

Special Issue on Neuropsychology, from the Founding Conference of the Hellenic Neuropsychological Society, 9-10 April, 2016, Athens, Greece.

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Lecture

Selective Review of the Contribution of Neuropsychological Assessment for the Prediction of Subsequent Dementia: Conclusions and Limitations

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Abstract

Neuropsychological procedures have been extensively studied as predictors of subsequent dementia in several ways. First, neuropsychological procedures have been used to identify persons with Mild Cognitive Impairment (MCI; persons at high risk for dementia) and its subtypes (amnesic, non-amnesic, with single and multiple impairments). Second, neuropsychological tests have been used to examine the exact cognitive function that best predicts future cognitive decline. Third, studies have assessed the predictive utility of specific tests for subsequent dementia. The predictive ability of all three approaches has been documented in numerous studies. However, the existing studies cannot elucidate which specific MCI subtype, which cognitive domain and which neuropsychological test *best* predicts subsequent dementia. Methodological limitations, such as lack of harmonization of the operational criteria used for the definition of MCI and its subtypes, alternative approaches used to assess a specific cognitive function, various neuropsychological tasks and metrics included in prediction models and various statistical approaches limit the comparability of studies and complicate the identification of the optimal implementation of neuropsychological procedures for the prediction of subsequent cognitive impairment and dementia.