How to assess the merits of psychological and neuropsychological test evaluations

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Psychological and neuropsychological test evaluations, like all consultative diagnostic services, can vary in quality and clinical utility. Many of these examinations provide valuable insights and helpful recommendations; regrettably, some assessments are only marginally beneficial and can contribute to diagnostic confusion and uncertainty.

When weighing the pros and cons of evaluations, consider these best practices.

**Gold-standard tests ought to be included in the assessment.** These include (but are not limited to) the Wechsler Adult Intelligence Scale-Fourth Edition (WAIS-IV); Wechsler Memory Scale-Fourth Edition (WMS-IV); Delis-Kaplan Executive Function System (D-KEFS); Wechsler Individual Achievement Test-Third Edition (WIAT-III); and the Minnesota Multiphasic Personality Inventory-2 (MMPI-2). These tests have a strong evidence base that:

- demonstrates good reliability (ie, produce consistent and accurate scores across examiners and time intervals and are relatively free of measurement error)
- demonstrates good validity (ie, have been shown to measure aspects of psychological and neuropsychological functioning that they claim to measure).

Many gold-standard tests are normed on national samples and are stratified by age, sex, ethnicity or race, educational level, and geographic region. They also include normative data based on the performance of patients who have neuropsychiatric syndromes often seen by psychiatrists in practice.1

The test battery ought to comprise cognitive and neuropsychological measures as well as affective and behavioral measures. When feasible, these tests should be supplemented by informant-based measures of neuropsychiatric functioning to obtain a comprehensive assessment of the patient’s capacities and skills.

An estimated premorbid baseline should be established. This is done by taking a relevant history and administering tests, such as the National Adult Reading Test (NART), that can be used to compare against current test performance. This testing-in-context approach helps differentiate long-term limitations in information processing, which might be attributed to a DSM-5 intellectual disability, specific learning disorder, or other neurodevelopmental disorder, from a known or suspected recent neurobehavioral change.

Tests in the assessment should tap a broad set of neurobehavioral functions. Doing so ensures that, when a patient is referred with a change in cognition or other aspects of mental status, it will be easier to determine whether clinically significant score discrepancies exist across different ability and skill domains. Such dissociations in performance can have important implications for the differential diagnosis and everyday functioning.

Tests that are sensitive to a patient’s over-reporting of symptoms should be used as part of the evaluation in cases of

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suspected malingering—especially subtle simulation that might elude identification with brief screening-level measures. These tests can include the Test of Memory Malingering (TOMM) and the Structured Interview of Reported Symptoms, 2nd edition (SIRS-2).

Test recommendations ought to be grounded in findings; practical; and relatively easy to implement. They also should be consistent with the treatment setting and the patient’s lifestyle, values, and treatment preferences.

References