

Immediate and long-term cognitive improvement after cognitive versus emotion management psychoeducation programs: a randomised trial in covid patients with neuropsychological difficulties

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INTRODUCTION

Cognitive impairments following infection by covid-19 is reported, even in the milder forms of the disease. In addition to subjective complaints, objective difficulties are observed in the domains of attention, executive functions [EF], working memory [WM] and long-term memory [LTM] ^[1], whose origin is probably multifactorial :

- indirect effect on the CNS (cytokine storm, cardiovascular damage or hypoxia) ^[3]
- direct effect on the CNS (entry via the olfactory bulb, hypometabolism of the connected regions) ^[1]
- accentuation of slight cognitive difficulties by psychological factors and fatigue ^[2]

Psychoeducational interventions have a positive effect on the management of cognitive difficulties. ^[4]

OBJECTIF

To assess the effectiveness of two psycho-educational interventions targeting respectively **cognitive vs. emotion management** on cognitive complaints and difficulties in **patients with long-covid**.

METHODOLOGY

- **BLIND EVALUATION** : A **neuropsychological** battery including tasks assessing LTM, WM, Attention and EF, as well as questionnaires (cognitive complaints, fatigue, sleep, quality of live) is performed :
 - **before** the intervention
 - **at 2 months and 8 months post-intervention**
- **RANDOMISATION**: Attribution to the intervention arm using a **minimisation allocation procedure**



2 INTERVENTIONS

COGNITIVE

Metacognition to teach appropriate behaviours and strategies preventing the impact of cognitive difficulties on daily living activities.

4 modules:

- Fatigue and sleep
- Working memory
- Executive functions and attention
- Long term memory

EMOTION MANAGEMENT

Targets **regulation of emotion and behaviour** that may aggravate the perception of difficulties.

4 modules+ relaxation :

- Recognition of difficulties and emotions
- Tolerating the uncertainty and dealing with concern
- Acceptance and communication of emotions
- Re-connection to the self and reactivation

Both interventions last one month with **four sessions of 1h30** in clinical setting, as well as at home exercises.

The pre-intervention assessments of the first patients started mid-march.

INCLUSION CRITERIA

18-70 years, at least **3 months** after positive PCR for covid-19 and presence of **cognitive complaints** and **difficulties**.

STATISTICAL PLAN

Mixed models will be performed to test the short and long term effect of the interventions on objectives and subjectives measures.



More info about the trial

Protocol submitted at clinicaltrials.gov : NCT05167266

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