

Insomnia after COVID-19 infection: a cross-section study among non-hospitalized COVID-19 survivors

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Background: Long COVID-19, a condition in which symptoms persist after recovery, is associated with insomnia. However, existing evidence on insomnia pertains only to hospitalized COVID-19 patients. COVID-19 infection can also have a detrimental impact on mental health. This study aimed to evaluate the prevalence of insomnia and investigate its association with depression and stress in non-hospitalized COVID-19 recovered individuals.

Methods: This cross-sectional online survey involved 1,056 Vietnamese participants who had tested positive for SARS-CoV-2 and recovered within the preceding six months, and did not require hospitalization due to COVID-19 symptoms during infection. We used Insomnia Severity Index and Depression, Anxiety, and Stress Scale-14 to measure insomnia severity, depression, and stress score, respectively. Multivariable logistic regression was used to examine the associations between depressive and anxiety score, and participants' insomnia level.

Results: The prevalence of insomnia among non-hospitalized COVID-19 survivors was 76.1%, and among those, 22.8% of participants scored for severe level of insomnia. One third of participants reported worse sleep quality, duration, and ability to initiate sleep, half reported more awaken nights after COVID-19 infection. Participants with higher depressive symptoms score (OR 3.45; 95%CI 1.87 – 6.34) or higher anxiety symptoms score (OR 3.93; 2.52 – 6.13) had significance higher odds of developing insomnia. Other risk factors of insomnia included pre-existing chronic conditions and higher education level, while COVID-19 symptoms and duration were not significantly associated.

Conclusion: This study highlights the substantial burden of insomnia among non-hospitalized COVID-19 survivors and the significant association of depression and anxiety on the development of this long-term effect of COVID-19 infection. These findings underscore the need for comprehensive interventions that address both psychological and sleeping health of COVID-19 patients after infection. The results of this study could be used to inform the design and implementation of interventions to improve the long-term outcomes of COVID-19 survivors.

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