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Objective: The Youth Risk Behavior Survey (YRBS), conducted by the United States Centers for Disease Control and Prevention (CDC) in 2019, revealed that a large percentage of boys (30%) and girls (45%) reported serious difficulty concentrating, remembering, or making decisions as a result of a physical, mental, or emotional problem. In 2021, the CDC conducted the Adolescent Behaviors and Experiences Survey (ABES). The ABES included similar methodology and content as the YRBS. This study analyzed ABES data to examine correlates of perceived cognitive impairment among high school students in the United States during the COVID-19 pandemic.
Participants and Methods: The ABES was a one-time, online survey that was conducted to assess and evaluate the challenges that high-school aged youth experienced during the COVID-19 pandemic. Students' perceived cognitive impairment was assessed using the same question used in the 2019 YRBS: 'Because of a physical, mental, or emotional problem, do you have serious difficulty concentrating, remembering, or making decisions?' Response options were binary: 'Yes' or 'No.' The students' responses were evaluated in relation to nine adversity, mental health, and lifestyle variables.
Results: Participants were 6,992 students, age 14 to 18, with 3,294 boys (47%) and 3,698 girls (53%). A large proportion endorsed experiencing serious difficulties concentrating, remembering, and making decisions (45%). Girls (56%) were significantly more likely to endorse perceived cognitive impairment compared to boys (33%) [$\chi2(1)=392.55$, $p<.001$; OR=2.66, 95% CI=2.41-2.93]. Youth who reported that their mental health was poor most of the time or always were very likely to report perceived cognitive impairment (boys: 67%; girls: 81%). Binary logistic regressions were used to examine the associations between perceived cognitive impairment, adversity, and lifestyle variables while controlling for mental health. These analyses were conducted separately for boys [$\chi2(9)=596.70$, $p<.001$; Nagelkerke R2=.24] and girls [$\chi2(9)=883.35$, $p<.001$; Nagelkerke R2=.30]. After controlling for current mental health, significant independent predicters of cognitive problems in boys and girls included: a lifetime history of discrimination based on race or ethnicity, lifetime history of being sexually assaulted or abused, lifetime history of using illicit drugs, being bullied in the past year, current marijuana use, and getting insufficient sleep (5 of fewer hours per night). Participation in sports and exercising regularly were both independently associated with lower rates of cognitive impairment.
Conclusions: Perceived cognitive impairment was endorsed by a strikingly high percentage of high school students in 2021 during the COVID-19 pandemic. More than half of high school aged girls and one third of boys reported having serious difficulty concentrating, remembering, and making decisions. These rates are considerably higher than in 2019. Current mental health, unfair treatment because of race or ethnicity, being sexually assaulted, being bullied, drug use, and insufficient sleep were associated with perceived cognitive impairment. Indicators of a physically active lifestyle (participation in sports and exercising regularly) were associated with lower rates of cognitive problems.

Categories:
Assessment/Psychometrics/Methods (Child)
Keyword 1: adolescence
Keyword 2: assessment
Keyword 3: learning
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2 Neuropsychological Test Performance Following Acute COVID-19 Infection Recovery: A Case Control Study

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Objective: Cognition has been identified as an area of priority in examining health impacts of COVID-19 infection, and evidence suggests the virus invades the brain, with potential for long-term cognitive impact. Studies utilizing screening measures have reported cognitive sequelae (e.g., attention disorder, executive dysfunction) of the post-COVID-19 condition (i.e., long-haulers). More extensive examination of cognitive difficulties via comprehensive

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neuropsychological assessment is critical to informing treatment for those experiencing cognitive or functional difficulties post-infection. We aimed to comprehensively evaluate cognitive resiliencies and vulnerabilities of acutely recovered COVID-19 patients, across key domains (i.e., attention, processing speed, language, visuospatial abilities, memory, executive functioning), compared to healthy controls.
Participants and Methods: Adults (N=103; aged 19-85; 69.2% female) who had COVID-19 at least three months prior (n=50) and those with no history of infection (n=53) completed demographic and health questionnaires via Qualtrics, along with measures of depressive (CES-D) and anxiety (GAD-7) symptoms, the Lawton-Brody Instrumental Activities of Daily Living (IADL) Scale, and a measure of subjective cognitive difficulties (SCD-Q). Participants (n=84) completed a teleneuropsychology assessment including a short interview and battery of neuropsychological tests assessing attention (BTA, Digit Span Forward), processing speed (DKEFS Colour Naming & Word Reading, SDMT), language (FAS, Animals, NAB Naming), visuospatial abilities (JLO, RCFT Copy), verbal and visual memory (HVLT-R, NAB Shape Learning, RCFT), and executive function (DKEFS Color-Word Interference & Switching, Digit Span Backward & Sequencing, BRIEF), and including multiple measures of cognitive effort/assessment validity (RFIT, RDS), and a self-report measure of symptom validity (SIMS). T-tests were used to examine demographic and health variables between COVID-19 and control groups. MANCOVA were used to examine group differences across each cognitive domain assessed, and across cognitive effort and symptom validity tasks, while controlling for English language status.
Results: Group comparisons indicated that the COVID-19 group was slightly older (mean age = 40 vs. 34 yrs.; t=-2.101, p=0.04). Those who had COVID-19 reported more difficulties completing IADLs (t=2.204; p=0.03), more depressive symptoms (t=-2.299; p=0.02), and more subjective cognitive difficulties (t=-3.886; p<0.01). Examination of cognitive performance indicated a main effect of prior infection on executive function, controlling for language status (Wilks' Λ=0.817, F(6,73)=2.733, p=0.02). Specifically, having COVID-19 was associated with worse DKEFS Colour-Word Switching performance (p=0.01) and slightly higher self-reported difficulties on the BRIEF MI (p=0.04). No other significant group differences were seen across cognitive domains. There was also a main effect of COVID-19 infection on effort and symptom validity task performance (Wilks' Λ=0.705, F(10,70)=2.923, p<0.01). Specifically, prior infection was associated with higher SIMS Neurologic Impairment (p<0.01) and Amnestic Disorders (p<0.01) subscale scores, and paradoxically, slightly higher RFIT combined scores (p=0.02).
Conclusions: Interestingly, results indicate a significant role for subjective cognitive complaints and potential exaggeration of cognitive symptoms post-COVID-19 infection, in the absence of differences in objective performance in most cognitive domains. While subtle differences are seen on some executive function measures, mean group differences are small, and in the context of higher SIMS subscale scores, may not be readily interpretable. Studies employing similarly comprehensive neuropsychological assessments including validity measures in larger samples are needed to further disambiguate potential objective cognitive performance decrements from subjectively experienced difficulties.

Categories: Infectious Disease (HIV/COVID/Hepatitis/Viruses)
Keyword 1: neuropsychological assessment
Keyword 2: cognitive functioning
Keyword 3: validity (performance or symptom)
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3 Two Dominant Post-COVID Subtypes in Patients Seeking Treatment for "Brain Fog" Through a Post-COVID Treatment Clinic

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Objective: To examine patterns of cognitive function among a clinical sample of patients

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