

AB010. Associations between non-communicable diseases and coronavirus disease 2019 related experience, behaviours, and mental health: a global study

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Background: Previous studies have shown that patients with non-communicable diseases (NCDs) had a higher risk of coronavirus disease 2019 (COVID-19). This study aimed to evaluate the associated factors and global impact of the presence of NCDs on COVID-19 related experience, behaviours, and mental health outcomes.

Methods: We conducted a global survey involving 26 countries by an online, self-administered questionnaire (October 2020–December 2021). Data on sociodemographic variables, socioeconomic status, and clinical information were collected among adults aged ≥ 18 years. We examined factors associated with the presence of NCDs and evaluated whether they were correlated with COVID-19 related experience, behaviours, and mental health outcomes by binary logistic regression.

Results: We collected a total of 2,576 surveys, of which 729 participants (28.3%) had existing NCDs. Participants with NCDs were more likely to suffer from COVID-19 symptoms [adjusted odds ratio (aOR) = 3.71, 95% confidence interval (CI): 2.65–5.18], infections (aOR = 1.81, 95% CI: 1.31–2.50); consume more alcohol (aOR = 1.84, 95% CI: 1.35–2.52), smoke more cigarettes (aOR = 2.98, 95% CI: 2.04–4.36); postpone COVID-19 vaccination schedule (aOR = 1.82, 95% CI: 1.37–2.41); feel highly stressful (aOR = 1.45, 95% CI: 1.18–1.77); and perceive higher likelihood of death from the COVID-19 (aOR = 1.80, 95% CI: 1.43–2.26).

Conclusions: The presence of NCDs was associated with a higher risk of unhealthy behaviours and poorer mental health outcomes during the COVID-19 pandemic. Further research should evaluate different interventions for improving COVID-19 experiences, behaviours and mental health outcomes among various vulnerable individuals with NCDs.

Keywords: Coronavirus disease 2019 pandemic (COVID-19

pandemic); non-communicable diseases (NCDs); experience, behaviours; mental health

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Footnote

Conflicts of Interest: All authors have completed the ICMJE uniform disclosure form (available at <https://jphe.amegroups.com/article/view/10.21037/jphe-2023-apru-ab010/coif>). M.W. serves as the Editor-in-Chief of *Journal of Public Health and Emergency* from July 2023 to June 2025. The other authors have no conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. The study was conducted in accordance with the Declaration of Helsinki

(as revised in 2013). This study was approved by the Survey and Behavioural Research Ethics Committee, The Chinese University of Hong Kong (No. SBRE-20-035) and informed consent was obtained from all individual participants.

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