

Opposing Patterns of Psychiatric Conditions in Behavioral Variant Frontotemporal Dementia & Early Onset Alzheimer’s Disease

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BACKGROUND

Early onset dementias represent diagnostic challenges. Frontotemporal dementia (FTD) is second only to Alzheimer Disease (AD), among common causes of dementia in those with onset ≤ 65¹ (**Fig. 1**). Among FTD, behavioral variant FTD (bvFTD) is the most common subtype.² There is considerable phenotypic overlap between bvFTD and various psychiatric disorders. Additionally, up to 50% of patients with bvFTD have prior history of at least one primary psychiatric diagnosis.³ Despite this, the associations between psychiatric burden and bvFTD remain relatively understudied, especially compared to other dementias such as AD.

METHODS

We screened 334 bvFTD patients from the University of California San Francisco (UCSF) Memory and Aging Center (MAC) between 1998-2021 for the prevalence of psychiatric conditions (depression, anxiety, post-traumatic stress disorder, obsessive compulsive behaviors, hoarding, bipolar disorder, schizophrenia, and psychosis not otherwise specified) and compared the rates of psychiatric disease history to a group of 555 early onset AD (EOAD) participants also from the UCSF MAC between 1998-2016.

RESULTS

- bvFTD has significantly less DPN, ANX and significantly more BPD, HOARD, PSYCH, and OCS than EOAD (**Fig 3 & 4**).
- Both bvFTD and EOAD showed a greater prevalence of DPN, ANX compared to Gen Pop estimates ($p < 0.001$) while only the bvFTD had greater prevalence of SCZ, BPD, HOARD, PSYCH, and OCS compared to Gen Pop ($p < 0.001$) (**Fig 3**).
- In bvFTD the cumulative burden of psychiatric disorders is associated with younger age at onset (AAO) of bvFTD (**Fig 2**).

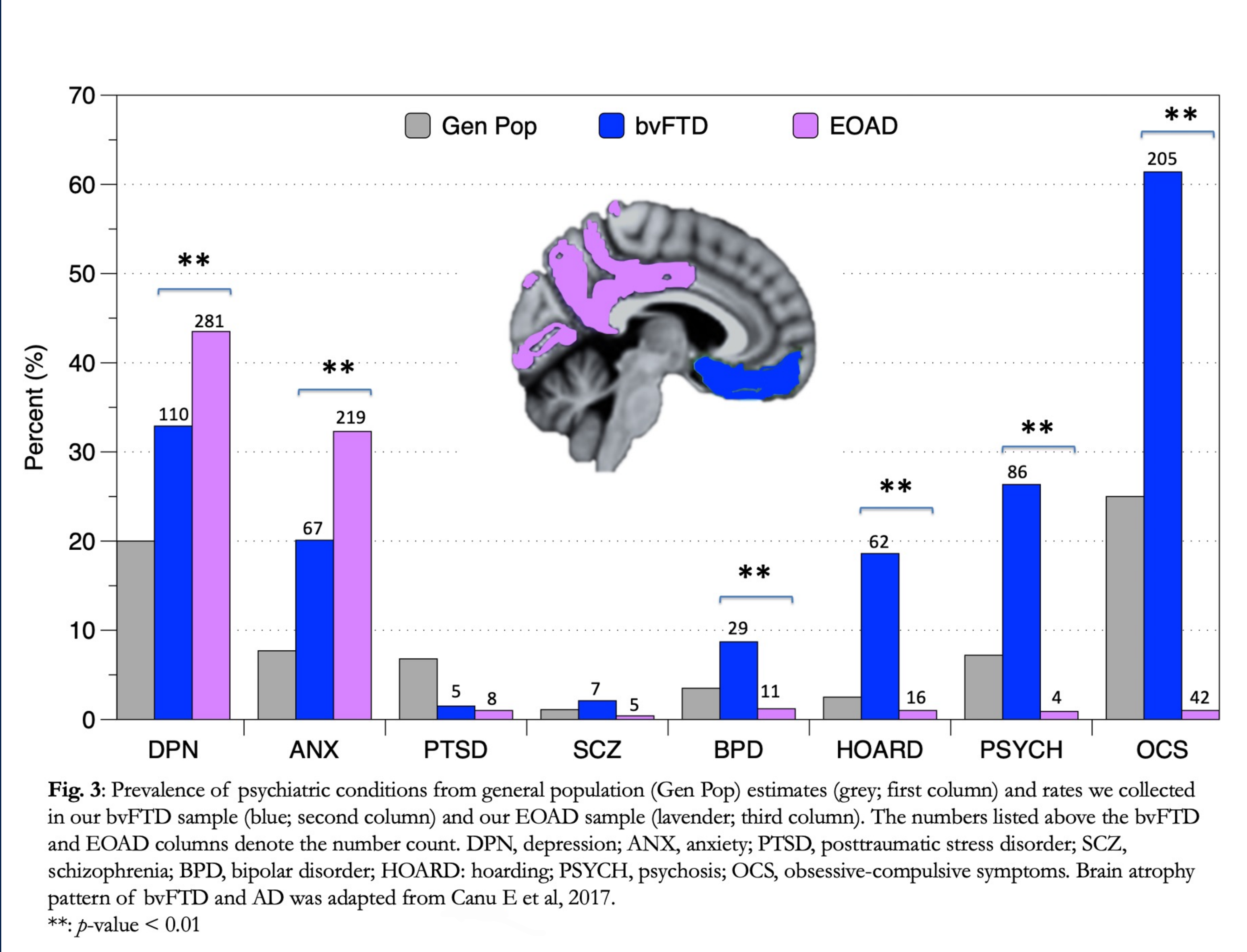
DISCUSSION

- The patterns of psychiatric conditions differ between bvFTD and EOAD. With this, psychiatric history might be helpful in differential diagnosis of neurodegenerative disease.
- Given the differences in in the underlying anatomical correlates of these dementia syndromes, bvFTD and EOAD might serve as models for studying psychiatric disorders.

ACKNOWLEDGEMENTS

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A divergent pattern of psychiatric disorders presents between frontotemporal dementia and Alzheimer’s disease.



** p -value < 0.01



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Neurodegenerative Disorders ≤Age 65

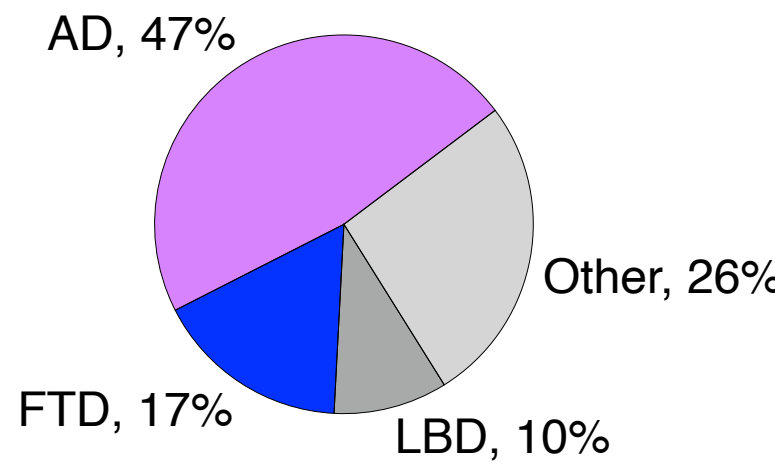


Fig. 1: Common causes of early onset (<65) neurodegenerative disease. Lewy-body dementia; Other. Adapted from Harvey RJ et al, 2003.

bvFTD AAO by Psychiatric Burden

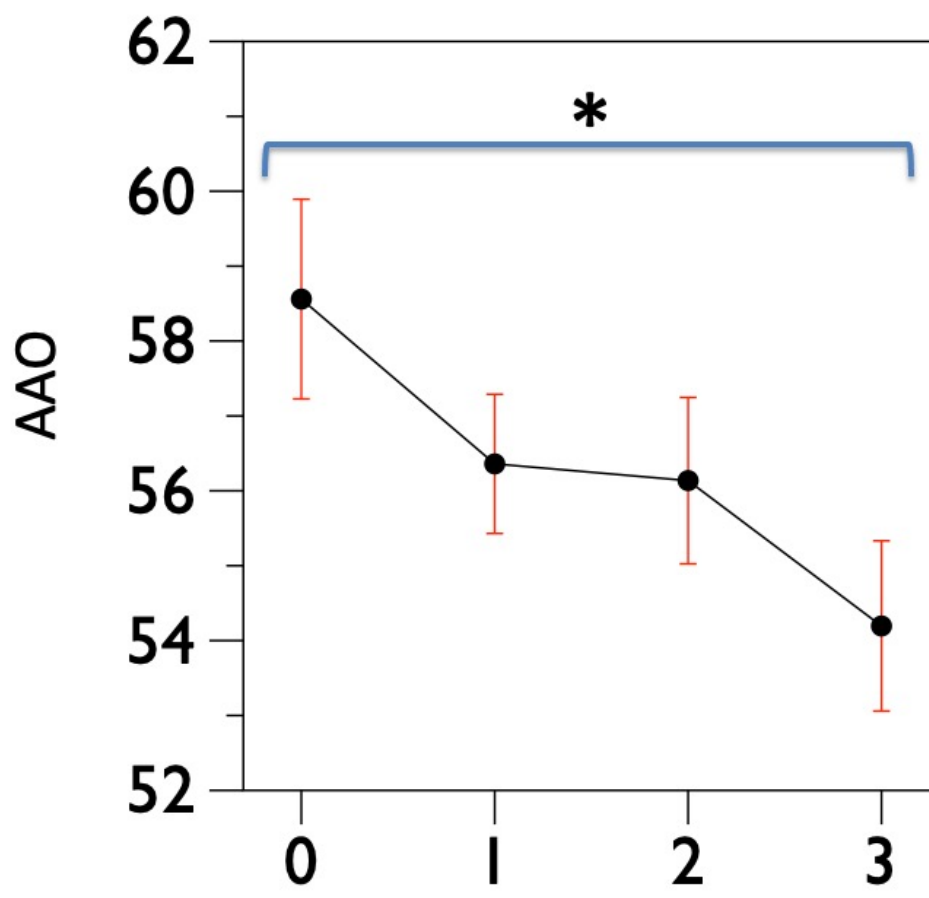


Fig. 2 Mean AAO of bvFTD as a function of cumulative psychiatric load. *: p -value < 0.05

Odds Ratio Psychiatric Conditions in bvFTD vs EOAD

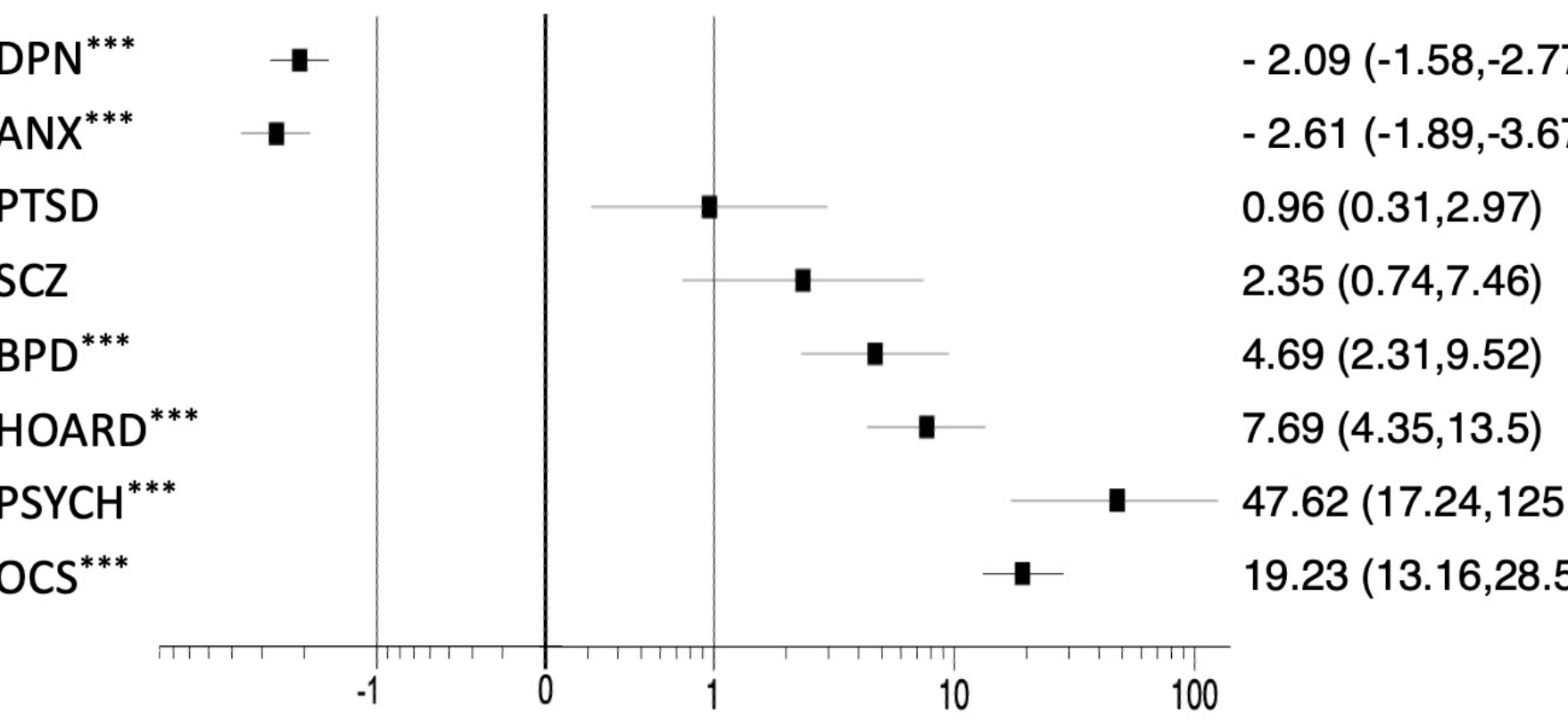


Fig. 4: Adjusted odds ratio psychiatric conditions in bvFTD vs EOAD. DPN and ANX are more likely in AD whereas BPD, HOARD, PSYCH, OCS are more common in FTD. PTSD and SCZ do not occur at statically different rates. *** p -value < 0.001

CITATIONS

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