Overview of Advanced Clinical Solutions for WAIS-IV and WMS-IV

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Agenda
♦ Describe the purpose of Advanced Clinical Solutions for WAIS-IV and WMS-IV.
♦ Discuss applications and components of ACSW4W4.

ACS

Advanced Clinical Solutions for WAIS-IV and WMS-IV is an individually administered array of tests, procedures, and scores addressing specific clinical questions and needs.
Primary Goal of ACS . . .

To expand and enhance the clinical utility of WAIS-IV and/or WMS-IV through . . .

Applications of ACS . . .

additional assessments of:
- premorbid functioning
- effort
- social cognition
- executive function

A separate instrument, *Texas Functional Living Scale*, linked with the WAIS-IV and WMS-IV, can be used to assess daily living skills.

Applications of ACS . . .

and software that delivers:
- Demographically Adjusted Norms
- Additional scores for WAIS-IV and WMS-IV
- Reliable Change scores
Designed for Use . . .

♦ in forensic settings to measure pre-morbid function (insurance claims) and effort (malingering).
♦ with older adults to assess current status, premorbid functioning, decline in cognitive functions, and reliable change.

Designed for Use . . .

♦ with individuals who have traumatic brain injury to assess premorbid functioning, executive functions, and social cognition.
♦ with individuals with Autism/Asperger’s to evaluate social cognition.

Components of ACS

Memory Grid Cards
Word Choice Stimulus Book
Record Forms/Booklets
Additional Assessments

Premorbid Functioning

Test of Pre-Morbid Functioning (TOPF)

- Revision of the Wechsler Test of Adult Reading (WTAR).
- Provides an estimate of premorbid intellectual functioning.

Premorbid Functioning

Test of Pre-Morbid Functioning (TOPF)

- Has been revised and re-normed with WAIS-IV and WMS-IV.
- Has been enhanced by the addition of more difficult words and an extended IQ range of predictability.
Test of Premorbid Functioning

♦ Uses Atypical Grapheme-Phoneme translation to measure word knowledge through reading.
♦ Relatively resistant to brain injury and dementia.

Test of Premorbid Functioning

♦ Premorbid Prediction Models
  - Demographics only (simple or complex)
  - TOPF only
  - Demographics with TOPF
♦ Predict WAIS-IV Indexes and WMS-IV IMI, DMI, and VWMI

Test of Premorbid Functioning

♦ Estimates amount of cognitive functioning lost due to brain injury.
♦ An observed difference between expected performance and actual performance may indicate loss of functioning or there may be some other reason for lower test scores.
♦ Not designed to diagnose reading disorder.
Test of Premorbid Functioning

- Do not use the TOPF if there is a history of reading disorder.
- Do not use the reading test if examinee has aphasia or alexia.
- Use only when there is a suspected loss in cognitive functioning.

Sample Data-Case Study 2

43 year-old AF-AM Male with Ph.D. in economics. While riding his bicycle, he was struck by a motor vehicle.

Assessing Suboptimal Effort

- Help determine if the examinee's level performance is consistent with the nature of his or her injury or clinical condition.
- Information on effort may be required for certain medical-legal and forensic evaluations.
Effort

Assessing Suboptimal Effort

- Available for Ages 16-69
- External Measures
  - New subtest: Word Choice
- Embedded Measures
  - Reliable Digit Span
  - Logical Memory Recognition
  - Verbal Paired Associates Recognition
  - Visual Reproduction Recognition

Word Choice

1. Examinee identifies each word as either man-made or natural.
2. Examinee sees and hears 50 words in succession.
3. Examinee sees card with 50 pairs of words and selects word that was previously presented from each pair.

Social Cognition

Assessing Social Cognition

- An assessment of an individual’s ability to understand non-verbal communication and social interactions.
- Three new subtests (Social Perception, Faces - Supplemental, Names - Supplemental) provide assessments of emotion, face, and name recognition, as well as prosody and incidental recall of emotional expression. Audio files on CD-ROM.
Social Perception

Social Perception has 3 tasks
- Affect Naming (Happy, Sad, Angry, Surprise, Disgust, Fear, and Neutral)
- Prosody-Face Matching (includes Sarcasm)
- Prosody-Pairs Matching
  - Prosody to a pair of individuals interacting and describe how tone of voice changes the meaning of what is said.

Executive Function

Assessing Executive Function with selected tests from Delis-Kaplan Executive Function System (D-KEFS)
- Trail Making (Conditions 2, 3, & 4)
  - Number Sequencing, Letter Sequencing, Number-Letter Switching
- Verbal Fluency
  - Letter Fluency, Category Fluency, and Category Switching

Now correlated with WAIS-IV and WMS-IV

Verbal Fluency

Note - this is a language test in which deficits in executive functioning may be inferred if no significant language impairments are present.
Daily Living Skills

Texas Functional Living Scale

TFLS is a brief, ecologically valid, performance-based measure to identify the level of care required by an individual.

Authors: Munro Cullum, PhD, Myron F. Weiner, MD, and Kathleen C. Saine, PhD.

Publication Date: April 2009

Introduction to TFLS

- Brief assessment of functional competence
  - 15 minutes to administer
  - Assesses Instrumental Activities of Daily Living (IADL)

- Performance-based measure
  - Direct assessment of skills

- Designed for Ages 16-90
Introduction to TFLS

- **Uses**
  - Assess functional abilities (Time, Money and Calculation Skills, Communication, Memory)
  - Dementia screening
  - Monitor functional decline
  - Monitor treatment/drug efficacy
  - Determine level of care required
- **Linked with WAIS-IV and WMS-IV**

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TFLS

- Total Score T-Score metric combines all 4 domains.
- T-Score above 40 points suggests individual can live independently.
- T-Score below 25 points often suggests individual may need to reside in a special care unit.
- T-score of 26-40 (mild, mild-to-moderate, and moderate impairment) suggests individual may need partial or fully assisted living.

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ACS

Software Additional Scores
**Demographically Adjusted Norms**

- Enable clinician to refine hypothesis about the degree to which a specific score is unexpected when compared to individuals of similar background characteristics (e.g., education level).
- Norms approximate the unique demographic subgroup of an individual.

**Demographically Adjusted Norms**

Available for WAIS-IV and WMS-IV Subtest and Index Scores
- Education-only adjusted norms
- Full Demographically adjusted norms

**Use of Demographically Adjusted Norms**

- Meant to minimize the impact of psychosocial variables on the diagnosis of cognitive impairment, such as estimating the degree of cognitive impairment after a brain injury or insult.
- “…most appropriately applied in the context of a neurodiagnostic assessment.”
Use of Demographically Adjusted Norms

**NOT** a replacement or substitute for WAIS-IV or WMS-IV conventional age-adjusted norms. **NOT** to be used for:

- psychoeducational evaluations,
- determination of intellectual deficiency,
- vocational assessment,
- “...any context in which the purpose of the evaluation is to determine the absolute functional level (IQ or Memory) of the examinee relative to a representative sample of the U.S. population” (The Psychological Corporation, 2002).

Premorbid Function

- Software applies a regression equation to predict premorbid abilities using demographic characteristics and/or performance on the ACS Test of Premorbid Functioning (TOPF).
- Software Provides
  - Estimate of Premorbid IQ (FSIQ, GAI, VCI, PRI, WMI, and PSI)
  - Estimate of Premorbid Memory Ability (IMI, DMI, and VWMI)

Reliable Change

- Assesses whether performance differences over time are due to actual changes in functioning, and not to the unreliability of the measure.
- Uses scores from the WAIS-IV and/or WMS-IV to compute a reliable change score between an assessment at Time 1 and Time 2.
Reliable Change

- Software uses regression based models to provide an indicator of a significant decline in performance between test sessions controlling for the impact of practice effects, ability level, and age where appropriate.
- Available for all WAIS-IV and WMS-IV subtest and index scores.

Additional Subtest Scores

- Additional WAIS-IV Subtest Scores
  - Cancellation
- Additional WMS-IV Subtest Scores
  - Logical Memory
  - Verbal Paired Associates
  - Designs
  - Visual Reproduction

Additional Index Scores

- WMS-IV Indexes
  - Auditory Immediate
  - Auditory Delayed
  - Auditory Recognition
  - Visual Immediate
  - Visual Delayed
  - Visual Recognition
  - Designs Spatial
  - Designs Content
Additional WMS-IV Contrast Scores

Auditory
- Immediate vs. Delayed
- Recognition vs. Delayed

Visual
- Immediate vs. Delayed
- Recognition vs. Delayed

Designs: Spatial vs. Content

Information on Contrast scores available at www.WMS-IV.com

Summary
ACS: Construct Coverage

Refined assessment of memory functions
- Error scores
- Additional indexes

Suboptimal Effort
- Word Choice
- Embedded Measures

Social Cognition
- Affect Recognition, Prosody
- Faces
- Names

Executive Functioning
- Trail-Making
- Verbal Fluency

Change in cognitive function
- Demographic Adjustments to Norms
- Premorbid Ability estimation
- Reliable Change Scores (regression based)

ACS Kit and Components

ACS for WAIS-IV and WMS-IV Complete Kit

ACS Complete Kit: 015-8896-408
ACS Kit With TFLS Kit: 015-8896-84X
Required: WAIS-IV and WMS-IV Scoring Assistants