

A Cross-National Study of Depression in Pre-clinical Dementia: a COSMIC Collaboration Study

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ABSTRACT

INTRODUCTION: Depression commonly accompanies Alzheimer's disease, but the nature of this association remains uncertain.

METHODS: Longitudinal data from the COSMIC consortium were harmonized for 8 population-based cohorts from 4 continents. Incident dementia was diagnosed in 646 participants, with a median follow-up time of 5.6 years to diagnosis. The association between years to dementia diagnosis and successive depressive states was assessed using a mixed effect logistic regression model. A generic inverse variance method was used to group study results, construct forest plots, and generate heterogeneity statistics.

RESULTS: A common trajectory was observed showing an increase in the incidence of depression as the time to dementia diagnosis decreased despite cross-national variability in depression rates.

DISCUSSION: The results support the hypothesis that depression occurring in the pre-clinical phases of dementia is more likely to be attributable to dementia-related brain changes than environment or reverse causality.