



Social Appearance Anxiety, Fear of Negative Evaluation, and Health: The Relationship with Obesity and Body Image

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Abstract

Introduction: Social anxiety disorder (SAD) is highly comorbid with body image disorders and obesity (Chou, 2009). A core component of SAD is fear of negative evaluation (FNE) (Haikal & Hong, 2010).

Method: We examined the relationship between health variables (BMI, body fat content), drive for muscularity, and social anxiety.

Results/Discussion: Fear of negative evaluation and social appearance anxiety had a unique relationship with the health variables over and above other social fears. Negative evaluation fears may have a specific relationship with obesity and body image disorders.

Introduction

•Social anxiety disorder (SAD) is highly comorbid with body image disorders and obesity (Chou, 2009)

•A core component of SAD is fear of negative evaluation (FNE) (Haikal & Hong, 2010)

•Social appearance anxiety may also help explain the relationship between body image disorders and SAD (Levinson & Rodebaugh, 2011)

•Drive for muscularity (DFMusc) may cause body image disorders in men (Ricardi & McCabe, 2004)

•Individuals with SAD often suffer from physical health impairments including obesity (Acarturk et al., 2008)

•Body fat content and BMI are often used as indicators of obesity (Garrow & Webster, 1985)

•In the current study we examined negative evaluation fears (FNE & SAA), social anxiety, drive for muscularity, BMI, and body fat content

Hypotheses

- 1) SAA, FNE, and gender would predict body fat content and BMI over and above other social fears (social interaction anxiety and fear of scrutiny)
- 2) FNE would interact with gender to predict DFMusc
- 3) SAA would interact with gender to predict DFMusc

Participants

- 118 undergraduates
- Mostly female ($n = 73$; 62%)
- Mostly white ($n = 84$; 71%)
- Mean age of about 19 ($M = 19.31$, $SD = 1.20$)

Measures

Social Appearance Anxiety Scale (SAAS; Hart et. al, 2008)

- Contains 16 items regarding anxiety about one's appearance in social situations
- Demonstrates a unifactorial structure
- Positively associated with measures of social anxiety
- Is a unique predictor of social anxiety over and above body image measures

Brief Fear of Negative Evaluation (BFNE; Leary, 1983)

- Brief version of the original FNE (Watson & Clark, 1969)
- Measures fear of being negatively evaluated
- Fear of negative evaluation is hypothesized to be a core component of SAD

Straight Social Interaction Anxiety Scale (Mattick & Clarke, 1998)

- 17-item measure of anxiety-related reactions to social situations

Social Phobia Scale (SPS; Mattick & Clarke, 1998)

- 20-item measure that assesses *fear of scrutiny* (performance fears)

Drive for Muscularity Scale (McCreary & Sasse, 2000)

- 15 item measure of drive for muscularity
- Assesses an individual's desire to increase their muscularity

Body Mass Index (BMI)

- Calculated based on height and weight measured in the laboratory
- Height measured with wall hanging height chart
- Weight measured on an Omron HBF-400 scale

Body fat content

- Measured with a Baseline Body Fat Monitor Model 12-1122

Procedure

- Participants filled out questionnaire measures
- Participants had their height, weight, and body fat content measured

Results

Table 1. Zero-order Correlations
The relationship between health variables, social anxiety, and DFM

	SAAS	BFNE	SIAS	SPS	DFM	BMI	Body fat
SAAS	.95	.63**	.55**	.69**	.06	.01	.21*
BFNE		.93	.69**	.69**	.10	.01	.01
SIAS			.91	.73**	.09	.02	.01
SPS				.89	-.09	.04	.11
DFM					.87	.09	-.30**
BMI						X	.59**
Body fat							X

Note. SAAS = Social Appearance Anxiety Scale; BFNE = Brief Fear of Negative Evaluation Scale; SIAS = Social Interaction Anxiety Scale; SPS = Social Phobia Scale; DFM = Drive for Muscularity Scale; BMI = Body Mass Index; Diagonal value is Cronbach's Alpha; * = $p < .05$, ** = $p < .001$

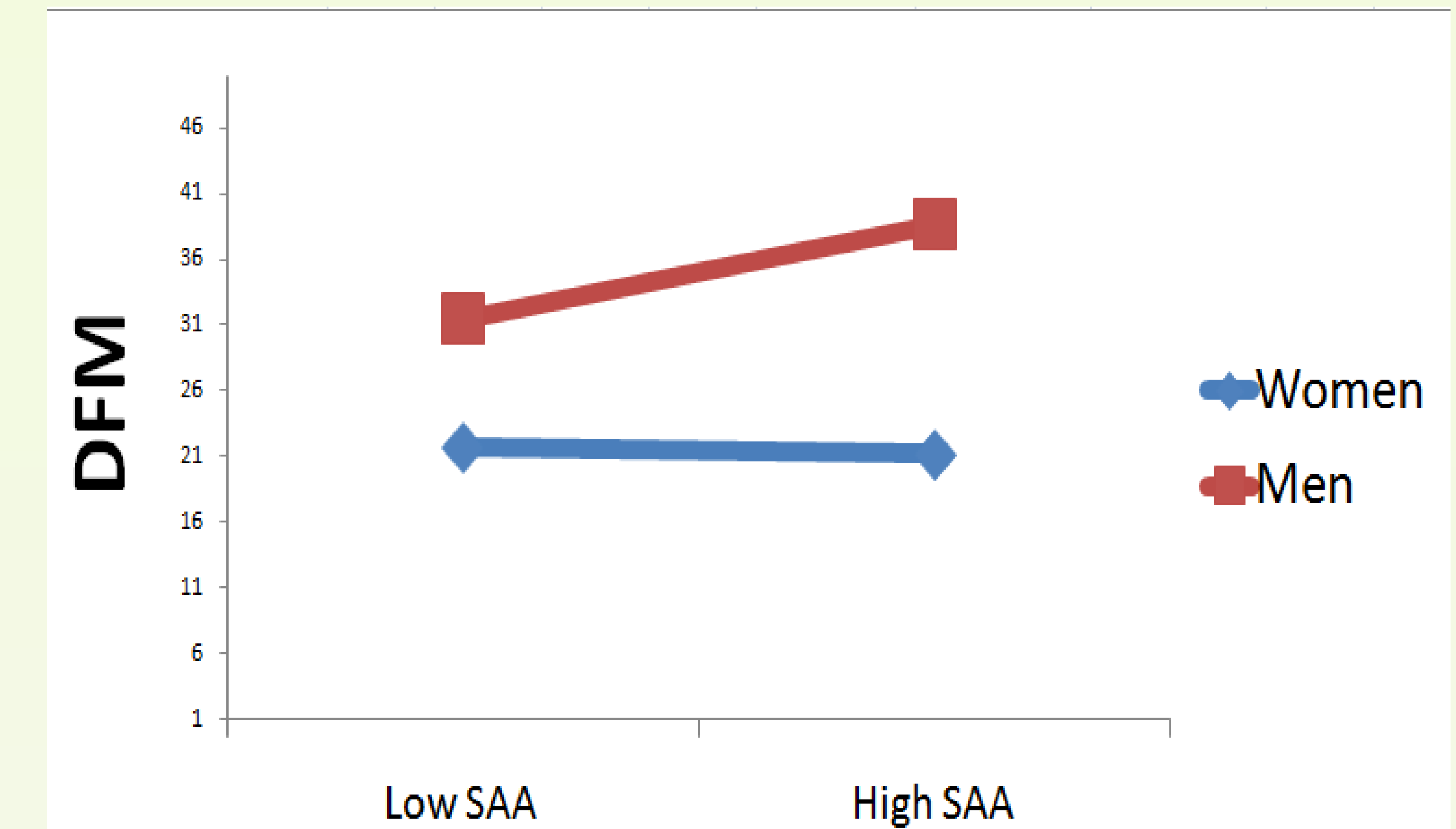
Multiple Regression Analyses: Body Fat Content & Body Mass Index

•SAA (part $r = .26$, $p = .006$), FNE (part $r = .21$, $p = .038$), and gender (part $r = -.46$, $p < .001$) significantly predicted body fat content over and above social interaction anxiety (part $r = -.08$, $p = .556$) and fear of scrutiny (part $r = .13$, $p = .212$)

•SAA (part $r = .21$, $p = .030$) and gender (part $r = .26$, $p = .007$) were the only significant predictors of BMI (all $ps > .445$)

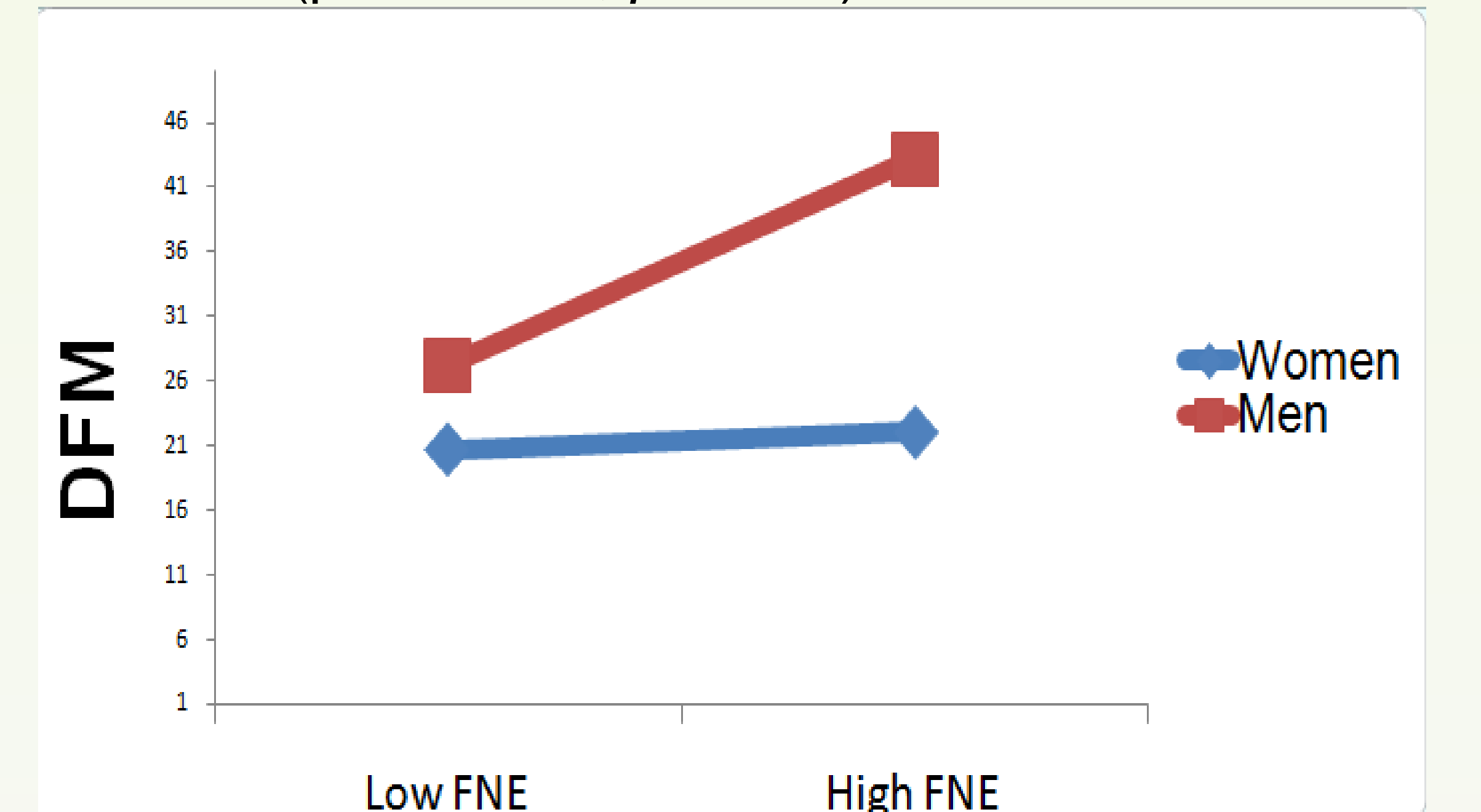
Results

- There was a significant interaction between gender and SAA (part $r = .20$, $p = .035$) predicting DFM



Note. SAA = Social Appearance Anxiety; DFM = Drive for Muscularity.

- There was a significant interaction between gender and FNE (part $r = .24$, $p = .011$)



Note. SAA = Social Appearance Anxiety; DFM = Drive for Muscularity.

Discussion

- SAA and FNE may have a specific impact on obesity and body image
- High levels of FNE and SAA may lead to drive for muscularity in men, which may in turn lead to body image disorders or maladaptive behaviors (e.g., steroid use)
- Future research should explore these relationships in a longitudinal design to provide evidence on causality
- Interventions that address FNE and SAA may help prevent the development of obesity and body image disorders