The Informant AD8 is Superior to Participant AD8 in Detecting Cognitive Impairment in a Memory Clinic Setting

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Abstract. The informant AD8 has good discriminatory indices in detecting questionable dementia. However, studies on participant AD8 yielded inconsistent results. This study aims to investigate the discriminatory ability of the AD8 in detecting cognitive impairment at a memory clinic by comparing the informant AD8, participant AD8, Montreal Cognitive Assessment (MoCA), and Mini-Mental State Examination (MMSE). The AD8 was administered to 280 participant-informant dyads. The MoCA and MMSE were administered to all participants, who subsequently received a comprehensive clinical and neuropsychological assessment leading to a consensus diagnosis and a Clinical Dementia Rating (CDR). Area under the receiver operating characteristic curve (ROC) analysis was used to compare the discriminatory ability of AD8, MoCA, and MMSE. Participants were Chinese (83.6%) females (54.3%) with a mean age and education of 73.4 ± 8.6 years and 6.2 ± 5.6 years, respectively. The discriminant validity of the informant AD8 was significantly superior to the participant AD8 in detecting cognitive impairment (CDR ≥ 0.5) {Area Under Curve (AUC) [95% confidence interval (CI)]: 0.96 (0.93–0.98) versus 0.66 (0.58–0.74), p < 0.01}. Furthermore, the informant AD8 was equivalent to MoCA and MMSE in detecting cognitive impairment {AUC [95% CI]: MoCA [0.98 (0.96–0.99)]; MMSE [0.95 (0.93–0.98)]}. The informant AD8 (≥ 2) had very good sensitivity and specificity, while the participant AD8 (≥ 2) had suboptimal sensitivity and specificity in detecting cognitive impairment (sensitivity 0.93 versus 0.59; specificity 0.87 versus 0.65; 91.8% versus 60% correctly classified). The informant AD8 is superior to the participant AD8, and equivalent to the MMSE and MoCA in screening for cognitive impairment in memory clinic patients.

Keywords: AD8, cognitive impairment, dementia, memory clinics, screening instrument

INTRODUCTION

Dementia causes disability in older adults and is considered a global public health priority by the World Health Organization [1]. It has a high prevalence, with an estimated number of 35.6 million dementia patients