

Performance of Large Allen Cognitive Level Test (LACL) in patients with Alzheimer's disease.

Szu-Hui Wu¹, Ming-Chyi Pai², Tsui-Ying Wang¹

¹Department of Occupational therapy, National Cheng Kung University, Tainan City, Taiwan, ²Division of Behavioral Neurology, Department of Neurology, National Cheng Kung University, Tainan City, Taiwan

Introduction

The Large Allen Cognitive Level Test (LACL) is a good screening tool to determine the cognitive function and required assistance for the elderly. However there is little research about the applicability of LACL for the patients with Alzheimer's disease (AD).

Objectives

The purpose of this study was to examining the validity of LACL: concurrent validity compared with other neuropsychological tests; as well as the discriminant validity for the individuals with and without AD.

Methods

Twenty-three patients with mild AD diagnosed by NINCDS-ADRDA criteria were recruited and 19 community volunteers without cognitive impairments participated as the control group. Age, gender and education were controlled for both groups. The cognitive functions were evaluated by LACL, Mini-Mental Status Exam (MMSE), Cognitive Ability Screening Instrument (CASI), Clinical Dementia Rating scale (CDR), Digit Span (DS), Trail Making Test-A & B, Barthel Index (BI), and Lawton's Instrumental Activities of Daily Living (IADL).

Results

The results showed that there were significant differences between the two groups on all measures (p 's < .001) except BI and DS-forward. In addition, LACL correlated to all cognitive tests and IADL. Discriminant analysis showed that the LACL correctly classifies 90.5% of the subjects into their original groups.

Conclusion

The findings suggest that LACL is useful for the screening of AD and the LACL score associates with general cognitive function and mental flexibility.

Contribution to the practice / evidence base of occupational therapy.

CASI, CDR, or MMSE are mostly used for the evaluation of probable AD but the scores do not provide further information for the care of the patients. With LACL scores, we can suggest possible implications and needed assistances to the caregivers according to the cognitive disability model.