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MEASURING MEMORY IN OLDER ADULTS: THE RELEVANCE OF EVERYDAY MEMORY AND THE RIVERMEAD BEHAVIOURAL MEMORY TEST

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ABSTRACT

Assessment of memory in older adults is complicated by the varying health and disability status of older individuals, by normal age-related changes and by inadequacies in the theory underpinning memory aging. Additionally, there are limitations in conventional measures of memory when used with older adults particularly in the lack of ecological validity in measuring everyday memory processes. This limitation may risk overestimating the degree of impairment relative to the typical daily demands on memory experienced by older people.

The current studies present an evaluation of the Rivermead Behavioural Memory Test (RBMT), a measure of everyday memory performance, which appeared to address some of these concerns. The RBMT was produced as a screening tool, but an exploratory study suggested that some of its subtests may discriminate between dementias of vascular and nonvascular origin. A series of studies were subsequently undertaken to evaluate the properties of the test when used in clinical memory assessment of older adults. Results supported the use of the RBMT as both a screening and diagnostic tool. This expanded use requires clinical norms based on the subtest raw scores. Results also supported the view that everyday memory remains relatively stable into the ninth decade in the absence of a dementing condition.

The RBMT was not designed against a theoretical concept or model. Findings from these studies are interpreted within a working memory and systems theory framework. It is concluded that short composite measures relevant to everyday memory experiences might ultimately prove more reliable and valid than conventional tests, in assessing memory in older adults.

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OVERVIEW

This study arose in 1992 out of dissatisfaction with measures available for clinical memory assessment with older adults. Conventional tests did not reflect the day-to-day demands on memory which most older people experienced and often appeared to overestimate the degree of deficit. It seemed that measures which used content drawn from tasks relevant to everyday memory might be more reliable and clinically valid for use with older adults.

The Rivermead Behavioural Memory Test (RBMT), which was designed to have high ecological validity, was subsequently used over a two year trial period in our practice with a wide range of older adults. Observation and retrospective analyses suggested that the test was useful as a screening test (which was its initial objective) and also had potential as a diagnostic aid for distinguishing between early vascular and Alzheimer's-type dementias. A series of studies were undertaken to examine these observations more thoroughly. The initial studies were designed to clarify issues concerning reliability while the final study was aimed at evaluating the discriminative validity of the test.

This thesis commences with a discussion of the difficulties faced when testing memory function in older adults and reasons are outlined why more attention is needed to this growing field of neuropsychology. Chapter 1 also outlines the main considerations when testing memory in older clients and suggests that these considerations are not well met when examined alongside conventional memory tests. The traditional emphasis on laboratory-derived memory tests is a major reason for this and in Chapter 2, the conventional approach to conceptualising memory processes is outlined. Although expansively researched, there is still no integrated theory of memory function and aging. This chapter also introduces concepts related to everyday memory, working memory

and systems theory each of which are relevant to the theoretical rationale underpinning the current studies.

The results of research on normal and abnormal memory aging are discussed and summarised in Chapter 3. The concept of age-associated memory impairment is outlined and terms and distinguishing characteristics related to the main forms of dementia are defined.

In Chapter 4, the RBMT is described and evaluated with reference to research reporting its reliability and validity when used with older adults. A recapitulation is presented in Chapter 5 and the research design for the studies which follow is outlined.

An initial exploratory study (Chapter 6) is followed by three further studies each of which report on properties of the RBMT in measuring everyday memory in older adults. Chapters 7 and 8 each clarify reliability issues based on the results obtained from a well independent sample and two clinical samples. Chapter 9 reports on the discriminative properties of the RBMT when used to distinguish between two types of dementing condition.

Theoretical explanations are considered in Chapter 10 and following a summary of the project, the final chapter suggests a number of modifications to the RBMT and outlines areas for future research.