestation of body esteem in males and females may be different (Franzio & Shields, 1984). Specifically, negative body esteem concerning body areas more sensitive to weight (e.g. waist) have been associated with increased depressive symptoms in females (Stice et al., 2000). In males, however, depressive symptoms may be associated with discrepancies between ideal and real muscularity (Olivardia et al., 2004). Therefore, the current study adds to this literature by investigating distinct subtypes of body esteem (females: weight concern, sexual attractiveness, and physical condition; and males: physical attractiveness, upper body strength, and physical condition) to determine the best predictor of depressive symptoms. We hypothesize that consistent with past research, negative body esteem in areas sensitive to weight will significantly predict higher depressive symptoms in females, whereas negative body esteem in upper body strength will predict higher depressive symptoms in males after controlling for body mass index.
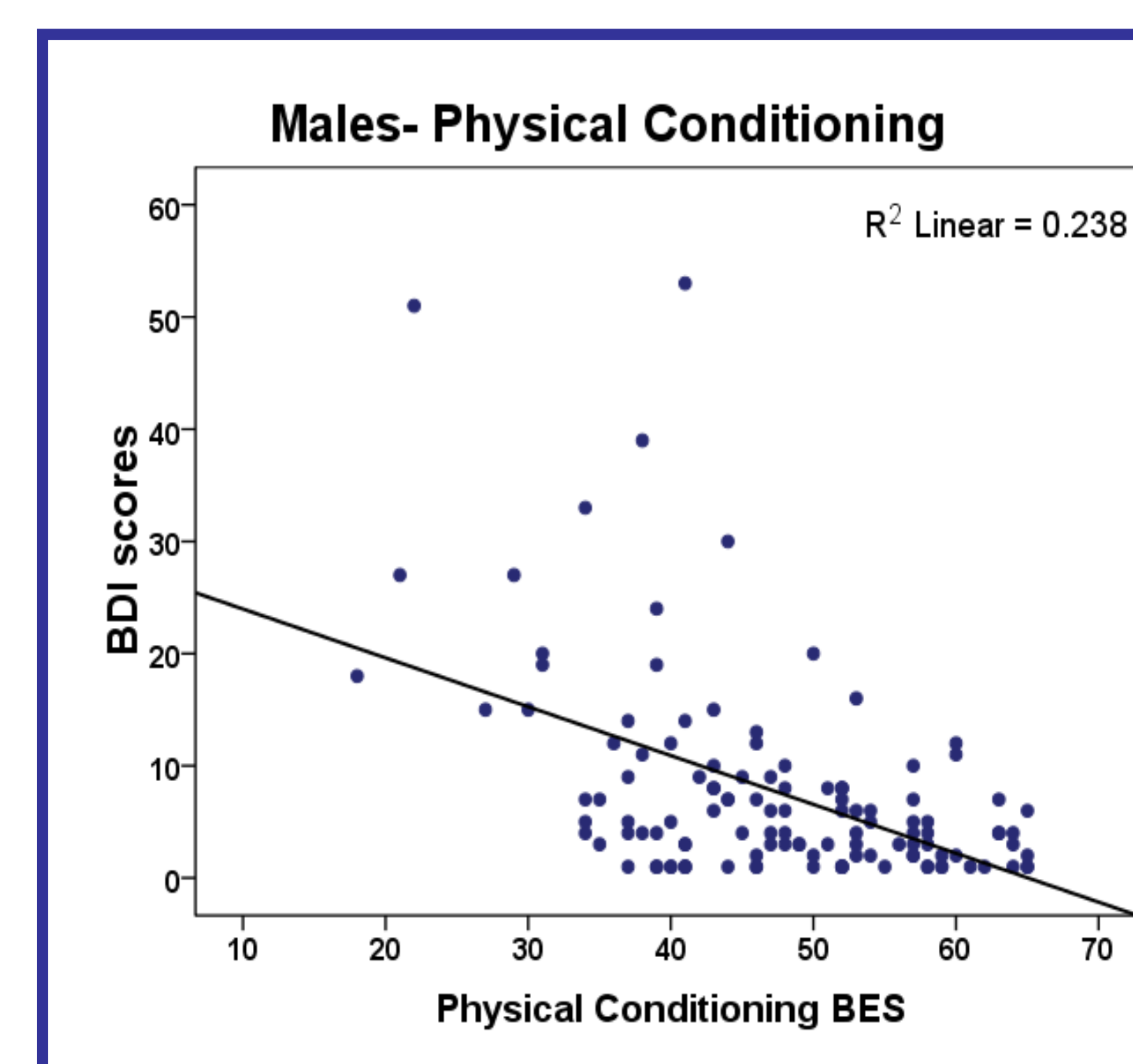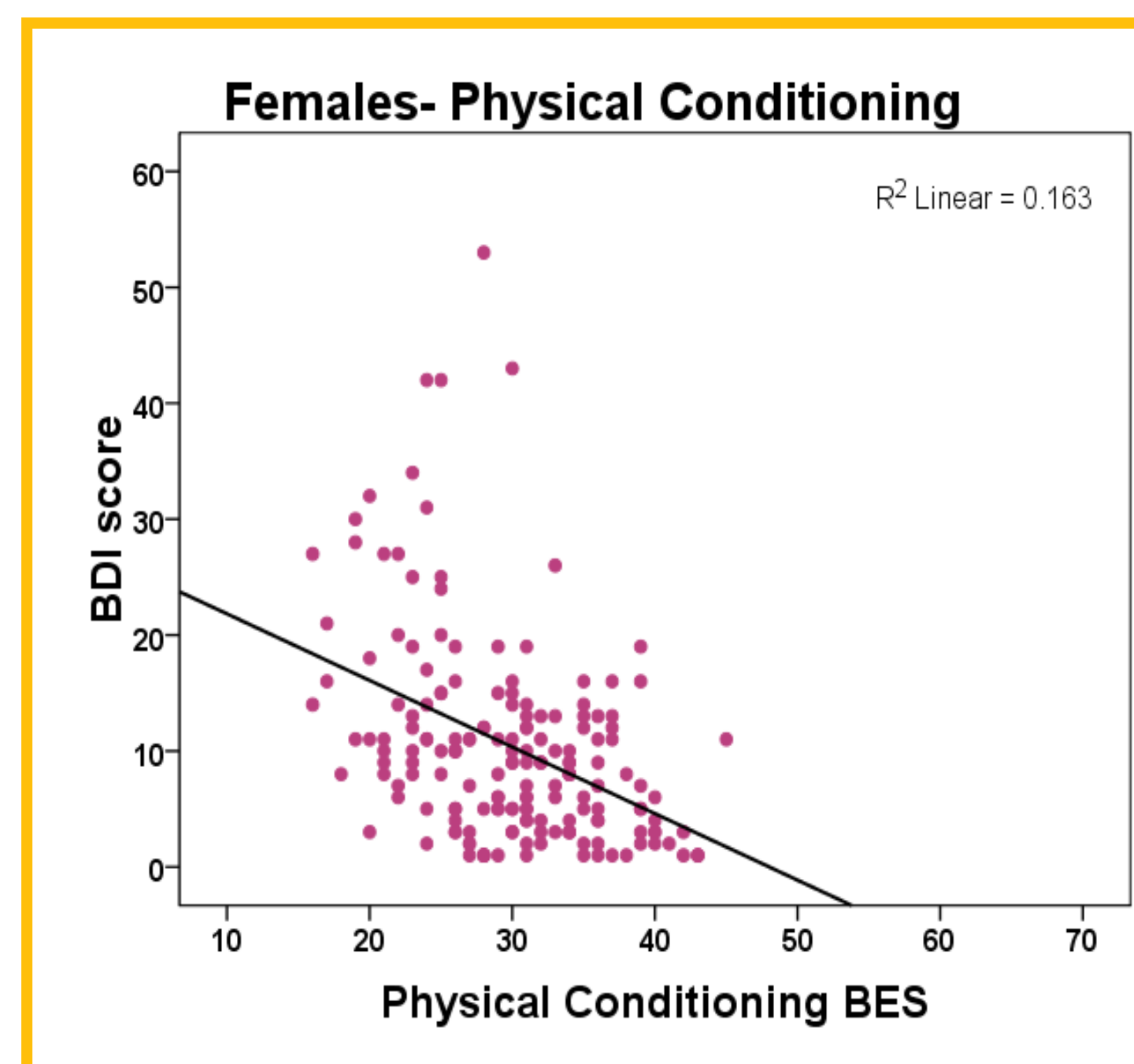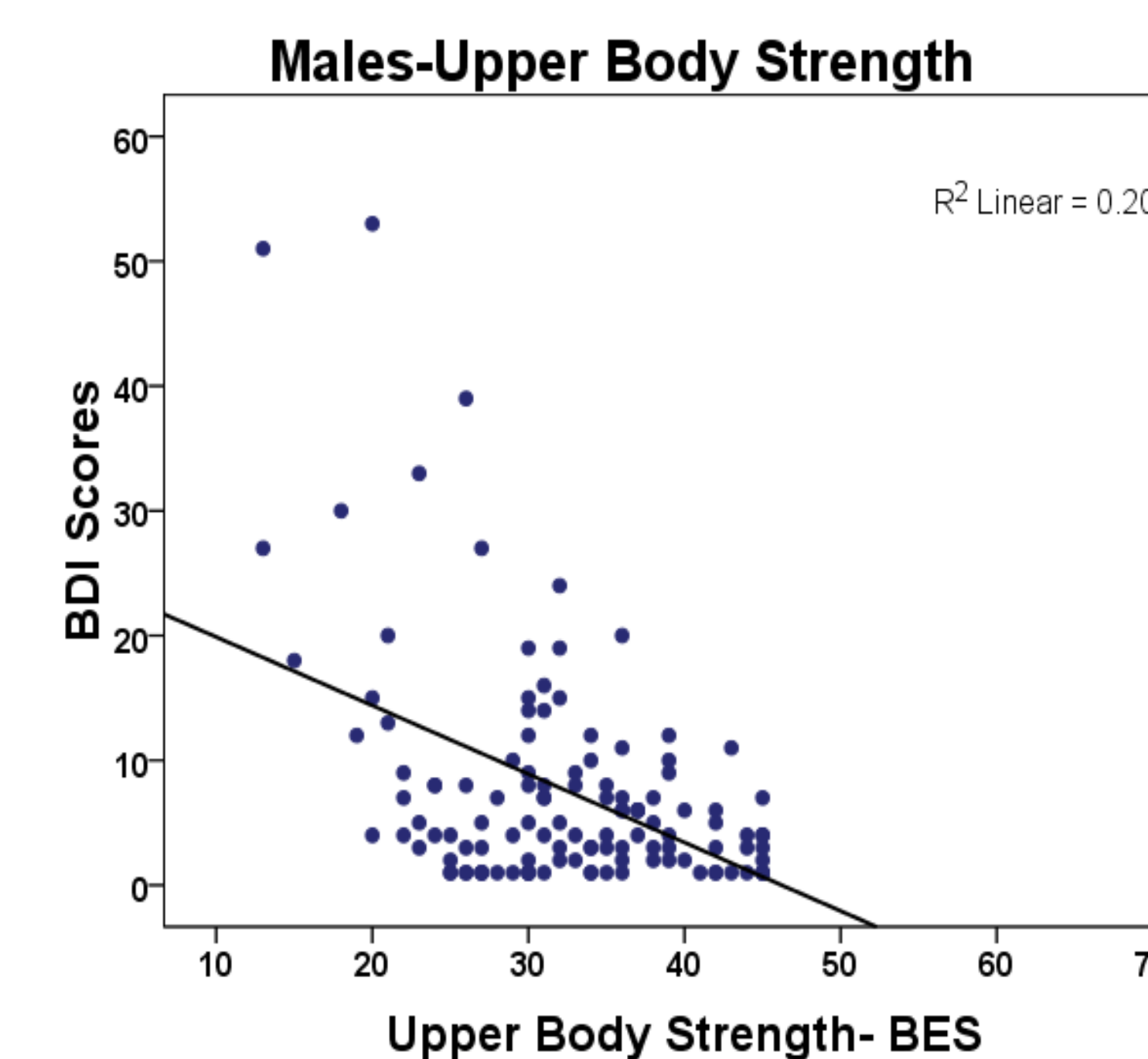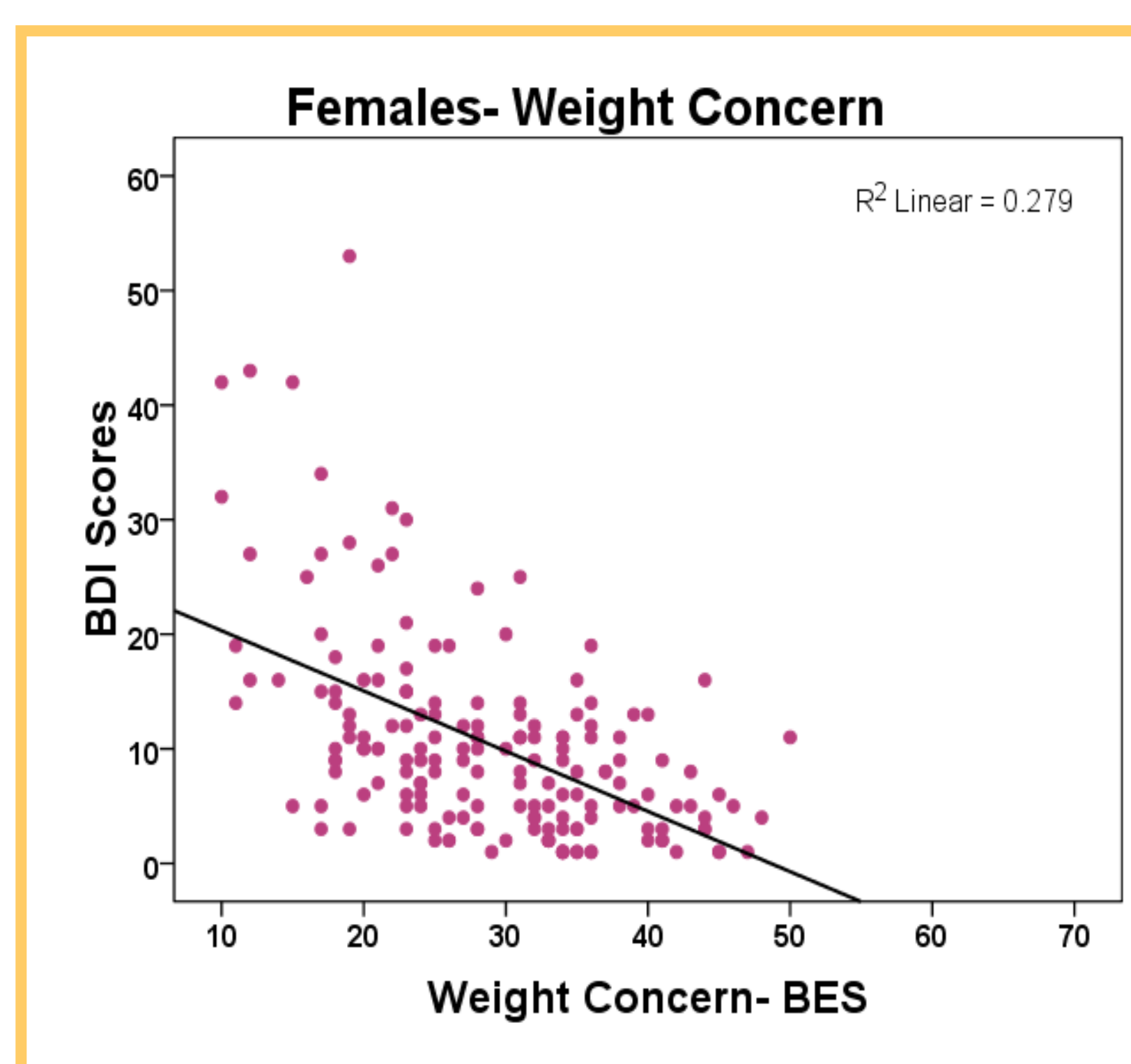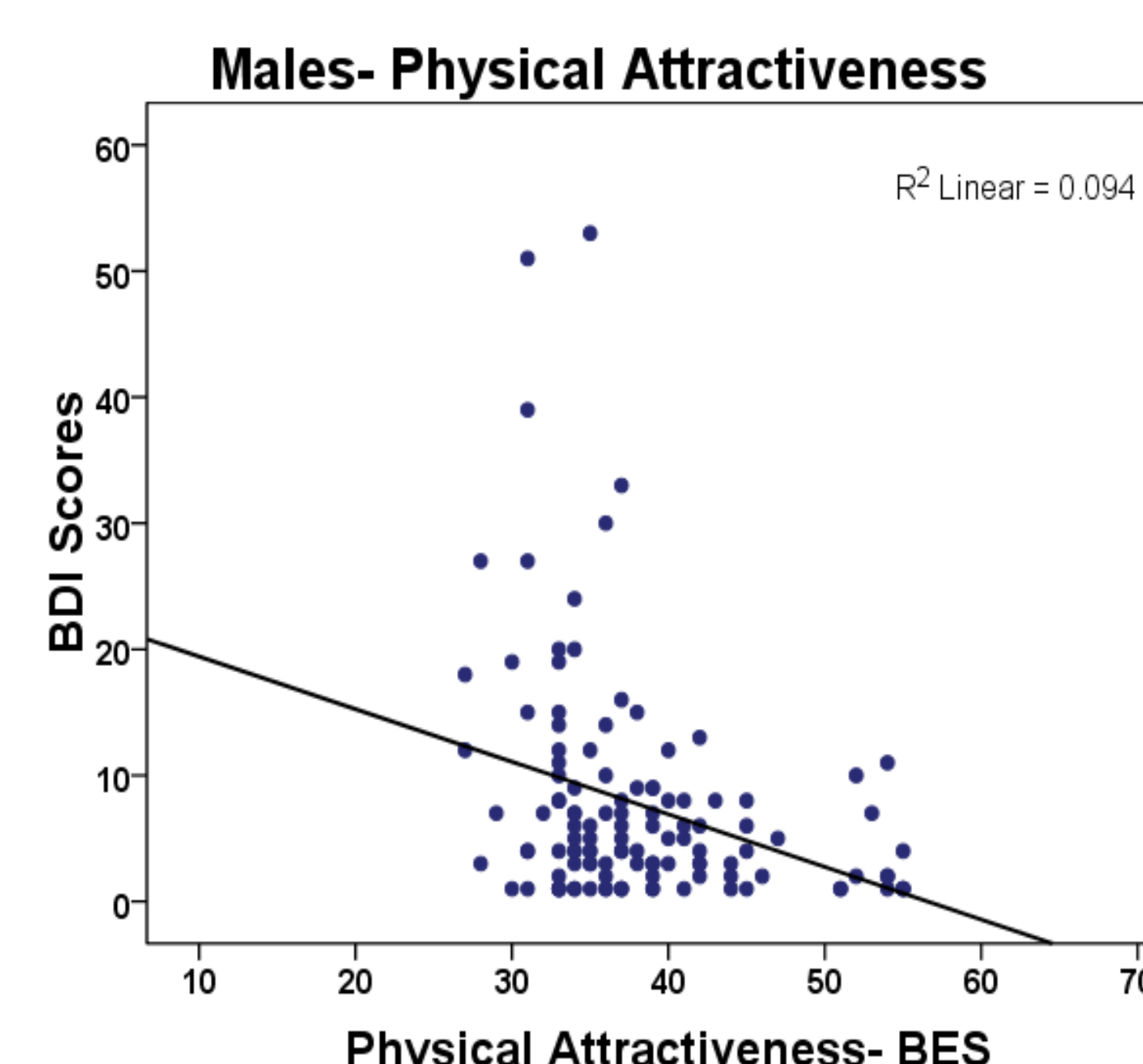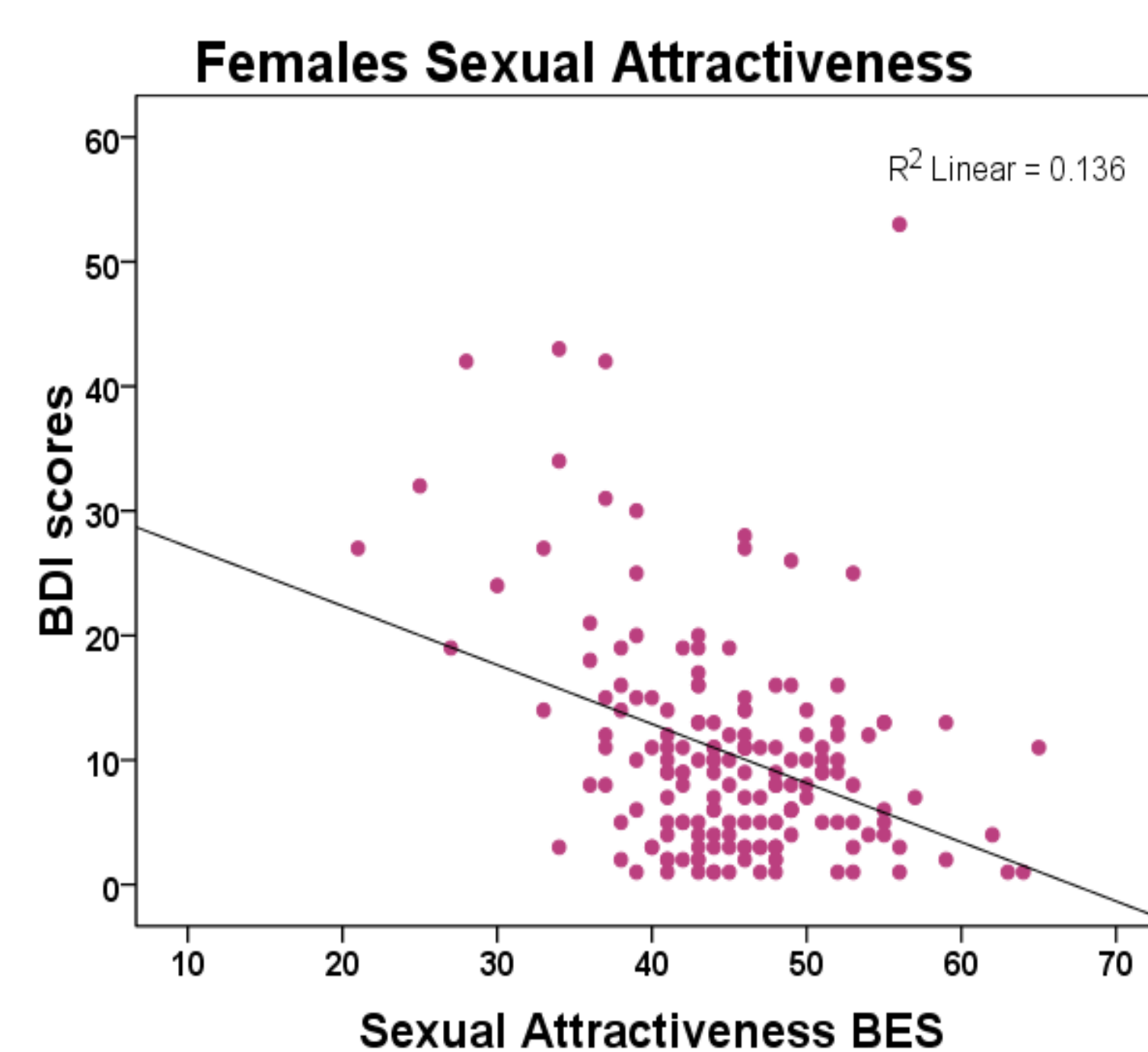
Methods

The study included 295 university students. Participants completed an online survey including the Body-Esteem Scale (BES; Franzio & Shields, 1984) and the Beck Depression Inventory (BDI-II; Beck et al., 1994). The BES was scored according to Franzio & Shields original three subscales for both males and females.

BES Subscale Females	Example Body Parts	BES Subscales Male	Example Body Parts
Sexual Attractiveness	Lips, Sex Organs	Physical Attractiveness	Cheekbones, Chin
Weight Concern	Hips, Figure	Upper Body Strength	Muscle Strength, Biceps
Physical Conditioning	Physical Stamina, Muscle Strength	Physical Conditioning	Physical Stamina, Physical Condition

Results

Descriptive Statistics	Females (N = 173)	Males (N= 122)
Age	$M = 18.6$ (.85)	$M = 19.2$ (1.2)
Race	71.7% White 12.1% Asian American 4.6% African American 11% Other	76.4% White 10.7% Asian American 0% African American 14.8% Other
Beck Depression Inventory Scores	$M = 9.5$ (8.9)	$M = 6.6$ (9.1)
Body Esteem Scale total	$M = 113.2$ (20.2)	$M = 124$ (22.8)
Body Mass Index	$M = 22.4$ (3.1)	$M = 23.1$ (3.1)

Females Sexual Attractiveness — R^2 Linear = 0.136

Males- Physical Attractiveness — R^2 Linear = 0.094

Females- Weight Concern — R^2 Linear = 0.279

Males-Upper Body Strength — R^2 Linear = 0.204

Females- Physical Conditioning — R^2 Linear = 0.163

Males- Physical Conditioning — R^2 Linear = 0.238

Results continued

Simultaneous multiple regressions were run with each of the three body esteem subscales predicting depressive symptoms for each gender. In both males and females, the models were significant. These results also held when BMI was added as a covariate.

BES Females	Full Model
	R^2=.278, F (3,169) = 23.108, p< .001
Sexual Attractiveness	β = .021, t = .251, NS
Weight Concern	β = -.422, t = -4.9, p < .001
Physical Conditioning	β = -.183, t = -2.1, p < .04

BES Males	Full Model
	R^2 = .185, F (3,118)=10.18, p<.001
Physical Attractiveness	β =.002, t = .014, NS
Upper Body Strength	β = -.02, t= -.162, NS
Physical Conditioning	β = -.438, t = -2.97, p<.01

Conclusion

Our results are consistent with research showing gender differences in the link between depression and body esteem (Stice et al., 2000). Although, there was an overall effect of physical conditioning on depressive symptoms regardless of gender, there was a gender-specific effect of weight concern on depressive symptoms. Particularly, women's negative body esteem about weight predicted higher depressive symptoms. Contrary to our hypothesis, only physical conditioning (e.g. stamina) was predictive of depressive symptoms in males, whereas upper body strength was not. However, this may be partially congruent with prior research since the physical conditioning scale assesses general weight and figure, which may tap into similar constructs as muscularity. Finally, results suggest that negative self perception of physical fitness may be one risk factor for depression common to males and females since dissatisfaction with their physical conditioning predicted depressive symptoms over and above the effect of general or strength-related attractiveness, even after controlling for BMI. These findings also have implications for clinical practice, specifically, assessing a patient's perception of physical fitness may be important as this could be one contributor to depression. **Limitations**: The sample is mainly Caucasian, which limits generalizability given that there may be differences in body esteem among races (Miller et al., 2000). Secondly, the variance in depressive symptom scores is relatively low, with most individuals scoring in the lower range. However, these scores are common in research on college age populations (Storch et al., 2004). Future research is needed to address these limitations.