Shedding light on the work burden of long COVID

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After an infection with SARS-CoV-2, some patients struggle for months with persistent symptoms, such as fatigue, breathlessness, or concentration problems.[1] Although the pathophysiology of these symptoms remains poorly understood, they likely result from a combination of biological and psychosocial factors.[2–4] These symptoms may be permanent but typically fluctuate and tend to worsen after physical or mental exertion, thus impairing individuals' ability to take part in work and social life. It is thus crucial to recognize and assess the occupational impact of this condition, commonly known as 'long COVID'. Earlier estimations suggested that 11%–52% of working individuals with long COVID may not return to work 6–12 months after the infection. These alarming figures, however, mostly derived from highly selected samples, while well-conducted population-based studies are scarce.

In this issue of *The Lancet Regional Health—Europe*, Kerksieck and colleagues addressed this question using data from a longitudinal cohort of a random sample of all individuals infected with wild type SARS-CoV-2 between August 2020 and January 2021 in the Canton of Zurich, Switzerland.[5] After a 12-month follow-up, participants reported perceived work ability with a validated instrument, as well as occupational changes due to the infection. At the same time, they reported whether they had in the past week at least one persistent symptom (out of a list of 23) that they deemed related to COVID-19, as well as whether they thought they had fully recovered from COVID-19. Those who reported persistent symptoms at 12 months (i.e., 18%) had lower perceived work ability score than those who did not, and 5.8% of them reported occupational changes due to COVID-19, including 1.6% who completely dropped out of the workforce. Similar findings were observed for those who declared not having fully recovered from COVID-19, with evidence of a dose-response relationship between quality-of-life impairment and reduced perceived ability to work. Higher age and history of psychiatric diagnosis were associated with more substantial reductions in current work ability.

Overall, the good news is that the proportion of individuals with long COVID who experience enduring impaired work ability may be substantially lower than suggested in earlier studies. The bad news is that, given the high proportion of infected individuals worldwide, this represents a huge burden.

This study is remarkable in many respects, whether it be the sampling strategy, the population-based design, or the large sample size. Of note, participants were carefully screened for pre-infection conditions. This screening included psychiatric diagnoses, which are not only complications but also risk factors of post-COVID-19 condition[4] and moderated its impact on work ability. From an etiological perspective, however, the reader might miss a group control of non-infected individuals. Since symptoms emerging after a SARS-CoV-2 infection may also occur in non-infected individuals,[6,7] it is challenging to determine whether the reported symptoms and resulting occupational changes can be attributed specifically to COVID-19 rather than other potential causes. Likewise, considering symptoms that may have occurred more than three months after the infection or whose attribution to COVID-19 was not certified by a physician go beyond the definition of the 'Post-COVID-19 condition' by the World Health Organization.[8]

Whether relying on self-report in clinical epidemiology is a caveat or a strength is a never-ending matter of debate. The risk of recall bias or misclassification may warrant additional validation methods. For instance, Kerksieck and colleagues conducted phone interviews whenever the relation between COVID-19 and occupational changes was equivocal. Self-report, however, not only allows for a larger sample size, but also provides valuable insights into the patient's perspective. In addition, relying on perceived work ability may make the results less dependent upon contextual features, thus increasing their generalizability. Furthermore, as perceived work ability predicts occupational performance, it may capture both absenteeism and presenteeism. Presenteeism (i.e., working while sick) has indeed been overlooked in previous studies despite being often reported by workers with long COVID. That said, although not uncommon in medicine, a poor correlation between symptoms and subjective suffering on the one hand, and signs and objective test results on the other hand is particularly frequent in long COVID.[2,9] Therefore,

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perceived work ability may poorly correlate with actual ability, so that low perceived work ability may expose affected individuals to excessive worry about their occupational performance. This may foster avoidance behaviours regarding workplace, especially among those who are highly committed to their work. Avoidance behaviours may lead to physical and cognitive deconditioning that could in turn maintain or even worsen the condition. Thus, it is crucial to approach the communication of these results with caution. While acknowledging the significant impact of long COVID on affected individuals, it is important not to portray this impact as immutable, as there are resources available to mitigate its consequences and help patients to recover from long COVID and return to work.[10]

Contributors

CL wrote the first draft and VP revised it critically for important intellectual content. Both approved the final version.

Declaration of interests

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