OXFORD
UNIVERSITY PRESS

Archives of Clinical Neuropsychology 35 (2020) 935

Archives of CLINICAL NEUROPSYCHOLOGY

Abstract

Posters

NEUROLOGICAL AND NEUROPSYCHIATRIC DISORDERS: TRAUMATIC BRAIN INJURY

A - 142

Examining the Impact of the Recent New Dot Counting Test Cut-Off Score in Bilingualism and Traumatic Brain Injury Survivors

Graub N, Lopez-Hernandez D, Litvin P, Rugh-Fraser R, Rad H, Saravia S, Bichlmeier A, Olmos W, Lee M, Fatoorechi S, Bueno A, Arzuyan A, Budding D, Vespa P, Hovda D, Mcarthur D, Plurad D, Fuster J, Woo E, Hardy D, Boone K, Wright M

Objective: McCaul et al. (2018) recently revised the Dot Counting Test (DCT) cut-off score from ≥17 to 13.80; we evaluated the new cut-off in monolingual and bilingual traumatic brain injury survivors (TBIS) and healthy comparison participants (HCP). Method: The sample consisted of 43 acute TBI [ATBI; 23 English monolinguals (EM); 11 English first language bilinguals (EFLB); and 9 English second language bilinguals (ESLB)]; 30 chronic TBI (CTBI; 13 EM; 9 EFLB; 8 ESLB), and 56 HCP (23 EM; 11 EFLB; 22 ESLB). Results: An ANCOVA, controlling for age and education, revealed an interaction where ATBI-EFLB had higher E-scores than the other groups and the CTBI-EFLB had lower E-scores than the other groups. Both the conventional and proposed new cut-off (PNC) scores had different failure rates in ATBI (conventional cut-off: 9%; PNC: 28%), CTBI (conventional cut-off: 10%; PNC: 20%), and HCP (conventional cut-off: 11%; PNC: 13%). For language groups, EM (conventional cut-off: 14%; PNC: 22%), EFLB (conventional cut-off: 10%; PNC: 26%), and ESLB (conventional cut-off: 5%; PNC: 10%) demonstrated different failure rates across cut-off scores. Group differences were found with McCaul et al. (2018) cut-off, but not the conventional cut-off score. Also, chi-squared analysis revealed ATBI EFLB and EM had greater failure rates than ATBI ESLB. Conclusion: Unfortunately, the new DCT cut-off score resulted in greater failure rates in TBIS. Furthermore, ATBI EM and EFLB were impacted more by the new cut offs than ATBI ESLB who learned English later in life, although the reason for this finding is unclear and requires additional study.

doi:10.1093/arclin/acaa068.142