

## 422 - Evaluating the Clinical Impact of National Dementia Behavior Support Programs on Neuropsychiatric Outcomes in Australia

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**Background:** People living with dementia (PLWD) in residential aged care homes (RACHs) are frequently prescribed psychotropic medications due to the high prevalence of neuropsychiatric symptoms, also known as behaviors and psychological symptoms of dementia (BPSD). However, the gold standard to support BPSD is using psychosocial/non-pharmacological therapies.

**Objective:** This study aims to describe and evaluate services and neuropsychiatric outcomes associated with the provision of psychosocial person-centered care interventions delivered by national multidisciplinary dementia-specific behavior support programs.

**Methods:** A 2-year retrospective pre-post study with a single-arm analysis was conducted on BPSD referrals received from Australian RACHs to the two Dementia Support Australia (DSA) programs, the Dementia Behavior Management Advisory Service (DBMAS) and the Severe Behavior Response Teams (SBRT). Neuropsychiatric outcomes were measured using the Neuropsychiatric Inventory (NPI) total scores and total distress scores. The questionnaire version "NPI-Q" was administered for DBMAS referrals whereas the nursing home version "NPI-NH" was administered for SBRT referrals. Linear mixed effects models were used for analysis, with time, baseline score, age, sex, and case length as predictors. Clinical significance was measured using Cohen's effect size ( $d$ ;  $\geq 0.3$ ), the mean change score (MCS; 3 points for the NPI-Q and 4 points for the NPI-NH) and the mean percent change (MPC;  $\geq 30\%$ ) in NPI parameters.

**Results:** A total of 5,914 referrals (55.9% female, age  $82.3 \pm 8.6$  y) from 1,996 RACHs were eligible for analysis. The most common types of dementia were Alzheimer's disease (37.4%) and vascular dementia (11.7%). The average case length in DSA programs was  $57.2 \pm 26.3$  days. The NPI scores were significantly reduced as a result of DSA programs, independent of covariates. There were significant reductions in total NPI scores as a result of the DBMAS (61.4%) and SBRT (74.3%) programs. For NPI distress scores, there were 66.5% and 69.1% reductions from baseline for the DBMAS and SBRT programs, respectively. All metrics ( $d$ , MCS, MPC) were above the threshold set for determining a clinically significant effect.

**Conclusions:** Multimodal psychosocial interventions delivered by DSA programs are clinically effective as demonstrated by positive referral outcomes, such as improved BPSD and related caregiver distress.

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