



Connections with Disturbed Eating: Correlates of Disordered Eating Behavior



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Purpose

- Little is known about the correlates of disordered eating behavior that may aid in the identification and treatment (Hoyt & Ross, 2003). Our purpose was to determine the prevalence of diagnosed eating disorders at UWEC as well as the relative strength and direction of correlates of disordered eating behavior
- Our findings will aid UWEC Counseling Services in identifying and treating students with disordered eating behavior
- This research may assist clinicians and communities in the prevention and treatment of eating disorders and disordered eating behavior

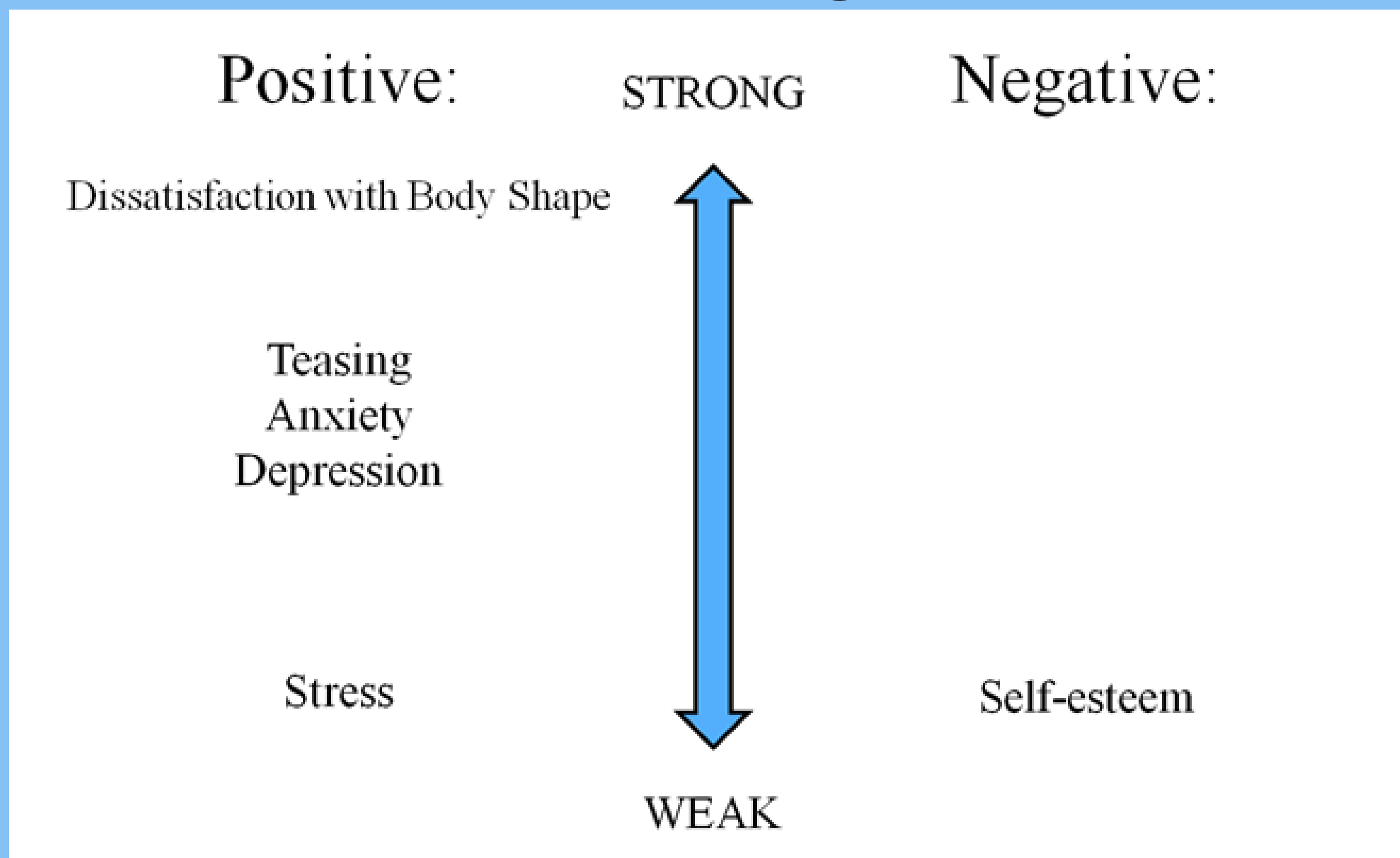
Previous Research

Correlations with disordered eating behavior:

- Body dissatisfaction ($r = .80-.87$)
- Teasing ($r = .60$)
- Anxiety ($r = .47$)
- Depression ($r = .39$)
- Stress ($r = .03$)
- Self-esteem ($r = -.03$)

(Neumark-Sztainer, Wall, Story, & Perry, 2003; Vince & Walker, 2008)

Hypotheses About Expected Correlates of Disordered Eating Behaviors



Procedure

- A pilot survey was conducted to check the feasibility and improve the design
- We administered an online survey using Qualtrics
- The survey took 15-20 minutes to complete on average
- The survey contained 157 base items*

*The survey could have up to 167 total items, depending on individual responses. For example, if a participant were to respond *Never* to an item on the Perception of Teasing Scale (POTS), they would not be asked a follow-up question. On the other hand, if a participant were to make any other response, such as *Sometimes* or *Very often*, they would be presented with the follow-up question *How upset were you?*

Analyses

- Descriptive statistics to report frequencies and severity of disordered eating behaviors
- Multiple regression analyses to assess the relative strength and direction of associations between predictors
- Post-hoc factor analysis to understand the factors associated with disordered eating behavior

Incidence of Eating Disorders

8 people said they have a diagnosed eating disorder (1.6%)

- 3 Anorexia Nervosa
- 3 Bulimia Nervosa
- 1 Binge eating
- 1 Eating disorder not otherwise specified

Correlates of Disordered Eating

Dissatisfaction with body shape	$r = .93, p < .001$
Negative eating attitudes	$r = .75, p < .001$
Self-esteem	$r = -.54, p < .001$
Depression, anxiety, & stress	$r = .52, p < .001$
Satisfaction with life	$r = -.44, p < .001$
Teasing	$r = .32, p < .001$
Body Mass Index	$r = .25, p < .001$
Grade point average	$r = .03, \text{Not significant}$

Disordered Eating Prediction Models

Regression: Disordered eating as a function of body shape image

- $N = 471$
- Predictor = BSQ
- Outcome = EDE-Q4
 - Adjusted $R^2 = .85, F = 2695, p < .001$

Regression: Disordered eating as a function of body shape image and eating attitudes

- $N = 450$
- Predictors = BSQ, EAT-26
- Outcome = EDE-Q4
 - Adjusted $R^2 = .89, F = 1779, p < .001$

Regression: Disordered eating as a function of body shape image, eating attitudes, teasing, depression, anxiety, stress, self-esteem, life satisfaction, body mass index, and grade point average

- $N = 393$
- Predictors = BSQ, EAT-26, POTS, DASS, SES, SWLS, BMI, GPA
- Outcome = EDE-Q4
 - Adjusted $R^2 = .90, F = 434, p < .001$

Factor Structure

Post-hoc factor analysis revealed three factors:

- Intrapersonal/psychological factor
 - Life satisfaction (-.88)
 - Self-esteem (-.87)
 - Depression, anxiety, & stress (.76)
 - Body shape image (.59)
 - Disordered eating behaviors (.55)
- Teasing and weight factor
 - Frequency and effect of teasing (.84)
 - Body mass index (.75)
- Attitudes and eating behavior factor
 - Negative eating attitudes (.78)
 - Disordered eating behavior (.70)
 - Body shape image (.62)
 - Grade point average (.54)

Discussion

- The prevalence of eating disorders at UWEC \approx prevalence of female college students meeting the full DSM-IV criteria for Anorexia Nervosa or Bulimia Nervosa (estimated 1-3%)
- Dissatisfaction with body shape is the best predictor of disordered eating behavior, accounting for 85% of the variance (as predicted)
- Eating attitudes also have a small, but significant contribution to the prediction of disordered eating behavior
- The correlation between the Eating Disorders Examination Questionnaire and the Body Shape Questionnaire is so strong that is pulling out almost all of the variance in disordered eating behavior and may not account for the complexity of the variables
- Post-hoc factor analysis revealed a multidimensional structure of disordered eating behaviors which can help us to better understand the nature of the relationships between the variables.

Limitations

- There is a high rate of incompleteness, likely because of the questionnaire length
- There is an underrepresentation of disordered eating behavior in general which does not allow for an accurate representation of the population. Previous researchers have found that as many as 38.5% of women who refuse to participate in surveys related to eating disorders actually have symptoms of an eating disorder (Beglin & Fairburn, 1992).
- The nature of the research does not allow for statements about cause and effect. Correlation does not imply causation so we cannot determine if dissatisfaction with body shape causes disordered eating behaviors or vice versa
- The sample is limited to undergraduate college students at only one university
- The instruments may not measure all aspects of what they purport to measure

Implications for Future Research

- Future research could add scales addressing other known predictors of disordered eating behavior to account for variance
- Correlations, regressions, and factor analyses of the subscales of DASS, EDE-Q4, and POTS could reveal other intriguing relationships between the variables

References

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Instruments

Criterion (outcome) variable:

- Eating Disorders Examination Questionnaire (EDE-Q4) $\alpha = .93$

Predictor variables:

- Body Shape Questionnaire (BSQ) $\alpha = .98$
- Depression, Anxiety, and Stress Scale (DASS) $\alpha = .93$
- Perception of Teasing Scale (POTS) $\alpha = .92$
- Self-Esteem Scale (SES) $\alpha = .92$
- Satisfaction with Life Scale (SWLS) $\alpha = .91$
- Eating Attitudes Test (EAT-26) $\alpha = .86$