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Prevalence and factors associated with depression in patients with COVID-19



Dear Editor,

We read with enthusiasm the recent study by [Ma et al. \(2020\)](#) on the prevalence of depression and its association with quality of life in clinically stable patients with COVID-19. This cross-sectional study evaluated the prevalence of depression online using the Chinese version of the PHQ-9 scale and discussed the association between depression and quality of life in clinically stable patients with COVID-19 in five hospitals in Wuhan, China. The results showed that the prevalence of depression among patients with COVID-19 was as high as 43.1% (95%CI: 39.6%–46.6%). In addition, this study also found that depression was positively associated with having a family member infected with COVID-19 and suffering from severe COVID-19 infection, and negatively with male gender and frequent social media use.

This work reminds us that depression is highly prevalent in clinically stable patients with COVID-19 and highlights the urgency of regular screening and treatment of depression in this population. However, in terms of the study conclusion, we propose that there is room for further discussion.

First, the depression prevalence of 43.1% is extremely high. This is higher than that of patients admitted to hospital due to SARS or MERS during the acute illness (32.6%, 95%CI: 24.7%–40.9%), and post-illness stages (10.5%, 95%CI: 7.5%–14.1%) ([Rogers et al., 2020](#)). The potential reasons may involve the following points: first, as the authors described in the discussion ([Ma et al., 2020](#)), depression was assessed using a self-report scale with a few items, instead of a structured diagnostic instrument. This was for practical reasons. Second, compared with face-to-face interviews, patients and evaluators may be less able to effectively communicate in an online evaluation. This may have led patients to answer questions in a more arbitrary way. Finally, the subjects were invited to participate in this study, which was not mandatory. Patients with psychological distress may be more willing to participate than those without; this may have led to a certain selection bias.

Second, the COVID-19 epidemic has spread to most parts of the world. A large sample survey from Europe showed that only 36 of 1420 patients with mild to moderate COVID-19 suffered from depression. However, the study focus was not the psychological state of patients ([Lechien et al., 2020](#)). In addition, a small sample survey from Iran showed that among 82 patients interviewed via video, the most common mental disorders were insomnia (24 cases, 29.3%) and adjustment disorder (13 cases, 15.9%), with only three patients diagnosed with depression ([Zarghami et al., 2020](#)). Thus, the prevalence of depression in patients with COVID-19 may differ widely by country or region. Furthermore, the conclusion of [Ma et al. \(2020\)](#) seems to only explain the situation of patients with COVID-19 in Wuhan. Thus, the generalizability of their findings may be limited. In addition, we have noticed that

this online survey was completed earlier in 2020. With an increased in-depth public understanding of COVID-19, we have reasons to believe that the prevalence of depression may change with time.

Finally, at the end of their article ([Ma et al., 2020](#)), the authors mentioned that the relationship between social support and depression had not been measured. However, at almost the same time, [Kong et al. \(2020\)](#) conducted an online survey of the prevalence of depression and social support provided to COVID-19 patients, which included 144 patients in a hospital in Wuhan. They reported a 28.47% prevalence of depression and found that lower levels of social support were significantly related to the prevalence of depressive symptoms. Accordingly, the authors called for more psychological care and social support for patients with COVID-19, including physical and psychological help provided by family members, friends, medical personnel, and relevant institutions. Because of the closed hospital environment, many patients often feel helpless and lonely. As the closest people to these patients, medical staff can have a large impact on patient wellbeing. In clinical practice, Chinese medical professionals often use various psychological support methods to help patients rebuild confidence. In some temporary hospitals in Wuhan, patients with mild symptoms practiced Tai Chi, writing, painting, and even dancing, guided by medical staff.

In summary, we appreciate the research of [Ma et al. \(2020\)](#), and we also call for regular screening and proper psychological interventions for psychological problems in patients with COVID-19. However, the prevalence of depression in patients with COVID-19 may differ widely by country or region, and these research limitations should be addressed in future studies. In addition, if possible, reasonable and effective methods for treating depression should be developed according to the characteristics of patients with COVID-19 in different countries or regions. This is particularly important given the globalization of COVID-19.

Declaration of Competing Interest

We claim that none of the material in the paper has been published or is under consideration for publication elsewhere and all authors state no conflicts of interest.

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