

P01-92

THE MEMORY AND ATTENTION TEST (MAT): AN ADAPTIVE, COMPUTER-BASED PERFORMANCE TEST FOR EARLY RECOGNITION AND TREATMENT EVALUATION IN DEMENTIA

G. Adler^{1,2}, M. Bektas¹, P. Hoffmann²

¹*Institut fuer Studien zur Psychischen Gesundheit (ISPG)*, ²*Dynamikos GmbH, Mannheim, Germany*

Performance tests in dementia usually aim at a differentiated and standardized assessment of memory. They may be applied for early diagnosis, assessment of progression and demonstration of treatment effects, particularly for disease-modifying treatments in Alzheimer's dementia.

The tests currently applied are subject to various limitations. The results obtained are contaminated by impairments in cognitive domains other than memory, because respective capabilities are a precondition for the assessment of memory by means of these tests. For instance, some tests for the assessment of visual memory imply a certain level of motor, constructional or executive capabilities. On the other hand, the memory tests available are usually not adaptive, i.e. they may not be individually adjusted to the level of performance. Adaptivity as a feature of a neuropsychological performance test requires sequence control based on intermediate results and may be realized by the implementation of the test on a computer. The handling and the design of the user surface have to be adapted to the requirements of older people.

In order to meet these demands, a computer-based adaptive memory and attention test, the MAT was developed. Working memory and short-term memory are assessed in the verbal, visual and episodic domains by six independent tests individually adjusted to the subjects level of performance on the basis of intermediate results. Sustained attention is also assessed. The single tests do not require constructional or executive abilities. Make-up and handling are adapted to the requirements of older people.