

factors and sources of resiliency in LGBTQ populations. Culturally competent care is integral to psychiatric treatment of older LGBTQ adults.

Note:

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544 - Validation of a new cognitive screening tool, the Brain Health Test-7, for identification of mild cognitive impairment and early dementia in 3 different kinds of hospital settings

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Background

The Brain Health Test-7 (BHT-7) is a revised tool from the original BHT, containing more tests about frontal lobe function. It was developed with the aim of identifying patients with mild cognitive impairment (MCI) and early dementia.

Research objective

Here we report the validity of the BHT-7 versus the Mini-Mental State Examination (MMSE) and Montreal Cognitive Assessment (MoCA) in different psychiatry or neurology clinics.

Methods

Patients with memory complaints were recruited in this study from the outpatient clinic of psychiatry or neurology in 3 different kinds of hospitals. All patients underwent the evaluation of the BHT-7, MMSE, MoCA, and clinical dementia rating (CDR). The clinical diagnosis (normal, MCI, dementia) was made by consensus meeting, taking into account all available data.

Demographic data and the scores of the MMSE, MoCA, and BHT-7 between groups were compared. Logistic regression was adopted for analysis of optimal cutoff values, sensitivity, specificity, positive predictive value (PPV), negative predictive value (NPV), receiver operating characteristic (ROC) curve, and the area under the ROC curve (AUC).

Results

We enrolled a total of 1090 subjects (normal 402, MCI 317, dementia 371); of them, 705 (64.7%) were female. There was a statistically significant difference in age, years of education, and 3 cognitive test scores among the 3 groups.

Compared with the MMSE and MoCA, the BHT-7 performed slightly better than MMSE and MoCA in differentiating MCI or dementia from the normal controls (Table 1). For BHT-7, the cutoff point was 17 between normal and MCI, and 14 between normal and dementia. These cutoff points for BHT-7 were consistent through 3 different clinical settings, but inconsistent for MMSE and MoCA. The testing time for the BHT-7 was about 5-7 minutes, shorter than that of the MMSE and MoCA.

Conclusion

Compared with MMSE and MoCA, the BHT-7 showed slightly better performance in differentiating normal from MCI or dementia subjects. The testing time for the BHT-7 was shorter, and its cutoff points were consistent through different outpatient clinic settings. The results support that BHT-7 is a useful cognitive screening tool for MCI or early dementia in various hospital settings.

Table 1: Comparisons of the performance of BHT-7, MMSE, MoCA

	AUC	cutoff	SEN	SPE	PPV	NPV
Normal vs. MCI						
BHT-7	0.8532	≤17	0.8170	0.7413	0.7135	0.8371
MMSE	0.8061	≤27	0.7950	0.6883	0.6684	0.8091
MoCA	0.8316	≤25	0.8202	0.6791	0.6684	0.8273
Normal vs. Dementia						
BHT-7	0.9848	≤14	0.9434	0.9602	0.9563	0.9484
MMSE	0.9693	≤24	0.8895	0.9626	0.9565	0.9040
MoCA	0.9768	≤21	0.9245	0.9428	0.9372	0.9312
Normal vs. MCI + Dementia						
BHT-7	0.9241	≤16	0.8372	0.8458	0.9028	0.7522
MMSE	0.8941	≤25	0.7282	0.9152	0.9365	0.6625
MoCA	0.9099	≤23	0.8081	0.8532	0.9041	0.7221

545 - Exploratory factor analysis of the Rowland Universal Dementia Assessment Scale.

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