

## The impact of the COVID-19 pandemic on neuropsychiatric symptoms and carer mental health

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**State of the art:** As a global health emergency, the rapid spread of COVID-19 led to the implementation of unprecedented restrictions (e.g., quarantine, lockdowns). While these restrictions reduced the viral spread of COVID-19, they may exacerbate behavioural and cognitive symptoms of dementia and increase pressure on caregiving. The few existing studies have been conducted in single-country cohorts or focused on Alzheimer's disease (AD), with the impact on people living with frontotemporal dementia (FTD) across the world, under-represented. Here, we aimed to assess the international impact of COVID-19 and related restrictions on carer mental health and neuropsychiatric symptoms in FTD and AD.

**Methodology:** In April 2020, we conducted a survey across centres in Australia, Germany, Spain, and the Netherlands. Two-hundred and eighty-seven carers of people with dementia (125 FTD, 120 AD, 42 other dementia syndromes) completed the survey.

**Results:** Carers reported a worsening of neuropsychiatric symptoms in people with dementia since the outbreak of COVID-19, including increased depression, apathy, delusions, anxiety, irritability, and agitation. Regression analyses revealed that limited understanding of COVID-19 ( $p=.001$ ) and not living with the carer (e.g., living in long-term care facilities) ( $p=.002$ ) predicted worsened neuropsychiatric symptoms. Carers also reported worsened mental health, increased stress and reduced social networks. Uncertainty about the future ( $p=.031$ ) and loneliness ( $p=.003$ ) were the greatest predictors of worsened carer mental health.

**Conclusion:** Findings from this study will inform strategies for the development of relevant support services and compassionate protocols that meet the evolving needs of people living with dementia and their carers.

### Conflicts of interest

The authors declare no competing interests, financial or otherwise.