Recent data showed that sleep continuity and architecture (decreased total sleep time, slow-wave sleep, and REM sleep) are disturbed in AD patients.

Otherwise, sleep deprivation may be associated with decreased glymphatic system clearance, leading to accumulation of neurotoxic proteins, particularly A $\beta$  (and tau). It's also associated with proinflammatory states due to accumulation of reactive oxygen species, nucleotides and proteins during wakefulness, which leads to immune response that causes neuronal dysfunction and cellular death. Insomnia and sleep deprivation were also associated with activation of complement pathway and immunoglobulins secretion. Many studies suggest chronic sleep disruption changes blood—brain barrier structure and function leading to A $\beta$  accumulation.

**Conclusions:** There is emerging evidence that points sleep disturbances as both a potential marker for AD pathology and risk predictor of developing the disease. Future investigations should evaluate the relationship between specific sleep disorders and AD physiopathology.

## P163: Closing the gap: Funded psychology in residential aged care in Australia.

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**Objective:** Historically, older adults in residential aged care facilities (RACF) in Australia had no access to government funded psychology services despite high rates of anxiety and depression. Change Futures is a registered charity that provides funded psychology to more than 220 RACFs in south-east Queensland and northern New South Wales, Australia, and since 2015 has been providing free psychology services to older adults living in aged care, using a predominately provisional psychologist workforce. This presentation will discuss the model of service that is provided, and the findings of a recent outcomes report.

**Method:** Data was collected via clinician entered eHealth records in the 2021/2022 financial year from 01/07/2021 to 30/06/2022. Outcome measures were analysed using six repeated measure t-tests to compare clinical change from first and last assessments.

**Results:** A total of 2865 residents were seen in 17,754 individual sessions and 298 group sessions. Staff education was provided in 94 sessions with 838 participants, who worked in RACFs. The most common presenting issue was difficulties with adjustment (70%), comorbid anxiety and depression (28%), depression (27%), loneliness (18%), and anxiety (17%). Outcomes of the psychology program showed statistically significant improvements on all measures, including the Kessler 5 psychological distress scale, Geriatric anxiety scale, Patient health Questionaire-9, De Jong Gierveld Loneliness Scale, and Brief Adjustment Scale.

**Conclusion:** The described service model resulted in significant improvements to the psychological wellbeing of older adults, and represents an effective and sustainable training approach for provisional psychologists.