

COVID-19 leads to cognitive and behavioral problems in patients

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COVID-19 patients suffer from cognitive and behavioral problems two months after being discharged from hospital, a new study presented at the 7th Congress of the European Academy of Neurology (EAN) has found.

Issues with memory, spatial awareness and [information processing](#) problems were identified as possible overhangs from the virus in post-COVID-19 patients who were followed up within eight weeks.

The research also found that 1 in 5 patients reported post-traumatic stress disorder (PTSD), with 16% presenting [depressive symptoms](#).

The study, conducted in Italy, involved testing neurocognitive abilities and taking MRI brain scans of patients two months after experiencing COVID-19 symptoms. More than 50% of patients experienced cognitive disturbances; 16% had problems with executive function (governing working memory, flexible thinking, and information processing), 6% experienced visuospatial problems (difficulties judging depth and seeing

contrast), 6% had impaired memory, and 25% manifested a combination of all these symptoms.

Cognitive and psychopathological problems were much worse in [younger people](#), with the majority of patients aged under 50 demonstrating issues with [executive functions](#).

In the whole sample, the greater severity of COVID-19 acute respiratory symptoms during hospital admission was associated with low executive function performance.

Additionally, a longitudinal observation of the same cohort at 10 months from COVID-19, showed a reduction of cognitive disturbances from 53 to 36%, but a persisting presence of PTSD and depressive symptoms.

Lead author of the study, Prof. Massimo Filippi, from the Scientific Institute and University Vita-Salute San Raffaele, Milan, Italy, explained, "Our study has confirmed significant cognitive and behavioral problems are associated with COVID-19 and persist several months after remission of the disease."

"A particularly alarming finding is the changes to executive function we found, which can make it difficult for people to concentrate, plan, think flexibly and remember things. These symptoms affected three in four younger patients who were of a working age."

No [significant relationship](#) was observed between cognitive performance and brain volume within the study.

"Larger studies and longer-term follow up are both needed, but this study suggests that COVID-19 is associated with significant cognitive and psychopathological problems," concluded Dr. Canu, Researcher at the San Raffaele Hospital of Milan and first author of the study. "Appropriate follow-up

and treatments are crucial to ensure these previously hospitalized patients are given adequate support to help to alleviate these symptoms."

More information: Cognitive and behavioral features of a cohort of patients in COVID-19 post-acute phase. Presented at the 7th EAN Congress 2021.

Provided by European Academy of Neurology

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