

Are Developmental Learning Disorders risk factors for Neurodegenerative Diseases?

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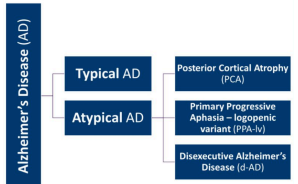
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Introduction

Factors associated with **early life educational performance** can be related to:

- neurodevelopment
- cognitive functioning
- risk for dementia

Early life factors < Adult biomarkers






Alzheimer's Disease (AD)

- Typical AD
 - Posterior Cortical Atrophy (PCA)
- Atypical AD
 - Primary Progressive Aphasia – logopenic variant (PPA-lv)
 - Disexecutive Alzheimer's Disease (d-AD)

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Methods

A **systematic review** of the evidence available was last updated on December 2021.



Inclusion Criteria

- Developmental Learning Disorders (LD)
- Late-onset Neurodegenerative Diseases (NDD)
- Original articles

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Results

- n = 6 studies.
- Significant prevalence of LD in patients with **atypical variants of AD**.
- Association between:**

Primary Progressive Aphasia – logopenic variant		Language-related LD
Posterior Cortical Atrophy		Non language-related LD

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Discussion

Selective vulnerability hypothesis

- Vulnerability of a particular brain network or area could **predispose** both to **developmental LD** and **late-onset NDD**.

Developmental LD could be risk factors for late-onset NDD

- Especially, **atypical AD variants**.

Future research

- Larger** samples
- Longitudinal** design

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