**Youth Executive Function and Experience During the First Year of the COVID-19 Pandemic**

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**Introduction**

- Executive function (EF) is a collection of mental tools needed to regulate one’s thoughts and actions. Three commonly studied sub-domains are inhibition, updating, and switching (Engelhardt et al., 2019; Friedman & Miyake, 2017; Karr et al., 2018).
- Early EF abilities have been shown to provide a protective effect against later mental distress in the face of adverse childhood experiences (e.g., Tsai et al., 2020).
- The COVID-19 pandemic is a global stress-inducing context for children and adolescents.
- The goal of this study was to assess whether pre-pandemic EF, or its growth over time, predicted COVID-19-era social, cognitive, and emotional experience.
- It has hypothesized that better COVID-19 functioning would be predicted by:
  1. Better pre-pandemic EF abilities;

**Methods**

**Participants**
- Austin area community sample started in 2016
- 79 participants had at least one diagnosis (ADHD = 67)
- 69 females, 75 males, 3 non-binary, and 2 preferred not to say
- Two COVID-19 Timepoints:
  1. May to July of 2020 (n = 134).
  2. January to March of 2021 (n = 106)

**Pre-Pandemic Executive Function Measures** (Engelhardt et al., 2015; Engelhardt et al., 2019)
- Performance was assessed as accuracy. Common EF domain:
- Coefficients were based on a composite score of the three domains.

**COVID-19 Adolescent Symptom and Psychological Experience Questionnaire (CASPE)** (Ladouceur, 2020)
- Higher score referred to more positive experience.
- Variables: Social, Cognitive, and Emotional Experience

**Pre-pandemic EF growth over time did not predict early- and mid-pandemic response**

**Summary & Conclusions**

- These findings suggest that more mature pre-pandemic cognitive abilities could allow for greater youth stress-induced rumination and worry, leading to worse mid-pandemic emotional and cognitive functioning (Alloy & Abramson, 2007; Perica et al., in press).
- Executive function did not predict youth early- and mid-pandemic experience, suggesting more similar responses across EF abilities when COVID-19 started.
- Pre-pandemic EF growth did not predict early- and mid-pandemic experience, indicating that level of cognitive abilities were more important than their amount of change preceding COVID-19.
- Better processing speed predicted better social experience, suggesting a protective role.

**Future Directions**

- Assess youth sleep behaviors before COVID-19 as predictor of pandemic-era functioning.
- Compare pre- and post-pandemic EF abilities.
- Explore the role of EF abilities in other stress-inducing situations.

**References**


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