Depression, anxiety and resilience during COVID-19 in Dutch patients with Cystic Fibrosis or Primary Ciliary Dyskinesia and their caregivers

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## Abstract

Background. The COVID-19 pandemic has spread across the world, leading to government measures associated with a negative impact on mental health. The aim of this study was to evaluate the impact of COVID-19 on depression, anxiety and resilience in Dutch people with cystic fibrosis (PwCF) or primary ciliary dyskinesia (PwPCD) and their caregivers during the pandemic. Methods. Adolescents (12-17 years), adults and caregivers of children (0-17 years) with CF or PCD completed questionnaires on depression (PHQ-9), anxiety (GAD-7) and resilience (BRS) between September 2020 and February 2021. The psychosocial impact of COVID-19 was measured by the Exposure and Family Impact Survey (CEFIS) Part 2. Mixed model analyses compared PHQ-9 and GAD-7 results to participants' pre-pandemic scores. Results. 110 participants (10 PwCF, 31 PwPCD, 52 CF caregivers, 17 PCD caregivers) completed questionnaires during the pandemic. Pre-pandemic outcomes were available for 87 participants. The prevalence of symptoms of depression and anxiety (PHQ-9 or GAD-7 scores [?]5) in PwCF and PwPCD and their caregivers before and during the pandemic was high, with an increase in depression in PwCF (2.75; 95%-CI: 0.82 to 4.68) and increase in anxiety in CF caregivers (1.03; 0.09 to 1.96) during the pandemic. Resilience was within the normal range for all groups, CEFIS scores corresponded to a low to normal impact. Conclusion. PwCF and PwPCD and their caregivers were at high risk of increased depression and anxiety symptoms both before and during the pandemic, which emphasizes the importance of mental health screening and psychological care in CF and PCD.

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