

# COVID-19: Mental Health and Cognitive Health

Journal of Psychology and Neuroscience

Letter to the Editor

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Dear Editor,

Since the end of December 2019, the Chinese city of Wuhan has registered a new type of pneumonia caused by COVID-19, which has spread to all Chinese provinces and eventually the rest of the world. On January 30, 2020, the World Health Organization (WHO), called its members for an emergency meeting and declared that there was a global outbreak of COVID-19, which demanded immediate public policies of an international scope. In this context, according to the theory of the Behavioral Immune System, people tend to develop negative emotions (aversion, anxiety, and depression, etc.) due to the occurrence, as well as, negative cognitive evaluation for their self-protection. When threatened by potential diseases, people tend, in general, to develop “escape behavior”, noted by their avoidance of symptomatic third parties as well as strictly obeying social norms of conformity.

In order to explore the impacts of COVID-19 on people’s mental health, several studies were quickly published focusing especially on various emotional indicators of people, such as anxiety, depression, insomnia, stress, specific phobias and even some indicators of happiness (see, for example, Li et al. *Int. J. Environ. Res. Public Health* 2020: 17, 2032; Lai et al. *JAMA Network Open* 2020: 3 (3), 976; Wang et al. *Psychology, Health & Medicine*, 2020: 1746817; Qiu et al. *General Psychiatry* 2020: 33: e100213). For this, scales and questionnaires were applied, particularly online, aimed not only at the confined population, as well as the varied health workers. In view of the high scores on the indicators of negative emotions, the researchers categorically suggested that preventive interventions should be immediately administered to more vulnerable groups including both young and elderly individuals, with special attention being given to health professionals directly engaged in the diagnosis, treatment and care of patients with COVID-19.

Despite the amazing speed in which these studies were put together and published, we observed that none of them were concerned with the cognitive health of a significant portion of the population. We understand that cognitive health is also a public health concern from many perspectives. Individuals are, in general, deeply concerned about declines in their memory, decision-making skills, speed of information processing, problem solving. Cognition, in a broad sense, refers to the mental functions involved in attention, thinking, learning, remembering, executive functions. It is a fundamental aspect of the individual’s ability to engage in daily activities, achieve goals and successfully negotiate the world.

In cognitive medicine, or cognitive health (borrowing the name from Wallin et al, *BMC Psychiatry* , 2018:18:42), measurements of cognitive functions can be assessed objectively using standardized neuropsychological tests. In turn, subjective assessments can include standardized estimates of cognitive problems experienced in daily life, or they can be recorded directly by participants (in this case, population, health professionals or cured patients), caregivers or an intimate relative. Therefore, we are concerned that none of the studies published so far has examined cognitive indicators, whether objective or subjective, of the general populace, as well as healthcare workers and patients.