



# The Association between Anxiety and Self-Perceived Body Image

Bizzy Katz, Applied Data Analysis, Wesleyan University

## Introduction

- Anxiety and Depression are present at unprecedented levels among adolescents in the United States (VanOrman, 2022)
- There is a significant association between mental health problems and increased social media use. More specifically, it's been found that reduced social media use leads to a significant improvement in self-perceived body image. (Share, 2017)
  - Being a female is identified as a risk factor for higher anxiety and a lower self esteem regarding body image.(Sander, 2021)
- There is a gap in the literature regarding the association between anxiety and self-perceived body image without the variable of social media.
- To investigate the lack of information regarding this association, this poster will walk through the association between anxiety and self-perceived body image.

## Research Question

- Do people suffering from high levels of anxiety have a more extreme sense of themselves and their self-perceived body image in contrast to people with low levels of anxiety or no anxiety at all?

## Methods

### Sample

- Respondents were taken from the The U.S National Longitudinal Survey of Adolescent Health (ADDHEALTH) Wave 1 survey. ADDHEALTH is a survey representing adolescents in grades 7-12 across America with a sample size of 6,504

### Measures

- Anxiety was operationalised as the independent variable with a series of scaled statements regarding symptoms of anxiety. These symptoms were regenerated as into a combined score called AnxSum.
- The statements included: "You were bothered by things that don't usually bother you/You had trouble keeping your mind on what you were doing/You felt that you were just as good as other people/You felt fearful/You felt lonely/You felt that people disliked you." And "You experienced: Frequent crying/Trouble falling asleep or staying asleep/Trouble relaxing/Moodiness."
- Self-Perceived body image was operationalised via one question asking, "How do you think of yourself in terms of weight?" Responses were split into two categories, Extreme or Not Extreme, depending on if subjects viewed themselves as "Very Underweight/Overweight," or "Slightly Underweight/Overweight"/"About the Right Weight." This dependent variable was named Xtrmbodyim if respondents answered accordingly.
- The moderator of interest is sex (1=male, 2=female.)

## Results

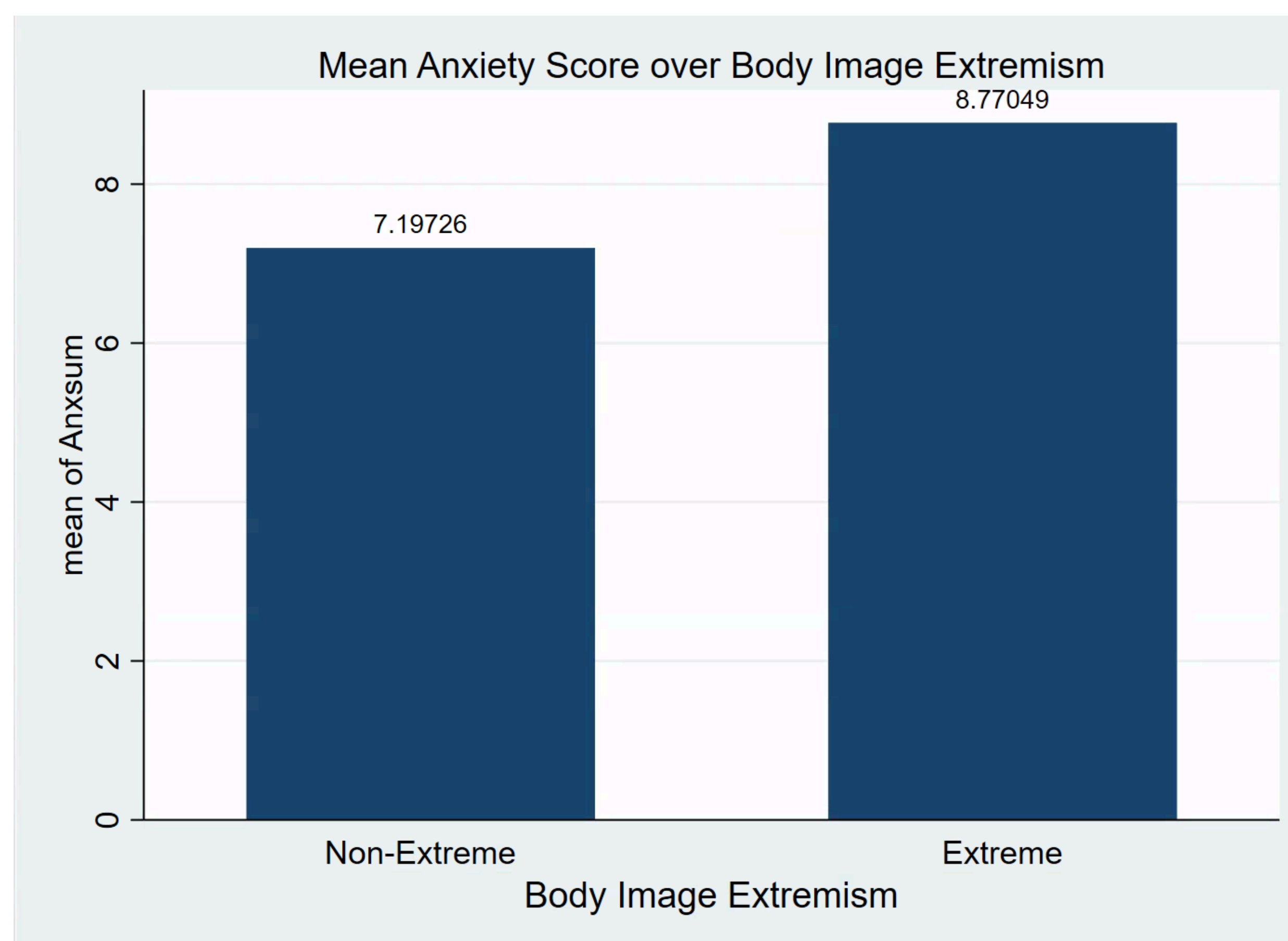
### Univariate

- The distribution of the anxiety score sum is approximately normal with a skewed right tail.
- Mean Anxiety Score: 7.68

### Bivariate

- An Analysis of Variance (ANOVA) revealed that those with an extreme self-perceived body image report a **significantly higher** number of anxiety symptoms (Mean=9.5, s.d.±4.7) compared to those without an extreme self-perceived body image (Mean=7.6, s.d.±3.9),  $F(1, 6489)=81.30$ ,  $p=0.0000$ .

Figure 1. Sum of Anxiety Symptoms and Presence of Self-Perceived Extreme Body Image

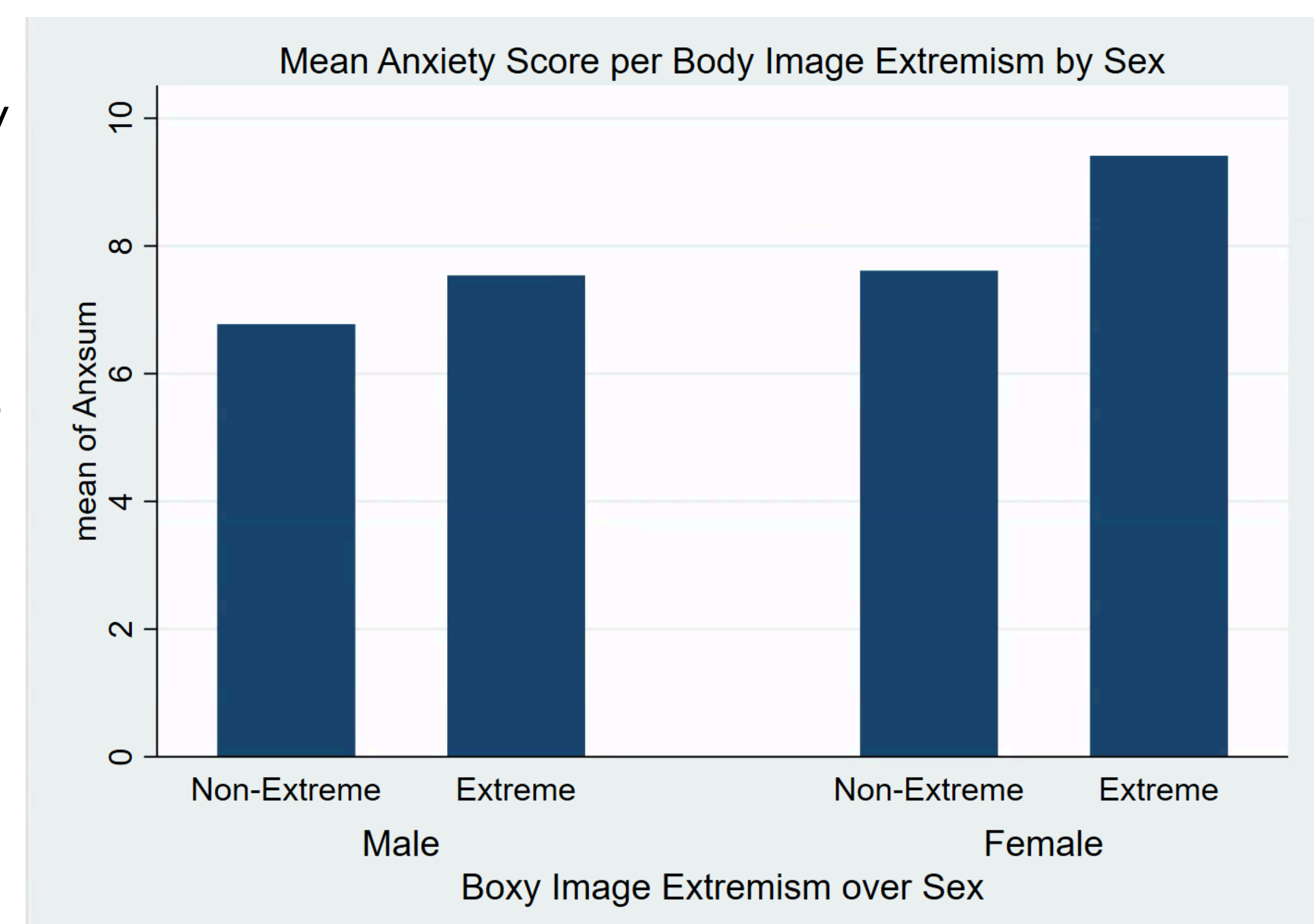


- People with a less extreme self-perceived body image have **significantly lower** anxiety symptom scores than those with extreme.

### Multivariate

- Sex is a moderator for the association between Anxiety and Extreme Body Image (Figure 2).
- After controlling for sex, sex did not change the significance of the main explanatory and response variables.
- Body Image Extremism is still significantly associated with anxiety ( $p<0.000$ ).

Figure 2. Sum of Anxiety Symptoms and Presence of Self-Perceived Extreme Body Image by Sex



- Somebody with a extreme body image is 1.10 times likely to have higher anxiety than someone without body extremism (OR=1.10).
- Females have a significantly higher likelihood of having an extreme self-perceived body image than males ( $p<0.000$ ).

## Discussion

- There is significant evidence to suggest that people with higher levels of anxiety are more likely to view their bodies as either being very underweight or very overweight. That being said, females are more likely to view their bodies in a more extreme way than males.
- These results are important because they could help to inspire preventative measures to be taken against anxiety to alleviate one's possible deprecated self body-image.
- Biases include self reported answers.
- The limitations of this study lead the results to be somewhat vague. To be more conclusive, the study would need to be done on multiple samples, multiple times, in different places. More specific questions would be helpful to limit variance.
- Further research could be done in this sector to include other covariates like education, age, geographic location, parental criticism, etc. This could give a more clear association needed to inform intervention tactics to help aid men and women to have healthier body images.