The Impact of the COVID-19 Pandemic on the Mental Health, Physical Health, and Media Use of College Students With ADHD

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The Impact of the COVID-19 Pandemic on the Mental Health, Physical Health, and Media Use of College Students With ADHD

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HYPOTHESIS

The COVID-19 pandemic quarantine had a significant impact on the behavior and symptoms of students with ADHD. One of our a priori hypotheses were specifically the pandemic would interact with the college students' ability to focus/concentrate. Symptoms and behaviors were reported by students asked about their experiences three months prior to the onset of the pandemic as well as their then current experience during the COVID-19 pandemic/quarantine summarized over a two-week period.

BACKGROUND

The COVID-19 pandemic is an unforeseen global health emergency that has major potential implications on health and well-being (Holmes et al., 2020).

Individuals with ADHD are particularly vulnerable to the distress caused by the pandemic, and this might lead to them having increased behavioral problems (Cortese et al., 2020), and as shown in previous disease outbreaks, negative psychological effects (Brooks et al. 2020). The changes in routine, structure, and social contact associated with COVID- 19 restrictions, as well as increasing uncertainty, may exacerbate ADHD symptoms and associated problems (Cortina et al., 2020).

As working from home will be a significant part of our post-COVID economy (Bloom, 2020), this study could improve future treatment interventions for therapists and clinicians to use when working with individuals with ADHD.

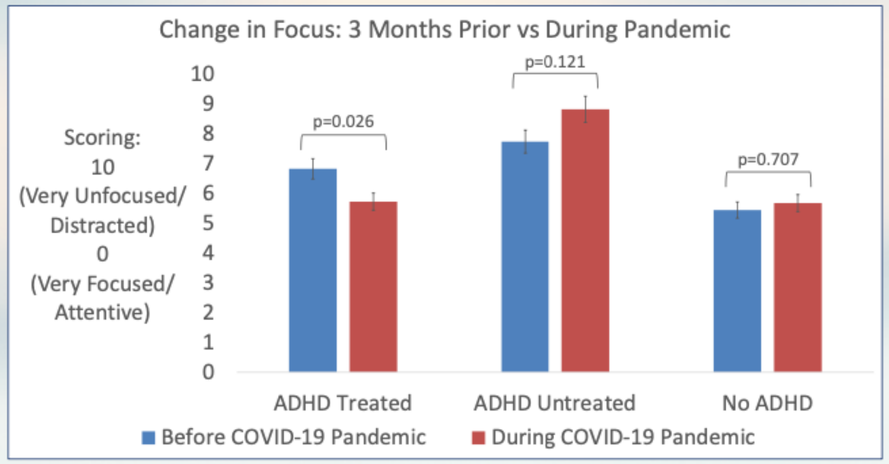
Understanding the impacts of this pandemic for individuals with ADHD will help ensure that supports are instituted and modified to meet their specific needs.

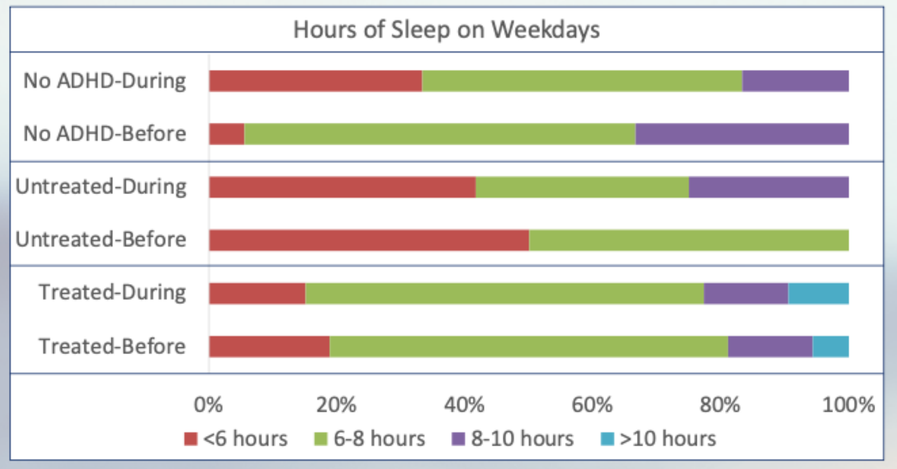
METHODS

Participant data was collected via a modified version of the CoRonavIruS Health Impact Survey (CRISIS) V0.3 via online Google Forms survey. The CRISIS is a self-report assessing various aspects of the social, emotional, and physical impacts of the COVID-19 pandemic on the subject. The CRISIS consists of 64 items Likert items, and the modified version has 91 items, with the additional items comparing participant responses from before the pandemic (retrospective) to their current responses during the COVID-19 pandemic/quarantine (Nikolaidis et al., 2020). In this within-subjects design paired-t-tests were performed to identify significant changes between timepoints. A between-subjects design was not possible due to a small sample size. Treatment effects evaluated include ADHD diagnosis, ADHD treatment, sex, grade level, work status, job loss, and medium of education.

RESULTS

The mean age of the college students was 22 years (SD=4.07), and the majority were female (72.4%). Within our sample population (n=86), we saw mostly similar demographic breakdowns (sex, grade levels) amongst the various strata when grouped by the following: college students diagnosed ADHD not taking ADHD medication (n=12), college students diagnosed ADHD taking ADHD medication (n=53), and college students without ADHD (n=18). The ADHD treated subgroup saw a significant increase in their ability to focus ($p=0.026$), whereas the ADHD untreated group ($p=0.121$) and No ADHD group ($p=0.707$) did not meet the threshold of significance. The No ADHD subgroup saw a significant decrease in the hours of sleep on weekdays ($p=0.007$), whereas the ADHD treated group ($p=0.381$) and No ADHD group ($p=0.305$) did not meet the threshold of significance. Several other significant changes were observed in some groups, whereas most behaviors and symptoms saw no significant changes between time points. We noticed several near-significant trends within groups ($0.05<p<0.15$). Throughout our analysis, we used a standard alpha of $\alpha = 0.05$.





CONCLUSION

The few significant changes observed suggest that treatments did impact specific outcomes, and that the COVID-19 pandemic did significantly impact the variables under investigation. In the face of large amounts of no significant changes between time points the results can likely be explained by limitations of the study design. Limitations include our smaller sample size, changes to the CRISIS questionnaire, differences in certain demographic composition between strata, and analytic methodology of the survey response analysis. A few interesting observations considering these limitations were observations of trends amongst some variables which did not meet the threshold of significance, as well as two interesting changes, the positive ADHD diagnosis and treatment subgroup saw a significant increase in their ability to focus ($p=0.026$), and the negative ADHD diagnosis subgroup saw a decrease in the hours of sleep on weekdays ($p=0.007$). These results suggest that treated college students saw an improvement in ability to focus while quarantined, in contrast to the decrease in ability to focus to the untreated college students. While preliminarily observed in this pilot study, these findings suggest a possible interaction between ability to focus and medication. We would like to address limitations and future studies will increase sample size to explore this potential interaction in greater detail. The observed significant change in focus was found to be unrelated to the change in sleep, which is one of many physiological variables that might covary with focus. Other variables that might covary with focus such as exercise, and social media use had no significance.

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