outcome. Age and sex (Male/Female) were controlled for in the model.
Results: Age and sex were not significantly related to verbal fluency scores in our sample. After controlling for these demographics, the overall model including SF-20 subscales did not significantly predict fluency performance ($F(8, 28) = 1.04$, $p = .433$). However, Pain scores did individually predict verbal fluency performance ($B = 5.60$, $t = 2.53$, $p = <.05$). Unexpectedly, pain ratings were positively associated with fluency scores, such that each increase in pain rating (e.g., “none” to “mild”) was associated with a fluency score increase of 5.60 points (i.e., 5.6 more words stated across administered tasks).
Conclusions: These preliminary findings suggest that participants’ self-reported pain severity was positively associated with verbal fluency task performance in our sample (i.e., greater pain severity predicting better fluency). These findings are contrary to substantial evidence showing the deleterious effects of pain on cognitive functions in other populations (Khera & Rangasamy, 2021). It is possible that findings may be explained by a potential unknown intervening variable not included in our model. This is the first study to our knowledge to examine associations between experienced pain and verbal fluency performance post-COVID-19 infection. It will be important for future work to not only utilize more robust measures of pain experiences and explore more areas of cognition and language, but also to employ larger samples and examine a broader set of covariates.

Categories: Infectious Disease (HIV/COVID/Hepatitis/Viruses)
Keyword 1: fluency
Keyword 2: everyday functioning
Keyword 3: infectious disease
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51 Trajectories and Predictors of Cognitive Change Following COVID-19

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Objective: Acute cognitive complications following COVID-19 infection have been appreciated in a subset of patients since the early months of the global pandemic. Emerging data reveal that some patients go on to experience cognitive improvement, whereas others may experience further cognitive decline. We aimed to assess trajectories and predictors of cognitive change in a sample of post-COVID-19 patients.
Participants and Methods: This prospective cohort study assessed longitudinal cognitive change in adults receiving care for COVID-19 in the Johns Hopkins Post-Acute COVID-19 Team (JH PACT) clinic. Participants self-administered the Digital Automated Neurobehavioral Assessment (DANA) battery of seven cognitive tests and a performance-based measure of cognitive fatigue on up to six occasions over six weeks. Improvement or decline between the first and last assessment was defined as change of ≥1 standard deviation of the baseline mean of each outcome. Potential predictors of change included demographic features (age, sex, race/ethnicity, education), COVID-19 illness characteristics (hospitalization or ICU stay, months since symptom onset), and comorbid disease burden. Analyses included measures of central tendency, independent samples t-tests, and chi-square tests of independence.
Results: Of the 36 enrolled participants, 29 (81%) completed at least one DANA assessment ($M = 4.7$ assessments, $SD = 1.8$). Those completing at least three assessments ($n = 24$, 66.7%) were included in the present analyses (71% female; 58% white; M age = 54 years, $SD = 10.9$; M education = 14.6 years, $SD = 2.4$; M months since COVID-19 symptom onset at recruitment = 9.8, $SD = 4.7$; M comorbidities = 2.8, $SD = 2.0$). Fatigue was the most frequently improved outcome measure, with 41.7% of participants scoring >1 standard deviation above the baseline mean fatigue score at their final assessment. Among cognitive outcomes, the greatest frequency of improvement was observed on tests assessing rapid spatial processing (37.5%), processing speed (33.3%), and memory (33.3%). There

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were no consistent predictors of improvement, but several subtest-specific findings emerged. Specifically, (a) more comorbidities were positively associated with rate of fatigue reduction (p = .04), (b) longer duration since COVID-19 illness was positively associated with rates of memory improvement (p = .02), (c) older age, male sex, and more comorbidities were positively associated with rate of improvement in reaction time (ps < .05), and (d) more assessments completed was positively associated with rates of improvements in working memory (ps < .05). Response inhibition (12.5%), simple reaction times (16.7%), and working memory (16.7%) showed the lowest rates of improvement over time. Declines in cognition were infrequent, with 4.2 – 8.3% (n = 1 to 2) declining on measures of procedural reaction time, spatial processing, inhibitory control, or working memory.
Conclusions: At an average of >9 months following acute COVID-19 illness, we observed longitudinal improvements in cognitive fatigue as well as processing speed, memory, and spatial reasoning. Consistent predictors of recovery were not identified, although age, sex, comorbid conditions, and time since illness predicted rates of improvement in select domains. Further analyses with a larger sample size and more stringent analyses are needed to confirm and extend these findings.

Categories: Infectious Disease (HIV/COVID/Hepatitis/Viruses)
Keyword 1: infectious disease
Keyword 2: computerized neuropsychological testing
Keyword 3: cognitive functioning
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52 Depressive Symptoms and Subjective Cognitive Decline in Individuals with COVID-19

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Objective: Many individuals with COVID-19 develop mild to moderate physical symptoms that can last days to months. In addition to physical symptoms, individuals with COVID-19 have reported depressive symptoms and cognitive decline, posing a long-term threat to mental health and functional outcomes. Few studies have examined the presence of co-occurring depression and subjective cognitive decline in individuals who tested positive for COVID-19. The current study examined whether having COVID-19 is subsequently associated with greater depressive symptoms and subjective cognitive decline when compared to healthy individuals. Our study also examined differential associations between symptoms of depression and subjective cognitive decline between individuals who have and have never had COVID-19.
Participants and Methods: Adults (N = 104; mean age = 37 years, 69% female) were recruited online from Ontario and British Columbia, Canada. Participants were categorized into two groups: (1) persons who tested positive for COVID-19 at least three months prior, had been symptomatic, and had not been ventilated (N = 50); and (2) persons who have never been suspected of having COVID-19 (N = 54). The Center for Epidemiological Studies Depression Scale (CES-D) and the Subjective Cognitive Decline Questionnaire (SCD-Q) were administered to both groups as part of a larger clinical neuropsychological evaluation.

Two separate linear regression analyses were conducted to examine the association of COVID-19 with depressive symptoms and subjective cognitive decline. A moderation analysis was performed to examine whether depressive symptoms were associated with subjective cognitive decline and the extent to which this differed by group (COVID-19 and controls). Participants' age, self-reported sex, and history of depression were included as covariates.
Results: The first regression model explained 17.2% of the variance in CES-D scores. It was found that the COVID-19 group had significantly higher CES-D scores (β = .20, p = .03). The second regression model explained 35.9% of the variance in SCD-Q scores. Similar to the previous model, it was found that the COVID-19 group had significantly higher SCD-Q scores compared to healthy controls (β = .22 p = .01). Lastly, the moderation model indicated that

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