



The Association between Older Siblings and Sexual Knowledge in Individuals 15 Years of Age or Older

Tenley Abbott, Applied Data Analysis, Wesleyan University

Introduction

- Children's sexual knowledge is not only shaped by formal school education but also by their family.
- Past studies have found that the perception of older siblings' sexual practices influences sexual behaviors and attitudes of younger siblings. Adolescents who believe that their older sibling is not having sex value abstinence more than adolescents who believe their older sibling is having sex or being only-children (Almy et al., 2015).
- The perception of sibling relationship quality is associated with different levels of discussion about safe sex. The quality of a sibling relationship may have a protective function through increased discussion about safe sex practices (Kowal & Blinn-Pike, 2004).
- Older siblings influence how younger siblings communicate with parents about sex. Younger siblings are significantly less likely to talk with their parents about sex and sexual knowledge than their older siblings and than only-children (Pasqualini & De Rose, 2020).

Research Questions

- How do older sisters and brothers impact the sexual knowledge of an individual?
- Does difference or similarity of biological sex between the individual and their older siblings play a role in the association between older siblings and sexual knowledge?

Methods

Sample

- Respondents (n=4462) were drawn from the first wave of the U.S. National Longitudinal Survey of Adolescent Health (1995), a nationally representative survey of adolescents ranging from grades 7 to 12. Only adolescents 15 or older were given the sexual knowledge quiz.

Measures

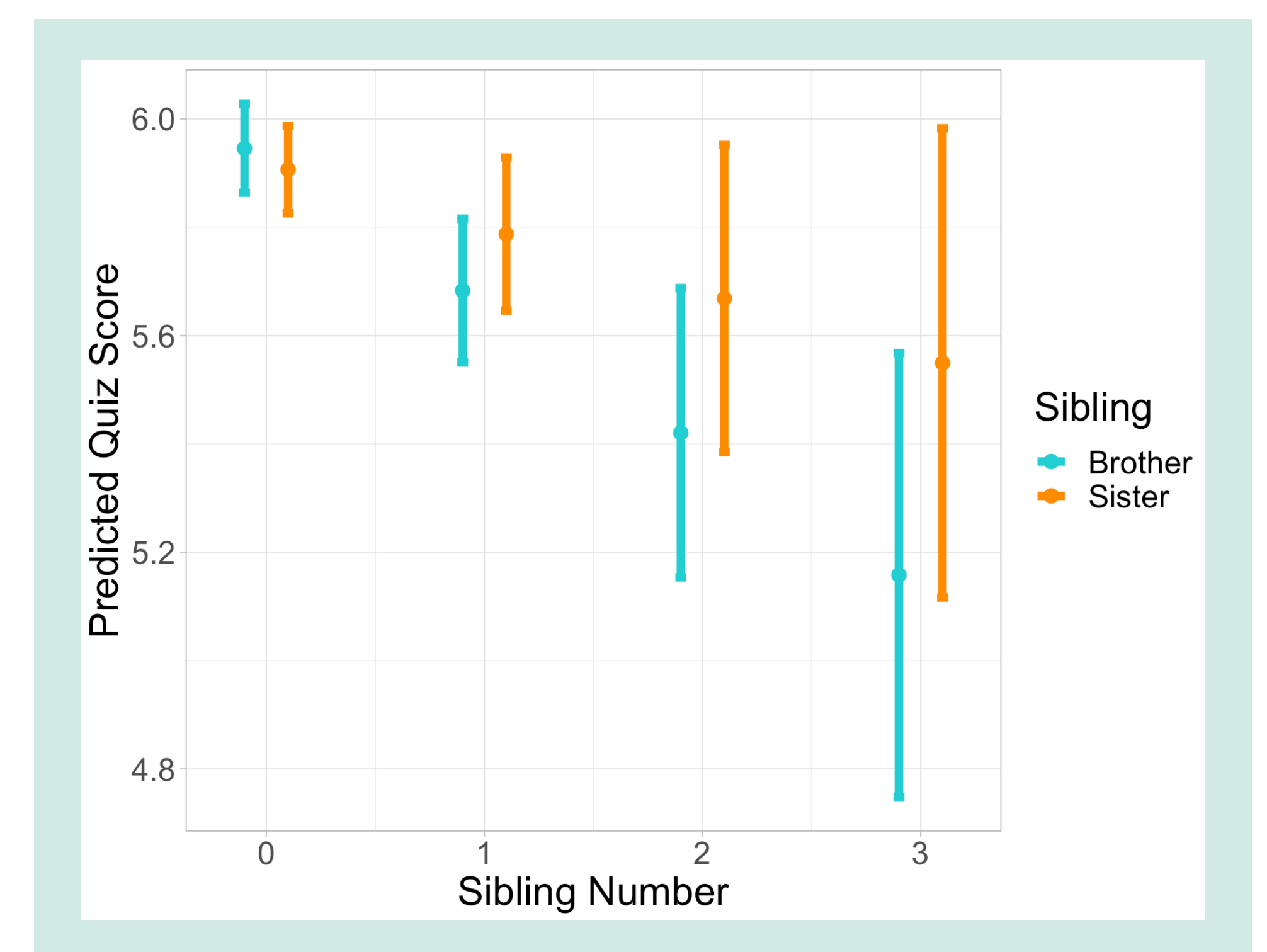
- Sexual knowledge was measured with true/false questions. Correctly answered questions were valued as 1, while incorrectly answered questions were valued as 0. Responses were then summed to create a quiz score. Quiz scores ranged from 0 to 10.
- A variable reflecting the number of total older sisters was created using the constructed variable of older siblings. The variable ranged from 0 to 3.
- A variable reflecting the number of total older brothers was created using the constructed variable of number of older siblings. The variable ranged from 0 to 3.

Results

Bivariate

- A Pearson correlation test showed that total number of **older brothers** was **significantly and negatively** associated with sexual knowledge **quiz score** ($r=-0.06$, $p<0.001$).
- A Pearson correlation test showed **no significance** between total number of **older sisters** and sexual knowledge **quiz score**.

Figure 1. Predicted Quiz Score Based on Number of Older Brothers and Older Sisters for Individuals 15 Years of Age or Older



Multivariate

- On average, a **male** individual is expected to score **0.387 points higher** on the sexual knowledge quiz than a female individual for each additional **older sister** ($B=0.387$, $CI\ 0.079\ to\ 0.696$, $p=0.0137$) (Figure 2).
- Sexual knowledge quiz score was **not significantly** associated with number of **older brothers** (Figure 3).

Figure 2. Predicted Quiz Score Based on Number of Older Sister for Male and Female Individuals

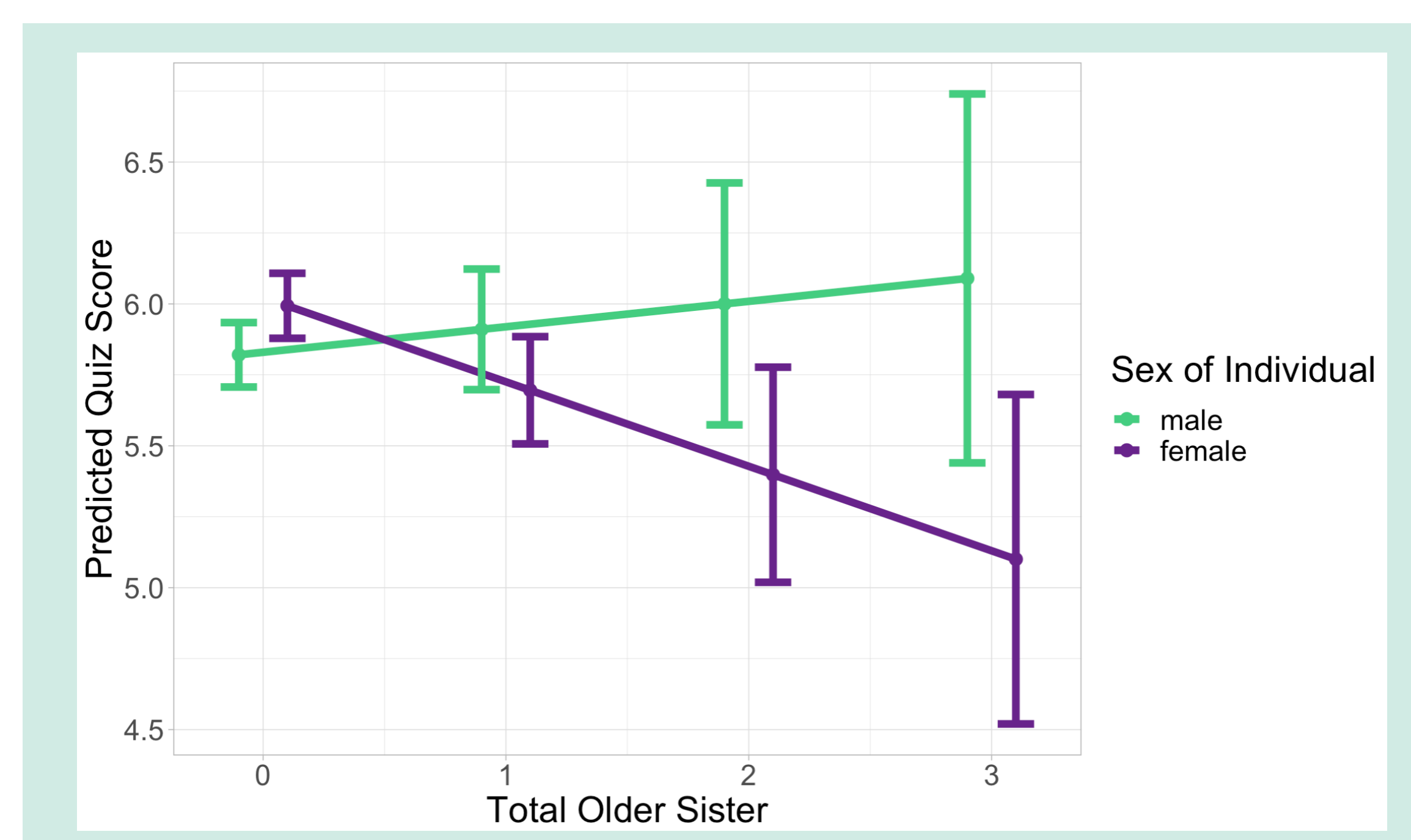
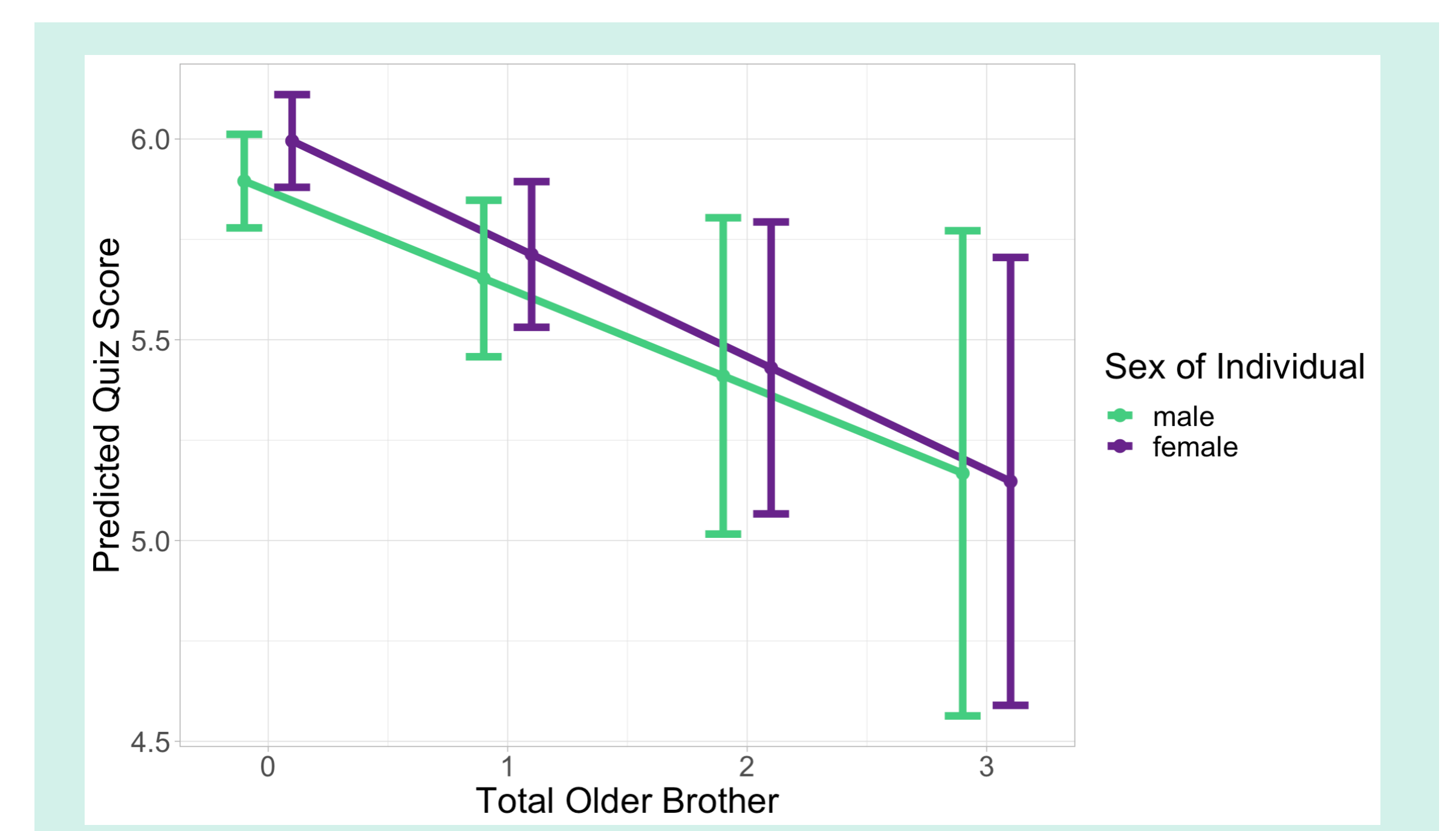


Figure 3. Predicted Quiz Score Based on Number of Older Brothers for Male and Female Individuals



Discussion

- Older brothers are negatively associated with younger siblings' sexual knowledge.
- Male individuals' sexual knowledge seems to benefit from having older sisters.
- Parents might use this information to make informed decisions about the sexual education of their children. Sexual health educators might use this information to create more comprehensive sexual education courses that extend beyond the classroom.
- Further research is needed to determine why older brothers are negatively associated with sexual knowledge and why male individuals benefit from older sisters while female individuals do not.