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## Relationship between depression and the impacts of the responses to the COVID-19 pandemic in Australia

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### ABSTRACT:

The COVID-19 pandemic is a strong universal stressor with no recent precedents. To date, Australia has reported few COVID-19 cases and deaths compared to other countries. However, measures to control the pandemic (e.g. social distancing, border closures, lockdowns) are impacting mental health and this impact might be more pronounced in those with a history of or predisposition to mental health disorders. We have collected survey data in two large genotyped cohorts: the QSkin Sun and Health Study (QSkin, a population-based sample of residents in the state of Queensland) and the Australian Genetics of Depression Study (AGDS, a national clinical sample with history of major depressive disorder). The first survey was conducted in mid-2020 and focused on the impact of the COVID-19 pandemic on mental health. A follow-up survey will be launched in late April 2021. Preliminary results show that symptoms of depression and anxiety significantly worsened after the start of the pandemic. This was true both for individuals with and without a history of depression. We selected the top and bottom decile of polygenic risks scores for depression from a subset of AGDS participants (N ~ 300 per group). Those with the lowest genetic risk for depression reported being significantly happier and less fidgety/restless in the 3 months prior to the pandemic than those with the highest risk. However, in mid-2020 both groups reported being more sad and fidgety and there were no statistical differences between them. We will expand these results and add new information collected in the 2021 survey.

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