

Depression, anxiety and apathy in young-onset and atypical dementia: A systematic review

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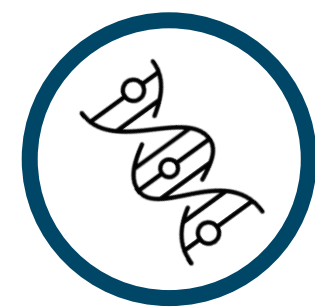
Background

Depression, anxiety and apathy are among the most frequent neuropsychiatric symptoms (NS) in typical Alzheimer's disease¹, and impact quality of life, risk of institutionalisation, and caregiver burden^{2,3,4}. However, prevalence in atypical and young-onset phenotypes remains unknown.

Aim

To examine the body of empirical studies investigating the prevalence of depression, anxiety, and apathy in atypical and young-onset dementia.

Atypical dementias:



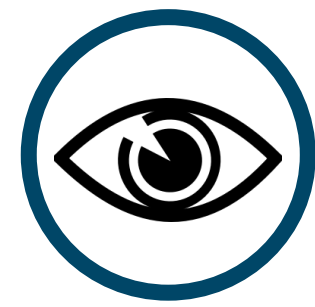
Familial Alzheimer's (FAD)

Decline in memory caused by genetic mutation



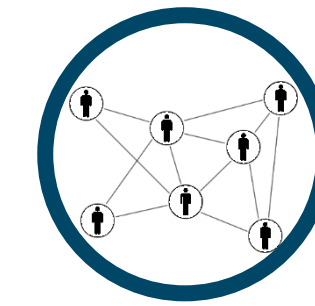
Young-onset Alzheimer's (YOAD)

Decline in memory <65 years



Posterior cortical atrophy (PCA)

Decline in visual function



Behavioural variant frontotemporal dementia (bvFTD)

Change in behaviour, lack of social awareness



Logopenic progressive aphasia (LPA)

Deficits in naming and repetition



Progressive non-fluent aphasia (PNFA)

Effortful, non-fluent speech, grammatical errors



Semantic dementia (SD)

Decline in conceptual knowledge

Methods

- Systematic search of Embase, PsycINFO and PubMed up to September 2017
- 3659 records identified – 37 met inclusion criteria for review

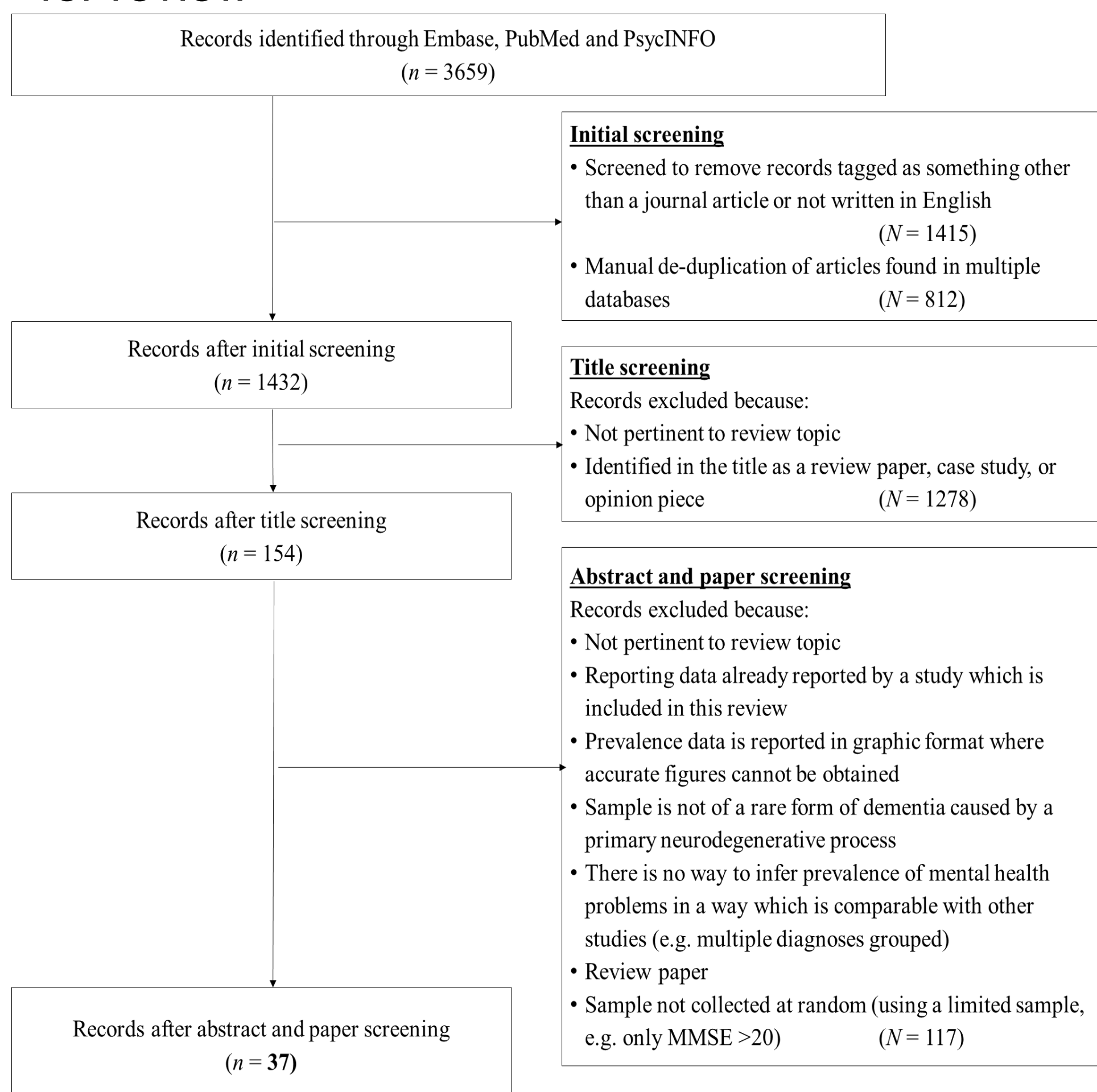


Figure 1. Flow diagram of study selection

Quality assessment

The likely representativeness of each study's results was assessed against the following criteria:

- Diagnosis of dementia
- Measure of mental health symptoms
- Reporting age and disease severity
- Exclusion of those with psychiatric history
- Recruitment setting
- Sample size

Results

Diagnosis	Depression	Anxiety	Apathy	Quality score (/24)
General phenotypes				
YOAD	11-56% (n = 7)	10-56% (n = 4)	45-71% (n = 2)	12-20
FTD	8-70% (n = 10)	0-100% (n = 8)	50-100% (n = 6)	11-16
PPA	33-43% (n = 4)	15-33% (n = 2)	48-67% (n = 4)	10-12
Specific phenotypes				
bvFTD	7-52% (n = 9)	19-63% (n = 6)	73-100% (n = 7)	10-19
SD	44-78% (n = 6)	41-56% (n = 4)	23-80% (n = 5)	7-12
LPA	29-46% (n = 2)	38-71% (n = 2)	32-57% (n = 2)	11-12
PNFA	33-57% (n = 3)	27-36% (n = 2)	9-64% (n = 3)	11-13
PCA	42-55% (n = 2)	45-64% (n = 2)	42-60% (n = 2)	11-12
FAD	42-47% (n = 1)	-	-	10

Table 1. Range of prevalence figures of depression, anxiety, and apathy reported for each atypical dementia diagnosis, and the range of quality assessment scores assigned to papers. *N* represents number of papers

Conclusions

- Apathy is the most frequent NS compared to depression and anxiety, with high variability across phenotypes
- Very few highly representative studies, with the most common limitations being generally small sample sizes, and recruitment from tertiary care settings