

accuracy (AUC = .71- .80). At the previously identified cutoff of age corrected scale score of 6 for all four conditions, specificity was high (.88 - .91), with varying sensitivity (.23 - .45). At the previously identified cutoff of .75 for the inverted strop index, specificity was high (.87) while sensitivity was low (.19). Composite indicators yielded high specificity (.88 - .99) at previously established cutoffs with sensitivity varying from low to moderate (.19 - .48). Increasing the cutoffs (i.e., requiring higher age corrected scale score to pass) for composite indicators increased sensitivity while still maintaining high specificity. For example, increasing the total score cutoff from 18 to 28 resulted in moderate sensitivity (.26 vs .52) with specificity of .91.

Conclusions: While a cutoff of 6 resulted in high specificity for most conditions, the sum of all four conditions exhibited the strongest classification accuracy and appears to be the most robust indicator which is consistent with previous research (Eglit et al., 2019). However, a cutoff of 28 as opposed to 18 may be most appropriate for psychoeducational samples. Overall, the results suggest that the D-KEFS CWIT can function as a measure of performance validity in addition to a measure of processing speed/executive functioning.

Categories: Forensic
Neuropsychology/Malingering/Noncredible Presentations

Keyword 1: performance validity

Keyword 2: validity (performance or symptom)

Keyword 3: noncredible presentations

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79 The Clinical Utility of Reliable Digit Span in Predicting Effort on the TOMM in Youth with a History of a Concussion

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Objective: Performance validity testing (PVT) is important in neuropsychological evaluations to ensure accurate interpretation of performance. While research shows children pass PVTs with adult cut-offs, PVTs are more commonly used with adults (Lippa, 2018). The Test of Memory

Malingering (TOMM), a standalone PVT, is commonly used with adults and children (DeRight & Carone, 2015). The Reliable Digit Span (RDS), an embedded PVT derived from the Digit Span subtest of the Wechsler Intelligence Scales (Wechsler Intelligence Scale for Children-4th Edition, WISC-IV; Wechsler, 2003), is less commonly used with children (DeRight & Carone, 2015). RDS cut-off scores are associated with an increased rate of false positives in children, indicating mixed results regarding the clinical utility in pediatric populations (Welsh et al., 2012). Research shows that youth with a history of concussion (HOC) may demonstrate suboptimal effort for many reasons (e.g., external incentives, boredom, pressure), thus highlighting the need to investigate the utility of PVTs in this population (Araujo et al., 2014; DeRight & Carone, 2015). The present study aimed to examine the clinical utility of RDS in detecting poor effort on the TOMM in youth athletes with a HOC.

Participants and Methods: Participants included 174 youth athletes aged 8 to 18 (20.1% female; 42.5% people of color (POC)) who completed a baseline neuropsychological battery that included the TOMM and WISC-IV Digit Span. Of the sample, 29 youth athletes reported a HOC (13.8% female; 37.9 POC). RDS was calculated for each Digit Span administration, and sensitivity (SN) and specificity (SP) were calculated for RDS when invalid performance was operationalized by a more stringent cut-off score of <49 to increase the SN of the TOMM Trial 1 (Stenclik et al., 2013). Receiver operator characteristics (ROC) curve analysis determined whether RDS performance accurately predicted participants' performance on the TOMM.

Results: The ROC curve analysis resulted in an area under the curve (AUC) of just 0.427 for RDS. A cut-off score of <7 (as suggested by Kirkwood et al. (2011)) for RDS results in 100% SN, 8.3% SP, 5% positive predictive validity (PPV), and 95% negative predictive validity (NPV). However, a cut-off score of <9 for RDS results in 75% SN, 15% SP, 25% PPV, and 75% NPV.

Conclusions: Little research shows the utility of different PVTs predicting children's performance on other PVTs, despite evidence that children with a HOC are vulnerable to variable or insufficient effort (Araujo et al., 2014; DeRight & Carone, 2015). In a sample of 29 youth athletes with a HOC, RDS predicted TOMM performance

at rates worse than chance. While RDS has advantages as an embedded PVT, its limited ability to predict performance on a standalone PVT suggests interpreting with great caution. These findings highlight the importance of implementing multiple PVTs throughout testing to ensure accurate findings and interpretations, particularly in youth with a HOC. The small sample size is a limitation that possibly impacted the ability of RDS to predict TOMM performance. Further research is needed to understand the utility of RDS as a predictor of PVT performance in different populations. Replication of these findings with a larger sample size is needed to provide confirmatory evidence of poor predictive performance of the RDS.

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Keyword 1: validity (performance or symptom)

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80 Demographic Factors Affecting Sensitivity Rates of Performance Validity Tests in Spanish-Speaking Forensic Litigants.

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Objective: This retrospective study compared base rates of failure on a series of standalone and embedded performance validity tests (PVTs) in a sample of Spanish-speaking forensic litigants and explored the impact of demographic factors on PVT performance.

Participants and Methods: 62 Spanish-speaking participants involved in litigation (primarily for work-related mTBI) underwent outpatient neuropsychological evaluation. Country of origin spanned South American (56.5%), Caribbean (22.5%), Central American (16.1%), North American (3.2%), and Spanish

(1.6%) regions. Of this sample, 56 completed the Test of Memory Malingering (TOMM), 45 completed the Rey Fifteen Item Test (RFIT), and 49 completed the Dot Counting Test (DCT). Embedded validity measures, Reliable Digit Span (RDS) and the WHO-Auditory Verbal Learning Test (WHO-AVLT) were completed by 32 and 48 participants, respectively.

Results: Effects of age ($M=42.4$, $SD=11.72$) and region of origin did not significantly impact overall performance on any measure. Mean scores across all standalone PVTs were below cutoffs, which have been previously suggested for use with Spanish-speaking populations (TOMM <40, RFIT total <21, DCT e-score >18). Overall base rates of failure were as follows: 52.5% TOMM (T1 $M=37.5$, $SD=10.7$; T2 $M=35.1$, $SD=10.6$), 64.9% RFIT ($M=17.8$, $SD=7.8$) 57.6% DCT ($M=18.3$, $SD=8.8$), 51.1% RDS ($M=6.1$, $SD=1.6$), 29.4% WHO-AVLT ($M=10.7$, $SD=3.9$). Years of education ($M=9.98$, $SD=3.96$) was significantly correlated with RFIT total score ($r(43) = .48$, $p < .01$) and DCT e-score ($r(47) = -.34$, $p < .05$). When stratified by level of education (0-6, 7-11, and 12+), a large discrepancy in base rate of failure was observed on the RFIT, with failures in 92% of participants with less than six years of education, as compared to 52% and 59% failure in those with 7-11 and 12+ years, respectively. Variability in base rates of DCT failure across levels of education, although less extreme than on the RFIT, again demonstrated higher rates of failure in participants with less than six years of education (0-6: 71%, 7-11: 54%, 12+: 52%).

Conclusions: These findings add to the existing literature surrounding measurement of suboptimal effort in Spanish-speaking populations. Base rates of PVT failure on both standalone and embedded measures were generally much higher than those reported in prior studies of forensic or compensation-seeking groups, including some with Spanish speaking participants. These high rates of failure are likely attributable, at least in part, to sample characteristics, due to the high proportion of individuals engaged in litigation associated with workplace injuries on construction sites at the study location. Such findings illustrate the importance of a thorough effort assessment for this population. Finally, results demonstrating reduced specificity of the RFIT in Spanish-speaking participants with less than six years of education, suggesting caution is warranted for its use in neuropsychological evaluations with such individuals.