



# The effects of the COVID-19 pandemic on adolescents with a history of pathological anxiety

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## INTRODUCTION

- The coronavirus disease-2019 (COVID-19) was declared a global pandemic in March 2020.
- Disruptions caused by the pandemic, such as the closure of schools, were anticipated to have a lasting impact on the mental health of children and adolescents, particularly those with pre-existing mental health conditions.<sup>1</sup>
- We examined trajectories of anxiety and negative emotions and worries during the early weeks following COVID-related school closings and “safer at home” restrictions that closed non-essential businesses, banned gatherings, and limited exposure to people not in your household.
- Compared anxiety severity ratings at the onset of COVID restrictions to anxiety severity at a previous study visit, as well as changes over an 8 week period during COVID between girls with a range of anxiety.

## METHODS

Participants	AD (n=31)	Sub-AD (n=51)	Control (n=37)
Item Mean (SD)			
Age (years)	13.097 (1.535)	13.392 (1.387)	11.865 (1.475)
Child SCARED at onset of COVID restrictions	31.226 (12.585)	25.000 (14.328)	8.676 (8.586)
Parent SCARED at onset of COVID restrictions	26.581 (10.972)	17.510 (11.091)	7.892 (6.826)

- 119 female youth (9 to 16 years) that were recruited from prior studies on anxiety in preadolescent youth conducted over the previous 5 years.
- Participants previously reported a range of anxiety, including:
  - Meeting DSM-5 criteria for generalized, separation, or social anxiety disorder (AD)
  - Experiencing subthreshold symptoms of anxiety, but does not meet DSM-5 criteria for an AD (Sub-AD)
  - No anxiety (Control)
- Predominantly white (85.7%), upper-middle class families with low financial strain and low exposure to COVID-19.
  - E.g. only 9.3% of families in this sample lost a job as a result of the pandemic, 22.48% had reduced ability to earn money, and .68% did not have health insurance

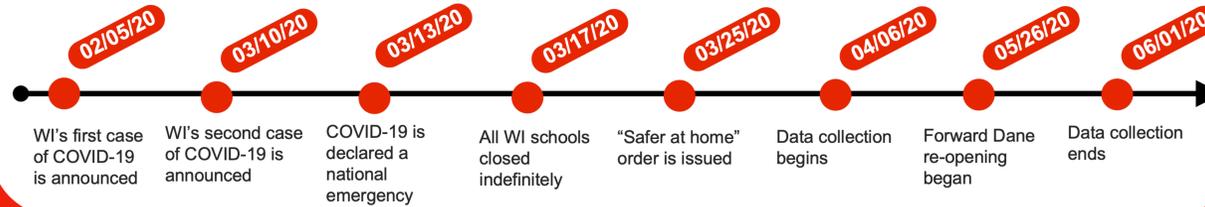
## Measures

- Parents and children completed up to 9 repeated assessments over an 8 week period from April 6th, 2020 to June 1st, 2020, including
  - Parent and Child Screening for Child Anxiety Related Disorders (SCARED)<sup>2</sup>: a measure of anxiety severity
  - CoRonavruS health and Impact Survey (CRISIS)<sup>3</sup>: a measure created in response to the COVID-19 pandemic to measure mood, daily behaviors, stress, and exposure to COVID
- SCARED scores from participant’s previous study visit were used as a measure of pre-COVID levels of anxiety.

## Analyses

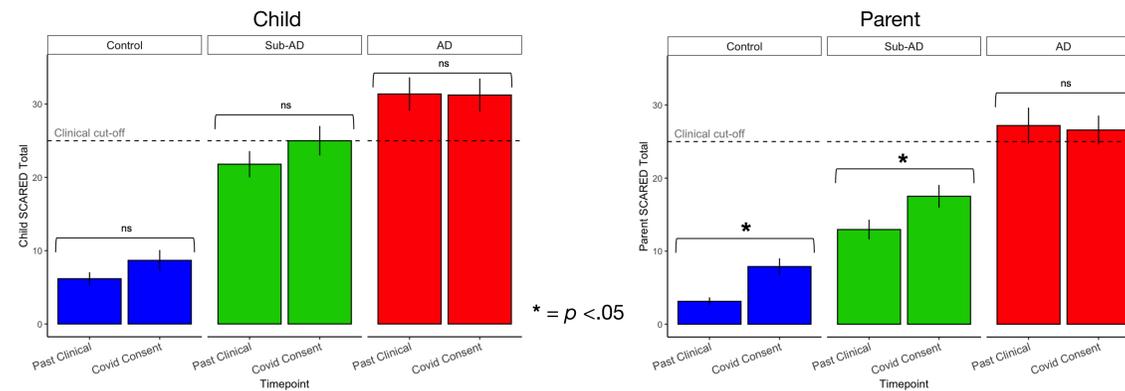
- To evaluate the effect of a history of pathological anxiety on response to the pandemic, a repeated measures analysis of variance (ANOVA) was used to compare anxiety ratings collected at past study visits compared to April 2020 during COVID-19.
- A repeated ANOVA was also used to compare retrospective and current ratings of the emotions/worries factor from the CRISIS measure.
- A linear mixed effects model was used to analyze the trajectories of both child and parent SCARED scores, collected weekly during April and May of 2020.

## TIMELINE

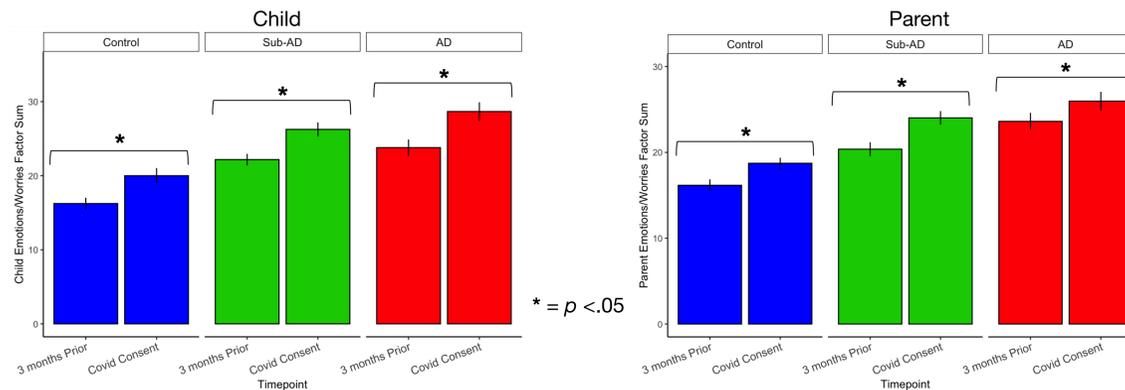


## RESULTS

Pre-pandemic to the onset of the pandemic  
Changes in anxiety - past assessment vs. onset of COVID restrictions

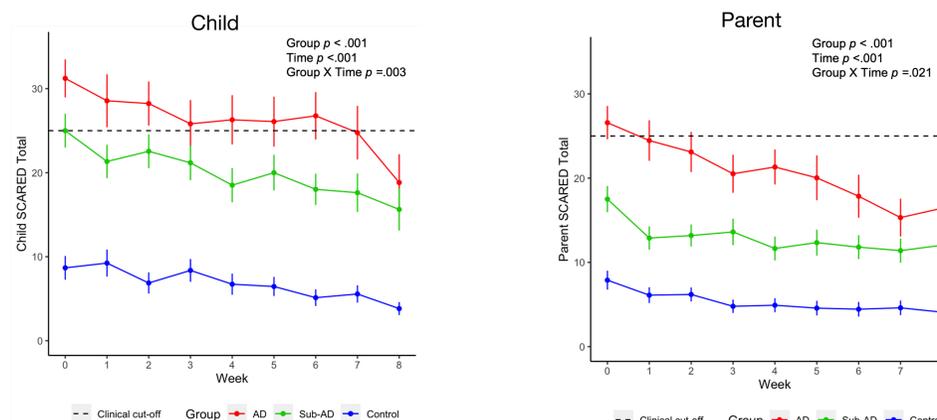


Retrospective 3 months prior to the onset of the pandemic  
Changes in negative emotions/worries - retrospective ratings of past state vs. state at onset of COVID restrictions



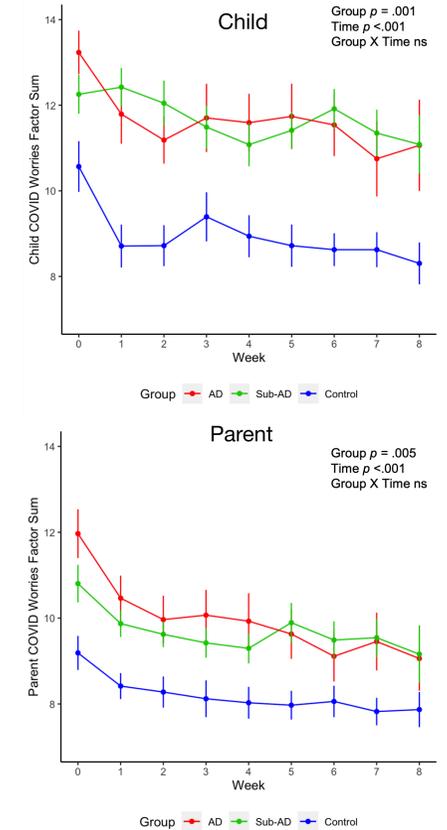
## Trajectory of anxiety ratings

Decreasing anxiety severity throughout an eight-week period during the COVID-19 pandemic



## RESULTS - Trajectory of COVID worries

Decreasing COVID-19 related worries throughout an eight-week period during the COVID-19 pandemic



## CONCLUSIONS

- The control and sub-AD groups saw a significant increase in anxiety at the onset of the pandemic, whereas anxiety severity in the AD group was stable.
- All three groups reported a significant increase in negative emotions at the onset of COVID-19 compared to retrospective ratings. However, this increase did not differ between groups.
- Results suggest that, in a sample of preadolescent girls whose families experienced minimal financial and health-related stress during COVID-19, a history of pathological anxiety was not associated with a significantly greater increase in anxiety and distress at the onset of COVID-19.
- Additionally, anxiety severity, perceived COVID stress, and COVID-related worries decreased over time during the early months of COVID-19, regardless of anxiety status.

## REFERENCES

1. Golberstein, E., Wen, H., & Miller, B. F. (2020). Coronavirus disease 2019 (covid-19) and Mental Health for Children and Adolescents. *JAMA Pediatrics*, 174(9), 819. <https://doi.org/10.1001/jamapediatrics.2020.1456>
2. Birmaher, B., Khetarpal, S., Brent, D., Cully, M., Balach, L., Kaufman, J., & Neer, S. M. (1997). The screen for child anxiety related emotional disorders (scared): Scale construction and psychometric characteristics. *Journal of the American Academy of Child & Adolescent Psychiatry*, 36(4), 545-553. <https://doi.org/10.1097/00004583-199704000-00019>
3. Nikolaidis, A., Pakstarian, D., Alexander, L., Derosa, J., Dunn, J., Nielson, D. M., Dronoy, I., Kang, M., Douka, I., Bromet, E., Milham, M., Stringaris, A., & Merikangas, K. R. (2021). The Coronavirus Health and Impact Survey (CRISIS) reveals reproducible correlates of pandemic-related mood states across the Atlantic. *Scientific Reports*, 11(1). <https://doi.org/10.1038/s41598-021-87270-3>