

The Effects of COVID-19 and Online Experience on Preschoolers' Emotional Development



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Introduction

- COVID-19 has presented familial and online stressors in children that can increase risks to mental health and well-being (Verlenden et al., 2021).
- Parents of children receiving virtual instruction more frequently reported that their child's mental health worsened during the pandemic (Verlenden et al., 2021).
- Current levels of anxiety and depression not only highlight the need to address emotional distress for children during the epidemic, provide researchers with scientific fundamentals to formulate targeted interventions based on the significant influencing factors (Duan et al., 2020).
- These reflect higher prevalence of negative indicators of well-being for children receiving virtual instruction or familial stressors that come with COVID-19 as opposed to children not experiencing these influences.

Methods

Participants

- The Child Development Lab collected data from US families from December 2021 to January 2021 via Amazon Mechanical Turk.
- 248 families including children (*Mage* = 65months; 51% female), mothers (*Mage* = 31yrs; 75.3% College degree or above; 57% full-time job), and fathers (*Mage* = 34yrs; 80.4% College degree or above; 57% full-time job)
- Ethnicity (European American 42.3%; Native American or Alaska Native 26.2%; African American 7.2%; Asian 6.5%; Hispanic or Latino 6.04%; Multi-ethnicity 3.2%; Other 2.8%)

Measures

- Emotional reactivity:** Parents responded a 9-item subscale from the Child Behavior Checklist (e.g., "My child is disturbed by any change in routine"; $\alpha = .896$)
- Anxiety:** Parents responded a 7-item subscale from the Child Behavior Checklist (e.g., "My child gets too upset when separated from parents"; $\alpha = .827$)
- Own electronic device:** Parents responded whether their children had their own electronic devices that could access online.
- Online experience:** Parents responded two questions asking how many hours their children spent online school and recreational online a day.
- Covid-19 experience:** Parents responded two questions asking whether their family members in the same household or extended family members had contracted Covid 19.

Results

- ANOVA results indicated there was significant difference in children's emotional reactivity by family members' covid-19 experience (Figure 1), online school experience ($F(1,232)=8.65, p = .004$) and possession of own electronic device ($F(1,232)=7.78, p = .006$). Children's anxiety was also significantly different by family members' covid-19 experience (Figure 2), online school experience ($F(1,232)=8.62, p = .004$), and possession of own electronic device ($F(1,232)=8.19, p = .005$).

Figure 1. Emotional reactivity by family member's covid-19 experience

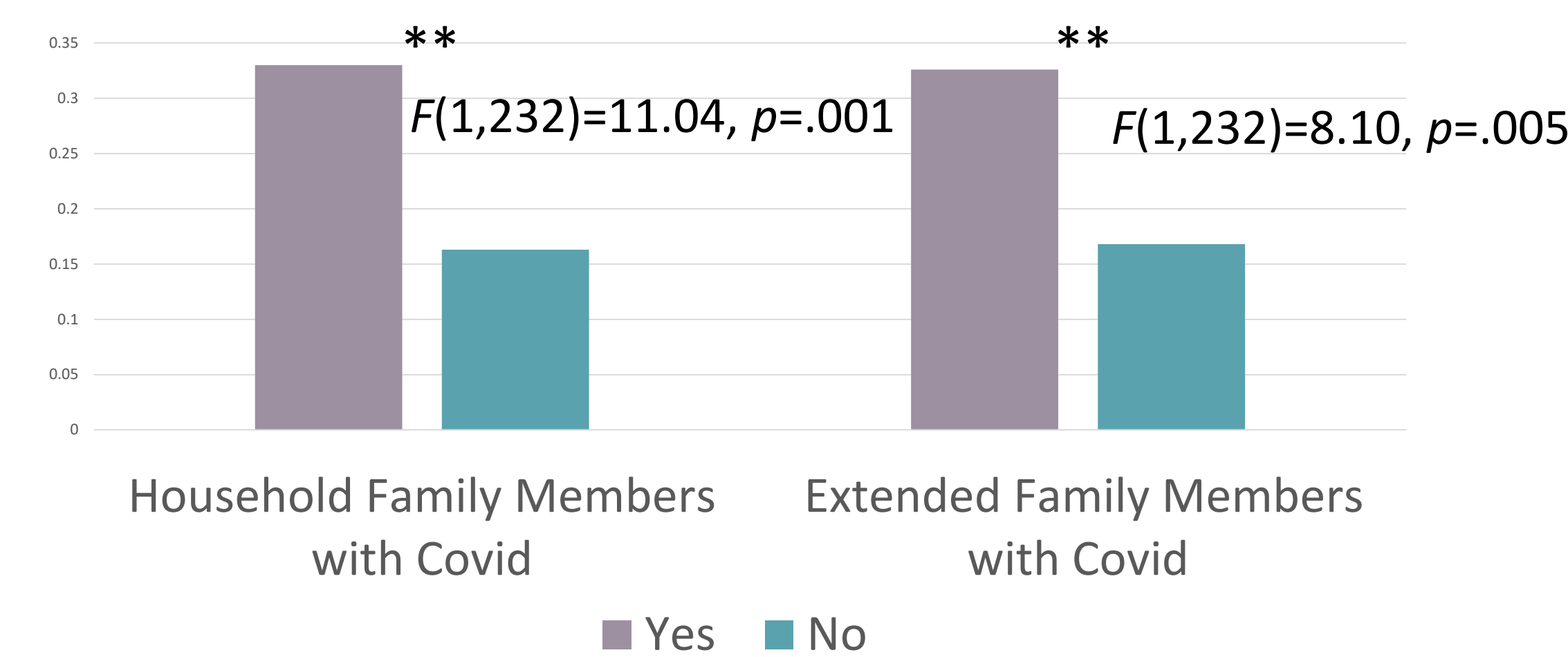
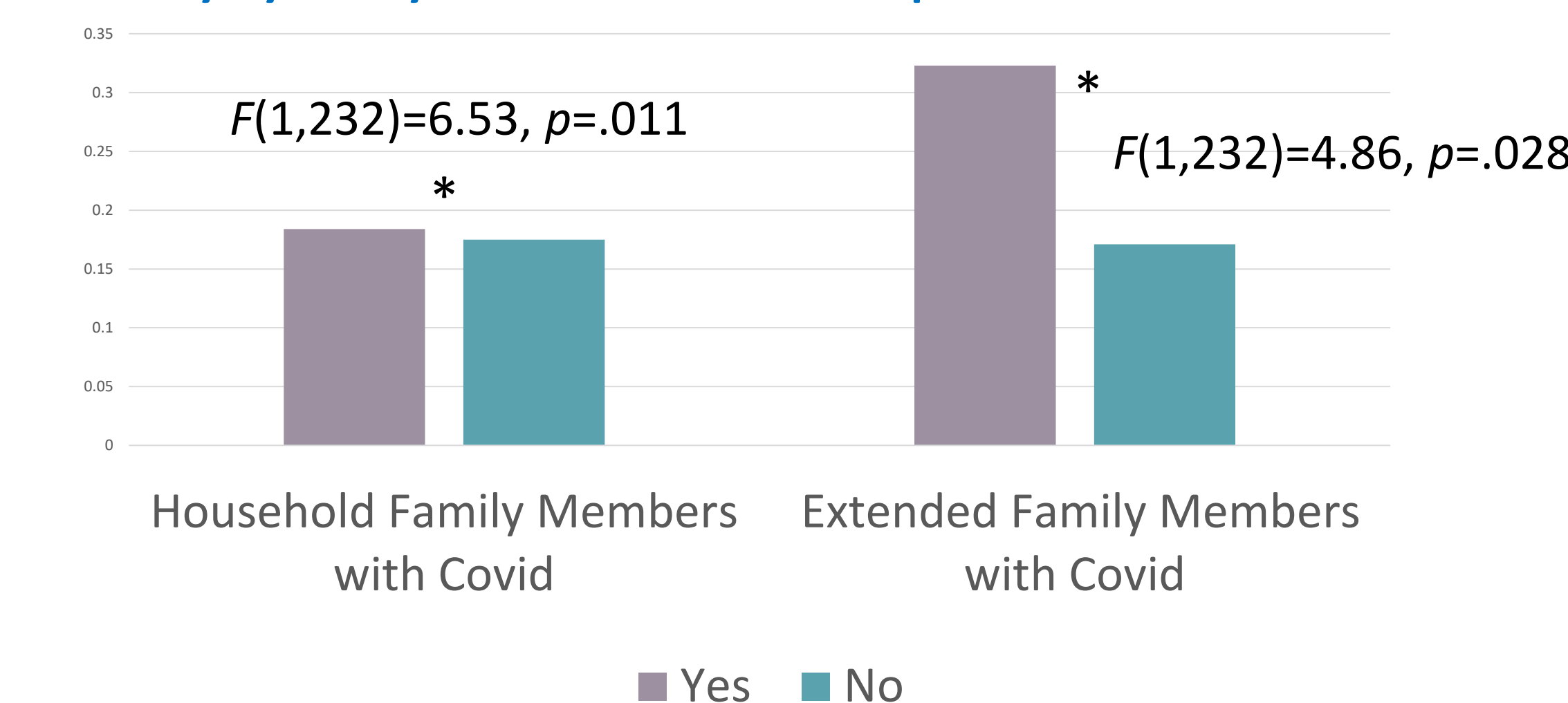


Figure 2. Anxiety by family members' covid-19 experience



- The result of linear regression analyses (Table 1 & 2) indicated that children's recreational online use hours significantly predicted their emotional reactivity ($b=.749, se=.337, p=.028$) and anxiety ($b=.532, se=.259, p=.042$)

Table 1: Regression on Children's Emotional Reactivity

	B	Std. Error	P-value
(constant)	14.467	1.17	.000
Hours Online School	.164	.336	.626
Hours Online Recreationally	.749	.337	.028

Table 2: Regression on Children's Anxiety/Depression

	B	Std. Error	P-value
(constant)	11.302	.900	.000
Hours Online School	.111	.258	.669
Hours Online Recreationally	.532	.259	.042

Bivariate correlations among study variables

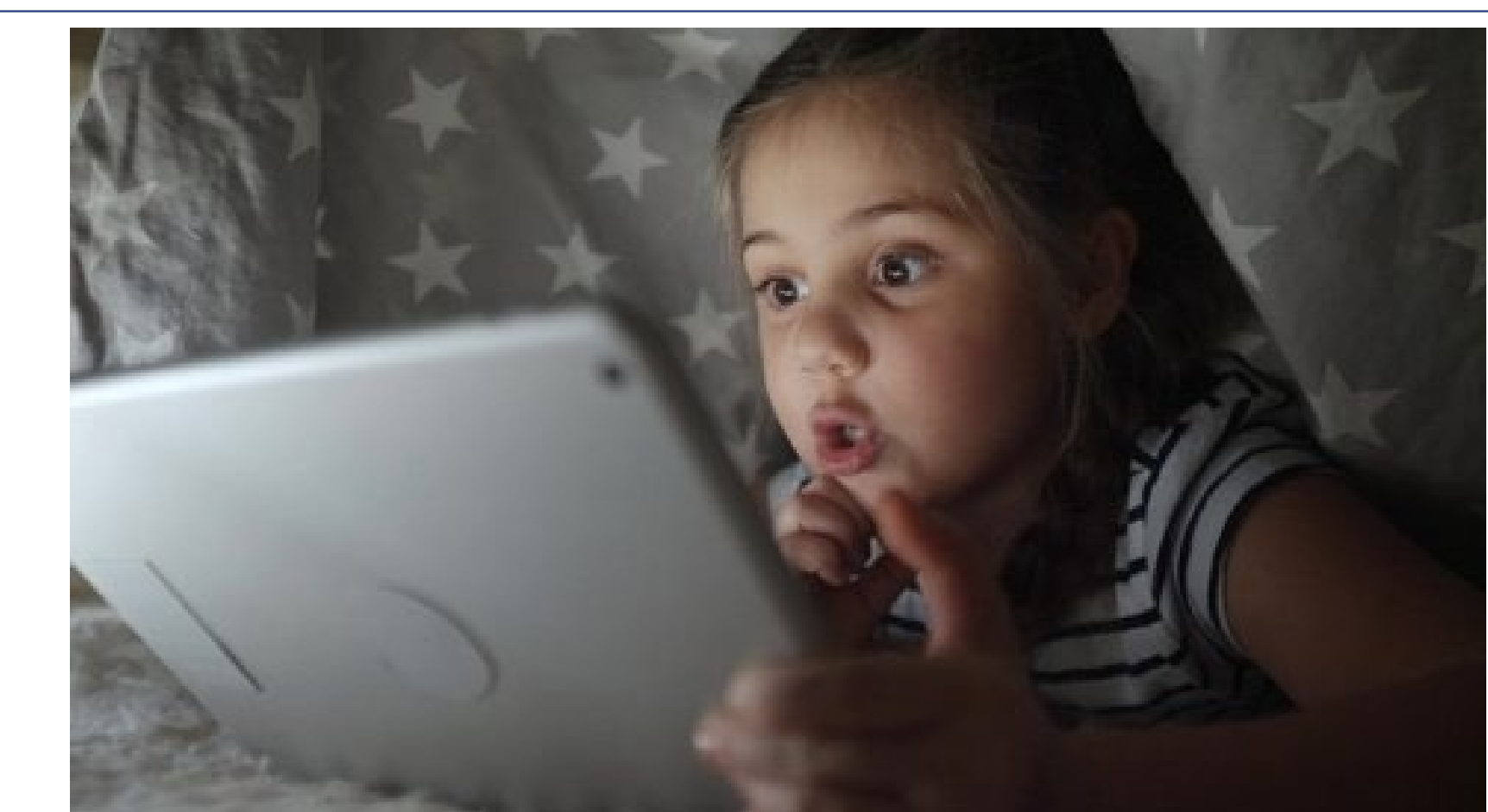
	Emotional Reactivity	Anxiety	Online School	Online Recreationally
Emotional Reactivity	-			
Anxiety	.864***	-		
Online School	.215*	.191*	-	
Online Recreationally	.098	.079	.600***	-
Mean	16.82	12.89	3.90	2.68
SD	5.16	3.92	1.73	3.16

***Correlation is significant at the 0.01 level

*Correlation is significant at the 0.05 level

Discussion

- The current study found significant results between familial stressors due to COVID-19 as well as online experience on preschoolers' emotional development. Importantly, we found that hours of recreational online use, not hours of online school, had significantly increased children's emotional reactivity ($p = .028$) and anxiety ($p = .042$).
- Consistent with Verlenden et al. (2021) and Duan et al. (2020), our study found that during the epidemic there is a strong correlation among young children's anxiety, COVID-19, and online presence.
- Children are inevitably going to encounter adverse experiences when they use digital technology, this is not directly related to the time they spend online, rather what they taking in recreationally. This brings up the point that more attention should be paid to what children *do* online, the content they encounter, and their life environment and support networks in general.
- Further research should focus on what children are being exposed to recreationally on the internet, rather than the number of hours they may spend in online schooling regarding anxiety in young children. Questions that could be considered are does spending excess time recreationally online impact a child's social development? Furthermore, how does this excess time online impact other mental health issues? Does managing a child's time online benefit their emotional development or should preschoolers not have access to online activities?



References

- Duan, L., Shao, X., Wang, Y., Huang, Y., Miao, J., Yang, X., & Zhu, G. (2020). An investigation of mental health status of children and adolescents in China during the outbreak of COVID-19. *Journal of affective disorders, 275*, 112–118. <https://doi.org/10.1016/j.jad.2020.06.029>
- Verlenden JV, Pampati S, Rasberry CN, et al. Association of Children's Mode of School Instruction with Child and Parent Experiences and Well-Being During the COVID-19 Pandemic — COVID Experiences Survey, United States, October 8–November 13, 2020. *MMWR Morb Mortal Wkly Rep* 2021;70:369–376. <http://dx.doi.org/10.15585/mmwr.mm7011a1external.icon>.