

Improving the Effectiveness of Assessment Measures in Diagnosing Adult ADHD

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ABOUT THE STUDY

Research regarding the diagnostic efficacies of the clinical interview, ADHD behavior rating scales, performance and symptom validity testing, and cognitive tests in diagnosing adult ADHD are judiciously reviewed. Clinical interviews alone and ADHD behavior rating scales alone have adequate sensitivity but poor specificity in diagnosing Attention Deficit Hyperactivity Disorder (ADHD). Symptom validity tests have reasonably good sensitivity and very good specificity in detecting invalid symptom presentation. Individual cognitive tests as well as test batteries have inadequate sensitivity and specificity in identifying ADHD. Using cognitive testing in conjunction with behavior rating scales very significantly improves the specificity of an assessment battery. Key clinical interview questions as well as behavior rating scales, cognitive tests, and symptom validity tests that should enhance current assessment practices are identified. Based on this review, a practical abbreviated, battery that should improve clinicians' ability to diagnose adult ADHD in young adults is recommended.

Diagnosis of ADHD is complicated by several important issues. These include the non-specificity of adult ADHD symptoms, the identification of symptoms that are most appropriate for adult ADHD (and best discriminate between those with and without this disorder), the reliability and accuracy of patient's and informant's reports of ADHD symptoms, inconsistencies between patient and informant reports on both interviews and behavior rating scales, the integration of multiple sources of assessment information, the identification of appropriate symptom thresholds for the frequency and severity of symptoms on ADHD behavior rating scales, the determination of a patient's level of functional impairment, and patient exaggeration of ADHD symptoms.

Most Primary Care Physicians (PCPs) feel they have inadequate knowledge and training to diagnose ADHD. Only 13% feel they have received "very or extremely thorough" clinical training in making this diagnosis. 48% of these PCPs reported feeling uncomfortable diagnosing adult ADHD. 75% of the 400 PCPs surveyed considered the quality and accuracy of tools for

diagnosing adult ADHD to be either "fair" or "poor". While accustomed to using a clinical interview and behavior rating scales, most clinicians would like to have more objective methods for diagnosis [1].

A typical ADHD assessment is based primarily on a clinical interview often augmented by an ADHD symptom related behavior rating scale and occasionally by a review of relevant school and medical records. There is minimal research on the accuracy of the clinical interview because the results of a clinical interview itself are the basis for the "gold standard" diagnosis of the ADHD criterion group in most research. Pettersson and colleagues found the Diagnostic Interview for ADHD in Adults had a sensitivity of 90% and specificity of 73%, in a group of adult outpatients presenting for ADHD assessment [2] Marshall, et al. [3] found that, of 102 patients later diagnosed [2] with ADHD based not only on the interview but additional assessment, 39% had an interview consistent with ADHD, 45% had an indeterminate interview, and 16% had an interview inconsistent with their having this disorder.

Most individual cognitive tests have poor sensitivity though some have reasonable specificity in identifying those with ADHD versus normal control subjects. Batteries of cognitive tests have greater and potentially more useful levels of sensitivity than individual tests. The addition of cognitive testing to ADHD behavior rating scales very significantly increases the specificity of an assessment battery thereby significantly reducing the number of patients mis-diagnosed as having ADHD. Nikolas, et al. [4] found that a combined approach that utilized self and informant ADHD symptom ratings, family history of ADHD, and neuropsychological tests yielded a classification accuracy of 87% when differentiating between patients in an ADHD criterion group versus those not diagnosed with ADHD.

CONCLUSION

A relatively brief, easily administered, and inexpensive diagnostic assessment battery based on the research reviewed is

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recommended [5]. It includes the three widely recognized components of ADHD assessment: A clinical interview, ADHD i.e. sustained attention, response inhibition, and working memory. The selected cognitive tests and behavior rating scales are commercially available, have appropriate norms, and have demonstrated significant discriminative validity. The battery also includes symptom validity tests that are essential in detecting invalid symptom presentation and minimizing false positive diagnoses. This assessment should take approximately 1 hour and 45 minutes for the patient to complete, less than 2 hours for an assistant to administer and score the assessment measures, and less than 1½ hours for the clinician to conduct the clinical interview as well as review and interpret all assessment results. Thus, the time needed to complete the proposed diagnostic battery is less than the 6-8 hours required to do a comprehensive ADHD assessment consisting of a complete review of medical records, a thorough diagnostic interview, neuropsychological testing, and a patient feedback session.

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