

# Exploring How Parental Psychological Distress Shapes Child Reading Achievement

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## INTRODUCTION

Prior research has linked parental involvement in academics to higher educational achievement in children, as well as positive outcomes in cognitive development and social-emotional functioning (Can & Ginsburg-Block, 2016). Other research further discovered the large impact parental psychological distress has on children's wellbeing but is largely unexplored in relation to child literary skills (Amrock & Weitzman, 2014).

### The Present Study

We aimed to investigate the link between parental psychological distress and child reading achievement using data from the National Project on Achievement in Twins (NatPAT). We ran a Pearson correlation to determine the strength and direction of relationship between the two variables, as well as a simple linear regression to determine if parental mental health predicts children's reading achievement.

### Hypothesis

We hypothesize that higher levels of parental psychological distress will be associated with lower reading achievement among children; similarly, lower levels of parental psychological distress will be associated with higher reading achievement in children.

## METHOD

### Participants

52 families had completed both the NatPAT survey containing the psychological distress scale and had available reading achievement data from the DIBELS assessment. This sample was comprised of 46 White participants, 3 American Indian/Alaskan Native participants, 2 Asian participants, and 1 Black/African American participant that additionally self-identified as Hispanic/Latino. Children's grades ranged from K-12.

## MEASURES

### Parental Psychological Distress

Parents were assessed on their levels of psychological distress using the Kessler Psychological Distress Scale (K10)

"During the last 30 days, about how often did...

1. ...you feel depressed?
2. ...you feel so depressed that nothing could cheer you up?
3. ...you feel hopeless?
4. ...you feel restless or fidgety?
5. ...you feel so restless that you could not sit still?
6. ...you feel tired out for no good reason?
7. ...you feel that everything was an effort?
8. ...you feel worthless?
9. ...you feel nervous?
10. ...you feel so nervous that nothing could calm you down?"

### Child Reading Achievement

Children completed Dynamic Indicators of Basic Early Literacy Skills (DIBELS) assessment as a measure of their literary ability. We looked specifically at the Oral Reading Fluency subscale. Child performance in the ORF is a predictor of reading comprehension performance on the FCAT-SSS and the SAT-10 (Roehrig et al., 2008).

## RESULTS

Overall, we did not find parent psychological distress as a whole to be significantly associated with children's reading achievement. However, several individual distress items were found to be significantly correlated:

### Pearson Correlation

We found a statistically significant positive relationship between psychological distress questions 2 and 3 with child reading achievement. This means that parents who reported feeling hopeless or so depressed that nothing could cheer them up were correlated with children having higher reading achievement, contrary to what our hypothesis predicted.

### Multiple Linear Regression

As reflected in figure 1, the multiple regression test found that questions 2, 8, 9, and 10 on the Kessler Scale of Psychological Distress were significant predictors of child reading outcomes. Questions 1, 3, 4, 5, 6, 7 had a p-value higher than 0.05 and were therefore insignificant to our results.

## CONCLUSIONS

The Kessler Scale of Psychological Distress relates each question to either anxiety (by measuring nervousness, stress, and agitation) or depression (measured by negative affect and fatigue) ("The Kessler Psychological Distress Scale," 2024). The questions that were predictors of child reading achievement pertained to both anxiety and depression, indicating that both of these parental stressors has an impact on child academia. Surprisingly, we found that as parental distress increased, child reading achievement increased with it. As found in Gilbert et al. (2017), parental psychological distress determines parental involvement in child academics. This could explain our findings since stressed parents involved in their child's academics will likely imprint a sense of urgency to be a high achiever.

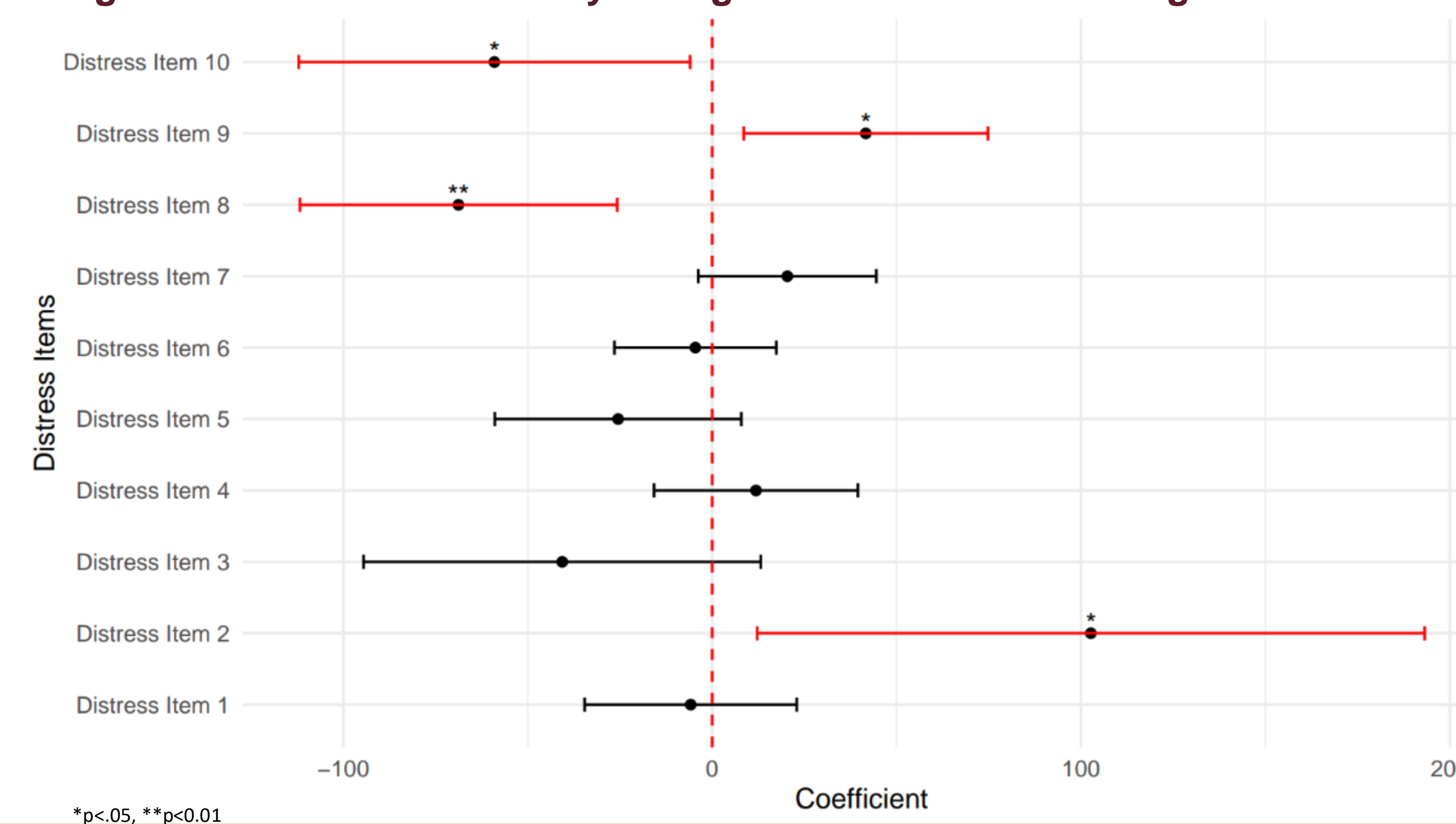
### Future Implications

Future studies could investigate the reasoning behind this positive correlation between parental stress and child reading achievement found in this study. The correlation of individual questions on the Kessler Psychological Distress Scale could further be studied in relation to their individual impact on child reading achievement, as opposed to studying the scale as a whole.

### Limitations

Small sample size: We received ORF data from 159 students and survey data from 1,206 students. Unfortunately, only 52 students had completed both the ORF assessment and the survey for the 2021-2022 school year, limiting our sample size to 52.

Figure 1. Coefficient Plot: Psychological Distress vs. Reading Achievement



## CITATIONS

