

individuals involved in litigation, compared to those who were not (healthy and neurological). Notably, the BVMC-R RD index significantly differentiated validity groups, maintaining adequate sensitivity and good specificity. Overall, results demonstrate promise for BVMC-RD as a PVT for Spanish-speaking populations.

Categories: Forensic Neuropsychology/Malingering/Noncredible Presentations

Keyword 1: performance validity

Keyword 2: malingering

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88 Determining the Eye-Tracking Strategies Used in the Game "Spot the Missing Object (SMO)" by Simulator Malingers, ADHD, and Non-ADHD

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Objective: Typical evaluations of adult ADHD consist of behavior self-report rating scales, cognitive or intellectual functioning measures, and specific measures designed to measure attention. Boone (2009) suggested monitoring continuous effort is essential throughout psychological assessments. However, very few research studies have contributed to malingering literature on the ADHD population. Many studies have reported the adequate use of symptom validity tests, which assess effortful performance in ADHD evaluations (Jasinski et al., 2011; Sollman et al., 2010; Schneider et al., 2014). Because of the length of ADHD assessments, individuals are likely to become weary and tired, thus impacting their performance. This study investigates the eye movement strategies used by a clinical ADHD population, non-ADHD subjects, and malingering simulators when playing a common simple visual search task.

Participants and Methods: A total of 153 college students participated in this study. To be placed in the ADHD group, a participant must endorse four or more symptoms on the ASRS (N = 37). To be placed in the non-ADHD, participants should have endorsed no ADHD

symptoms (N = 43). Participants that did not meet the above criteria for ADHD and not-ADHD were placed in an Indeterminate group and were not included in the analysis. A total of 20 participants were instructed to fake symptoms related to ADHD during the session. A total of twelve Spot the Difference images were used as the visual picture stimuli. Sticky by Tobii Pro (2020) was used for the collection of eye-movement data was utilized. Sticky by Tobii Pro is an online self-service platform that combines online survey questions with an eye-tracking webcam, allowing participants to see images from their home computers.

Results: Results indicated on the participants classified as Malingering had a significantly Visit Count (M = 17.16; SD= 4.99) compared to the ADHD (M = 12.53; SD= 43.92) and not-ADHD groups (M = 11.51; SD=3.23). Results also indicated a statistically significant Area Under the Curve (AUC) = .784; SE = .067; p = .003; 95% CI = .652-.916. Optimal cutoffs suggest a Sensitivity of 50% with a False Positive Rate of 10%.

Conclusions: Results indicated that eye-tracking technology could help differentiate simulator malingers from non-malingers with ADHD. Eye-tracking research relates to a patchwork of fields more diverse than the study of perceptual systems. Due to their close relation to attentional mechanisms, the study's results can provide an insight into cognitive processes related to malingering performance.

Categories: Forensic Neuropsychology/Malingering/Noncredible Presentations

Keyword 1: noncredible presentations

Keyword 2: inhibitory control

Keyword 3: attention deficit hyperactivity disorder

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89 Detecting Feigned Cognitive Impairment Using Pupillometry on the Warrington Recognition Memory Test for Words

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Objective: Traditional methods of assessing performance validity have numerous weaknesses, among them, results can be consciously manipulated by examinees who wish to feign cognitive impairment. This study tested the ability of pupillary dilation patterns during a performance validity test (PVT) to enhance diagnostic accuracy in discriminating true from feigned impairment of traumatic brain injury (TBI). Pupillometry provides information about physiological and psychological processes related to cognitive load, familiarity, and deception and is outside of conscious control. Patrick, Rapport, Kanser, Hanks, and Bashem (2021) established proof of concept for the utility of pupillometry with PVTs applied to the Test of Memory Malingering (TOMM). This study replicated and extended this work by evaluating the incremental utility of pupillary-derived indices on the Warrington Recognition Memory Test for Words (RMT).

Participants and Methods: Participants included 214 adults in three groups: adults with bona fide TBI (TBI; $n = 51$) healthy comparisons instructed to perform their best (HC; $n = 72$), and healthy adults instructed and incentivized to simulate cognitive impairment due to TBI (SIM; $n = 91$). Moreover, this study examined pupillary pattern differences among successful (i.e., failed < 1 PVT and performed impaired on cognitive tests) and unsuccessful (i.e., failed > 2 PVTs or did not score impaired on a cognitive test) SIM, including SIM who did and did not fail the RMT. The RMT was administered in the context of a comprehensive neuropsychological battery. Indices included two pure pupil dilation (PD) indices: a simple measure of baseline arousal (PD-Baseline) and a nuanced measure of dynamic engagement (PD-Range). A pupillo-behavioral index was also evaluated: Dilation-response inconsistency (DRI) captured the frequency with which examinees displayed a pupillary familiarity response to the correct answer but selected the unfamiliar stimulus (incorrect answer).

Results: The results generally replicated Patrick et al. (2021), as all three indices were useful in discriminating between groups and provided incremental utility to traditional accuracy scores. PD-Baseline appeared sensitive to oculomotor dysfunction due to TBI (i.e., increasing accurate

identification of that group); adults with TBI displayed significantly lower chronic arousal as compared to the two groups of healthy adults (SIM, HC). In fact, the TBI group showed significantly lower PD-Baseline than both unsuccessful simulators who were detected as feigners and successful simulators who passed PVTs but effectively feigned TBI on other tests. Dynamic engagement (PD-Range) yielded a hierarchical structure such that SIM were more dynamically engaged than TBI followed by HC. As predicted, simulators engaged in DRI significantly more frequently than other groups. Moreover, DRI added unique information to RMT accuracy in classifying unsuccessful simulators from all other groups. Each of these three pupillary indices showed large effect sizes, and logistic regressions indicated that each contributed unique variance in predicting group membership on one or more of the paired contrasts (i.e., SIM-TBI, SIM-HC, HC-TBI).

Conclusions: Taken together, the findings support continued research on the application of pupillometry to performance validity assessment: Pupillometry provided unique information in enhancing classification accuracy beyond traditional PVT accuracy scores. Overall, the findings highlight the promise of biometric indices in multimethod assessments of performance validity.

Categories: Forensic

Neuropsychology/Malingering/Noncredible Presentations

Keyword 1: performance validity

Keyword 2: traumatic brain injury

Keyword 3: neuropsychological assessment

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90 Cognitive Success in the Setting of Performance Validity Failure

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Objective: Although studies have shown unique variance contributions from performance invalidity, it is difficult to interpret the meaning of cognitive data in the setting of failed