

# Effect of COVID-19 on BPSD severity and caregiver distress: Trend data from national dementia-specific behavior support programs in Australia

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## Abstract

**Background:** Globally, Coronavirus disease 2019 (COVID-19) caused a significant disruption to the physical and mental well-being of all individuals, including those living with dementia. Social restrictions and lockdown measures due to COVID-19 have worsened the feelings of loneliness and behaviours and psychological symptoms of dementia (BPSD). National BPSD support programs in Australia are offered by Dementia Support Australia (DSA) through the Dementia Behavior Management Advisory Service (DBMAS) and the Severe Behavior Response Teams (SBRT). This study aims to investigate the impact of COVID-19 on BPSD severity and related caregiver distress among referrals to DSA programs.

**Methods:** A retrospective comparative analysis was conducted on the intake data of referrals to DSA between two periods: Pre-COVID-19 Period (January 2018-December 2019) and COVID-19 Period (January 2020-July 2021). Referrals were compared on demographic characteristics (e.g., age), and BPSD severity (i.e., neuropsychiatric symptoms such as agitation) and caregiver distress as measured by the Neuropsychiatric Inventory (NPI). NPI scores were compared on a month-to-month basis between the specified periods.

**Results:** Across the two periods, there were a total of 23,180 referrals eligible for the analysis. While no differences were noted in age, sex, or dementia subtype, there were elevated levels of NPI severity and caregiver distress scores during COVID-19 Period compared to the Pre-COVID-19 Period. The month-to-month trends of these differences (Figure 1, Figure 2) reflect the timing of outbreaks across Australia. Specifically, there were no significant differences at the start of 2020 prior to the declaration of the pandemic, with an initial rise in NPI severity and distress through April after initial measures were implemented nationally in March 2020. These levels of severity and distress continued to rise through the remainder of 2020, alongside outbreaks in specific regions within Australia, such as Victoria (June-October), and New South Wales (December/January). NPI severity and caregiver distress then began to return to Pre-COVID levels from February-May before elevating again with the outbreak of the Delta variant in Australia.

**Conclusions:** COVID-19 has a significant impact on the severity levels of BPSD and related caregiver distress.