



# The Association Between Sibling Rivalry and the Presence of Signs of Disordered Eating in Adolescents

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## Introduction

- **Eating Disorders (EDs)** affect nearly **28.8 million** Americans and are one of the deadliest mental illnesses, sometimes leading to fatal physical illnesses like cancer and organ failure (ANAD, 2021).
- **50%** of teenage girls and **30%** of teenage boys show early signs of unhealthy weight control behaviors (Polaris, 2019).
- Contemporary research focuses on the impact of familial relationships (specifically parental relationships) in maintenance and recovery from EDs (Lanflisi, 2011).
- Limited information exists on the impact of sibling relationships, like sibling rivalry, on the etiology of EDs.
- Sibling relationships are included in the "clinical picture" but are rarely studied theoretically (Blessing, 2007).
- Research surrounding the impact of sibling relationships on ED etiology will allow for more effective risk mitigation.

## Research Questions

- Is there an association between sibling rivalry and the presence of signs of disordered eating in adolescents (grades 7-12)?
- Does the association between sibling rivalry and the presence of signs of disordered eating differ for males and females?

## Methods

### Sample

- Respondents (n=737) were drawn from participants who answered a question about sibling rivalry from Wave 1 (grades 7-12) of AddHealth, a national longitudinal study of over 20,000 adolescents in the U.S.

### Measures

- Sibling Rivalry (IV) was measured with a question about whether the participant or their sibling received more love. Responses were dummy coded on a scale from 1-5, and answers were dichotomized to represent sibling rivalry (1-2) or no sibling rivalry (3-5).
- Disordered Eating (DV) was measured by aggregating "yes" or "no" questions about common signs of disordered eating, like forced vomiting and laxative abuse. Results were scored and summed to represent presence ("yes" to  $\geq 2$  signs) or absence ("yes" to  $< 2$  signs) of disordered eating.

## Results

### Univariate

- Sibling Rivalry: **19.54%** (144) respondents reported that they dealt with sibling rivalry.
- Signs of Disordered Eating: **14.93%** (110) respondents showed signs of disordered eating.

### Bivariate

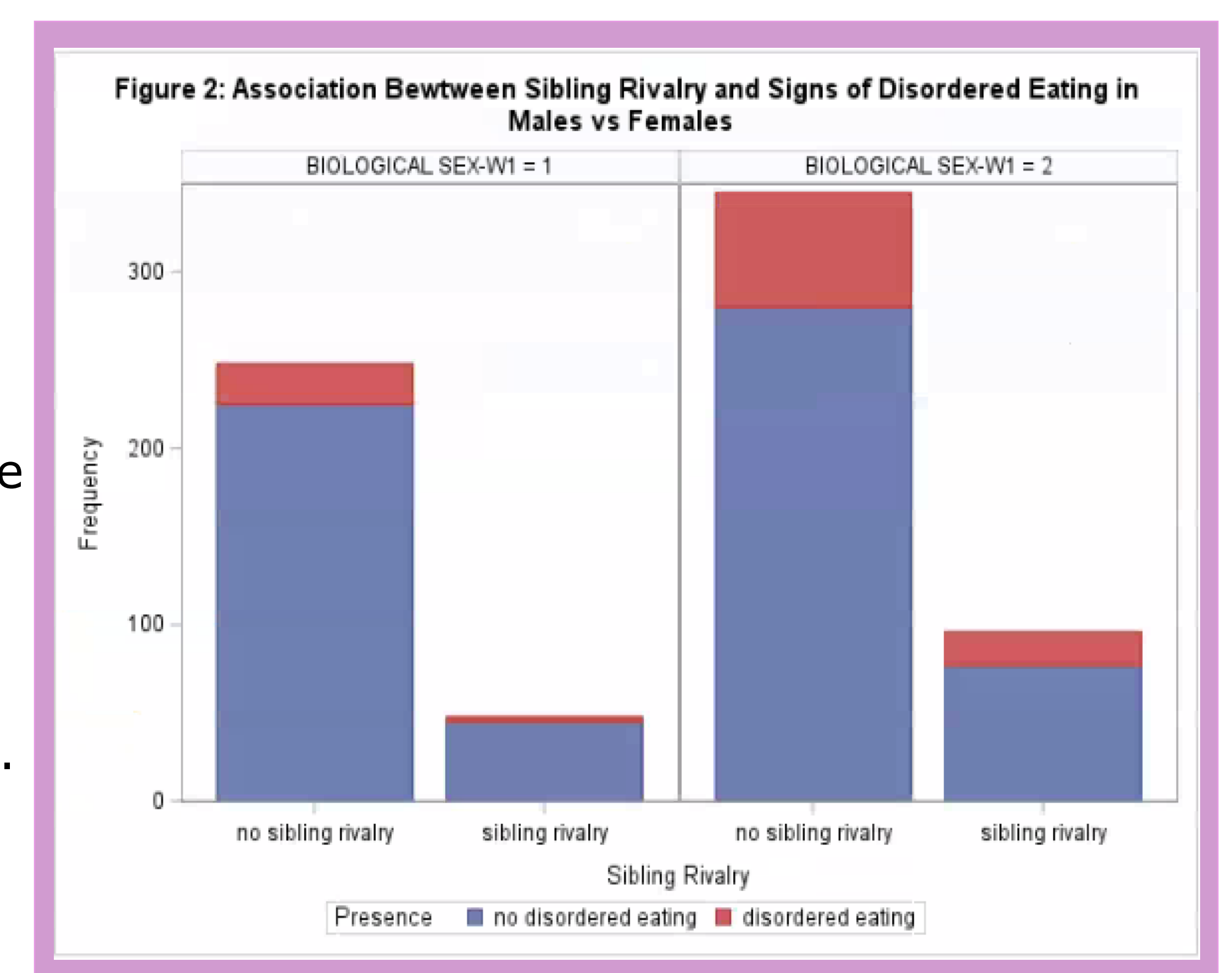
- Of the **593** respondents who did not experience sibling rivalry, **85.16%** did not show signs of disordered eating, whereas **14.84%** showed signs of disordered eating.
- Of the **144** respondents who experienced sibling rivalry, **84.72%** of respondents did not show signs of disordered eating, whereas **15.28%** showed signs of disordered eating.



A Chi-Square Test of Independence revealed no significant difference in the frequency of individuals experiencing disordered eating in either group. Thus, sibling rivalry is **not** significantly associated with the presence of signs of disordered eating ( $\chi^2=0.0175$ , 1 df,  $p<0.89$ ).

### Multivariate

- Biological sex does **not** appear to moderate the relationship between sibling rivalry and signs of disordered eating.
- Biological Sex is a **main effect** ( $B= 0.4476$ ,  $p\text{-value} < 0.0002$ ). This is consistent with the knowledge that eating disorders are more common in girls than boys.
- After controlling for biological sex, the association between sibling rivalry and disordered eating remains **insignificant** ( $B= -0.0171$   $p\text{-value} < 0.896$ ).



1 = males 2 = females

## Discussion

- There is no significant association between experiencing sibling rivalry and showing signs of disordered eating in the sample, even when considering biological sex. Sibling rivalry does not appear to be a significant factor in the early development of eating disorders. When introducing mitigation techniques for adolescents through programs like family therapy and early intervention in schools, perhaps sibling rivalry should not be a focus.
- Further research should be conducted into additional dimensions of sibling relationships to design comprehensive and effective eating disorder mitigation techniques that can be introduced in families early on.
- Upon casual exploration, participants who reported looking less like their sibling showed a higher frequency of disordered eating. Further research could explore perceived physical inferiority as a dimension of sibling relationships that may influence the etiology of eating disorders.