

Key Points

- Chronic symptoms following COVID-19 infection may be common and often include low mood and heightened anxiety.
- A bi-directional relationship between mental and somatic symptoms may complicate recovery; a holistic approach is needed to support patients with long COVID.
- The majority of long-COVID patients with mental health symptoms do not meet DSM5 criteria for a psychiatric disorder, but patients should still be supported in managing these symptoms to facilitate recovery.
- For patients who had COVID-19, assess & manage new or recurrent psychiatric disorders per normal guidelines. The ongoing support of family and friends is essential for people living with long COVID as they face daily challenges.

Many patients with prolonged recovery or with symptoms that persist for weeks following the acute period of COVID-19 (long COVID) report low mood and heightened anxiety. In the 14 to 90 days after contracting COVID-19, one study found that nearly 6% of individuals will be newly diagnosed with a psychiatric condition, while 12% may have worsening of a pre-existing psychiatric condition (Taquet 2020 Lancet).

The most common psychiatric conditions that emerge in this period are mood and anxiety disorders while no such association has been found for psychotic disorders. A pathophysiologic relationship has not been identified for these findings, and socioeconomic factors may also play an important role. In our experience at the Post-COVID Recovery Clinics, most long-COVID patients do not meet the diagnostic criteria of a DSM5 disorder, but would still benefit from supportive care and guidance on managing psychiatric symptoms.

There is a strong bi-directional relationship between mental and physical symptoms that may be particularly relevant to long-COVID patients. Mental health symptoms may be perpetuated by other chronic symptoms of long COVID, including fatigue, shortness of breath, joint pain and chest pain. The rates of these symptoms range from 20-70% at 1-2

months after symptom onset (Carfi et al. JAMA, Carvalho-Schneider et al. Clin Microbiol Infect, Mandal et al. Thorax), and may even persist for as long as 6 months (Huang et al. Lancet). These symptoms are more common in those who had more acute COVID-19 syndromes (Greenhalgh et al. BMJ, Huang et al. Lancet).

Findings of protracted recovery after SARS with similar symptomatology has prompted research into the possible relationship between coronavirus infection and myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS) as well as fibromyalgia, though this relationship is currently not well understood. While this continues to be studied, we encourage a holistic approach wherein long-COVID patients are supported with respect to both their physical and mental health.

Recommendations for long-COVID patients with signs or symptoms of poor mental health

Assessment

- Screen for mood disorders, anxiety disorders, substance use disorders, and PTSD
- Screen for ideation of homicide, self-harm, or suicide.

Management

- As best as possible, address other common physical symptoms of long COVID that may contribute to mental health symptoms. Recommend pacing strategies (similar to those suggested for ME/CFS or post-concussion) as appropriate.
- If not meeting DSM5 criteria, offer reassurance and consider recommending nonpharmacological management such as meditation, exercise, referral to psychotherapy, and digital patient resources (see suggestions below).
- If meeting DSM5 criteria, manage per regular guidelines (including pharmacologic & non-pharmacologic treatments). Note that adjustment disorder may not be an appropriate diagnosis if symptoms persist for more than 6 months after the stressor has terminated.



Web Resources

- Anxiety Canada - COVID-19: www.anxietycanada.com/covid-19
- Here to Help - COVID-19: www.heretohelp.bc.ca/infosheet/covid-19-and-anxiety
- Foundry (for youth aged 12 - 24): www.foundrybc.ca/covid19
- Calm - Videos for meditation & relaxation: www.youtube.com/c/calm



Mobile Apps

Free for iOS & Android devices:

- [Mindshift CBT](#) (Anxiety focus)
- [COVID Coach](#)
- [Woebot](#) (Chatbot)
- [Wysa](#) (Chatbot & optional paid chat therapist)
- [Breathr](#)
- [Mindfulness Coach](#)
- [Insomnia Coach](#)

Reference list

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Greenhalgh T, Knight M, A'Court C, Buxton M, Husain L. Management of post-acute covid-19 in primary care. *BMJ.* 2020;370. doi:10.1136/bmj.m3026

Huang C, Huang L, Wang Y, et al. 6-month consequences of COVID-19 in patients discharged from hospital: a cohort study. *Lancet.* 2021;0(0). doi:10.1016/S0140-6736(20)32656-8

Mandal S, Barnett J, Brill SE, et al. "Long-COVID": A cross-sectional study of persisting symptoms, biomarker and imaging abnormalities following hospitalisation for COVID-19. *Thorax.* 2020. doi:10.1136/thoraxjnl-2020-215818

Taqet M, Luciano S, Geddes JR, Harrison PJ. Bidirectional associations between COVID-19 and psychiatric disorder: retrospective cohort studies of 62 354 COVID-19 cases in the USA. *The Lancet Psychiatry.* 2020;0(0). doi:10.1016/S2215-0366(20)30462-4

MH Apps

Mindshift - Paul AM, Eubanks Fleming CJ. Anxiety Management on Campus: An Evaluation of a Mobile Health Intervention. *J Technol Behav Sci.* 2019;4(1):58-61. doi:10.1007/s41347-018-0074-2

Woebot - Fitzpatrick KK, Darcy A, Vierhile M. Delivering Cognitive Behavior Therapy to Young Adults With Symptoms of Depression and Anxiety Using a Fully Automated Conversational Agent (Woebot): A Randomized Controlled Trial. *JMIR Ment Heal.* 2017;4(2):e19. doi:10.2196/mental.7785

Wysa - Inkster B, Sarda S, Subramanian V. An Empathy-Driven, Conversational Artificial Intelligence Agent (Wysa) for Digital Mental Well-Being: Real-World Data Evaluation Mixed-Methods Study. *JMIR mHealth uHealth.* 2018;6(11):e12106. doi:10.2196/12106

