

## Do patients with bvFTD suffer from "genuine" memory deficits? A meta-analytic approach

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**State of the art:** The current diagnostic criteria of behavioural variant of frontotemporal dementia (bvFTD) foresee a relative sparing of long term memory. However, it has been shown that bvFTD can present with memory deficits, similar to patients with Alzheimer's disease (AD). The Free and Cued Selective Reminding Test (FCSRT) allows discriminating "genuine" memory impairments, possibly related to mesial temporal lobe dysfunction, from "secondary" disorders due to encoding and retrieval deficits associated with prefrontal dysfunctions.

We aimed at assessing the nature (i.e., genuine vs secondary) and the extent of memory deficit in bvFTD.

**Methodology:** We employed a systematic review and a meta-analytic approach. The systematic review is registered on PROSPERO and follows the PRISMA guidelines. We selected all the studies presenting the FCSRT subtest performance with bvFTD. As additional eligible criteria, at least one control population (Alzheimer's disease – AD; or Healthy –HC) should have been included.

We used a random effect Bayesian meta-analysis to obtain the best estimates from the pooled effect size.

**Results:** The analyses show that patients with bvFTD present both genuine and secondary memory disorders. The effect size of the genuine deficit is strong, but bvFTD patients still behave better than Alzheimer's disease patients.

**Conclusions:** The meta-analysis suggests the presence of a genuine memory disorder in bvFTD together with the secondary deficit as well. The severity of bvFTD stands in between AD and HC.

These findings could contribute to discussing the international consensus criteria for bvFTD and the neuropsychological tools to make a valuable differential diagnosis.

### Conflicts of interest

Authors have no conflict of interest to disclose