Noncredible cognitive performance at clinical evaluation of adult ADHD: An embedded validity indicator in a visuospatial working memory test.

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Abstract

The assessment of performance validity is an essential part of the neuropsychological evaluation of adults with attention-deficit/hyperactivity disorder (ADHD). Most available tools, however, are inaccurate regarding the identification of noncredible performance. This study describes the development of a visuospatial working memory test, including a validity indicator for noncredible cognitive performance of adults with ADHD. Visuospatial working memory of adults with ADHD (n = 48) was first compared to the test performance of healthy individuals (n = 48). Furthermore, a simulation design was performed including 252 individuals who were randomly assigned to either a control group (n = 48) or to 1 of 3 simulation groups who were requested to feign ADHD (n = 204). Additional samples of 27 adults with ADHD and 69 instructed simulators were included to cross-validate findings from the first samples. Adults with ADHD showed impaired visuospatial working memory performance of medium size as compared to healthy individuals. Simulation groups committed significantly more errors and had shorter response times as compared to patients with ADHD. Moreover, binary logistic regression analysis was carried out to derive a validity index that optimally differentiates between true and feigned ADHD. ROC analysis demonstrated high classification rates of the validity index, as shown in excellent specificity (95.8%) and adequate sensitivity (60.3%). The visuospatial working memory test as presented in this study therefore appears sensitive in indicating cognitive impairment of adults with ADHD. Furthermore, the embedded validity index revealed promising results concerning the detection of noncredible cognitive performance of adults with ADHD.