

VAS-E[®] **Vocabulary Assessment
Scales-Expressive**[®]

VAS-R[®] **Vocabulary Assessment
Scales-Receptive**[®]

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CASE EXAMPLES

Case Examples

The following examples represent real cases administered during the standardization phase of the two tests. All identifying information has been removed or changed to safeguard client confidentiality. They are presented here to show how the VAS-E and VAS-R can be used as a screener or integrated into larger assessment batteries in school, clinical, neuropsychological, or speech pathology settings.

Joey N.—Autism Spectrum

Background

Joey N. is 3 years, 6 months old. He has been cared for primarily by his father, who is currently unemployed. Joey has limited verbal communication. He was referred for testing by his pediatrician, who is concerned about his language development.

During testing, Joey made infrequent eye contact with his father and the examiner. He played with toys that were provided, but he did not seek to spontaneously share the toys with his father or the examiner. Joey focused his play predominantly on the blocks, not stacking them, but lining them end to end from one side of the room to the other. He also enjoyed playing with a toy kitchen set, particularly the dishes, which he balanced on the side and spun over and over again on a small table in the room.

Joey had his hearing tested recently, and it was found to be normal. His father reported a significant language delay, with Joey not uttering his first words until after 18 months of age. Even at 3 years old, Joey has difficulty creating two-word sentences. His father reports that Joey has not compensated for his lack of speech with an attempt to communicate with gestures. His father also reports that Joey does not tolerate deviations from his routine, frequently throwing tantrums when mealtime or naptime are delayed by even a few minutes.

Tests Administered

Joey was given the VAS-R, VAS-E, and the PDD Behavior Inventory—Screening Version (PDDBI-SV; Cohen, 2011).

Results of Testing

Joey was given the VAS-E-A and VAS-R-A to assess his expressive and receptive language ability. His receptive vocabulary (VAS-R = standard score of 84) was significantly higher than his expressive vocabulary (VAS-E = standard score of 65). This 19-point difference

between his score on the VAS-E and VAS-R was statistically significant at the $p < .01$ level and occurred in less than 5 percent of the standardization sample. His VAS-R score is in the below-average range and his VAS-E score is in the impaired range. Because of the large discrepancy between VAS-E and VAS-R scores, his Vocabulary Composite score was not interpreted.

While the examiner was completing administration of the VAS-E and VAS-R with Joey, Joey's father was asked to complete the parent report for the PDDBI-SV. Joey's Social Deficits (SOCDEF) *T* score of 68 on the PDDBI-SV places him in the severe range.

Summary

Throughout the behavioral observation and interview, Joey demonstrated behaviors that were consistent with an individual on the autism spectrum. His score in the severe range on the PDDBI-SV suggests that additional testing may be useful to confirm this diagnosis. A follow-up evaluation was scheduled in which Joey will be administered the Autism Diagnostic Observation Schedule (ADOS-2; Lord et al., 2012) and his father will be given the Autism Diagnostic Interview parent form (ADI-R; Rutter et al., 2003).

The VAS-E and VAS-R were used to screen Joey's overall levels of verbal communication. His impaired performance on the VAS-E was as expected, given his history of language delays. His significantly higher score on the VAS-R is encouraging and suggests that he may understand more information than he is able to communicate, which may prove useful in the course of his treatment.

Phoebe M.—Dyslexia

Background

Phoebe M. is an 8-year-old girl in the second grade at a private school in the southeast. She was referred by her parents to a licensed school psychologist because of their concerns about her reading. Mrs. M. reported that Phoebe avoids reading and that she finds it difficult and boring.

Tests Administered

Phoebe was given the Comprehensive Test of Phonological Processing (CTOPP; Wagner, Torgesen, & Rashotte, 1999), form 1 of the Test of Irregular Word Reading Efficiency (TIWRE; Reynolds & Kamphaus, 2007), the blue form of the Wide Range Achievement Test (WRAT-4; Wilkinson & Robertson, 2006), and the VAS-E and VAS-R.

Results of Testing

Phoebe demonstrated superior phonemic awareness, as evidenced by a standard score of 121 on the Phonemic Awareness composite of the CTOPP. She was able to use what she knows about phonics to sound out regular words quite well. Her difficulty lies in the fact that all words do not comply with the rules of phonics. On the TIWRE and the WRAT-4, she relied heavily on sounding out words phonetically, leading to poor performance on the WRAT-4 Word Reading task which contains both regular and irregular words (standard score of 80) and even worse performance on the TIWRE which consists solely of irregular words (REI = 64). Understandably, her difficulty with sight word reading creates a problem with fluency and comprehension (Sentence Comprehension = standard score of 74), demonstrating very limited proficiency. Two factors appear to contribute to Phoebe's problems with comprehension. First, it takes her so long to sound out words that by the time she is done reading, a great deal of time has passed since she began. Second, because she focuses so hard on the individual words, she misses the overall story.

In addition to tests of reading and writing, Phoebe was given tests of expressive and receptive language. Her receptive vocabulary (VAS-R-A = standard score of 105) was higher than her expressive vocabulary (VAS-E-A = standard score of 89). On the VAS-E and VAS-R, this 16-point difference was statistically significant at the $p < .01$ level and occurred in 10 percent of the standardization sample. Her Vocabulary Composite was not interpreted.

Summary

Based on the results of this assessment, Phoebe's profile is consistent with surface dyslexia. These issues are characterized by poor knowledge of the irregular properties of words and/or poor lexical representations of words in her mind. As Phoebe progresses to the third grade, more of her books will contain irregular words that do not follow the rules of phonics. Therefore, intervention will be needed for Phoebe to develop a better understanding of graphemes and a broader knowledge base that she can call upon automatically in her reading. Intervention for sight word reading skills may help remediate Phoebe's problems with irregular word reading. Making reading more automatic will help her reading comprehension. As noted by her poor performance on the VAS-E-A, Phoebe's dyslexia is already taking a toll on her vocabulary knowledge and recall. Without intervention, it is likely that her

vocabulary scores will get worse and her new vocabulary acquisition (and her performance in other academic areas such as science and history) will suffer. This is particularly likely given that acquisition of new vocabulary and information in other school subjects becomes more related to reading and reading comprehension skills as children age. Continued monitoring of Phoebe's reading comprehension and vocabulary skills over the course of the intervention is recommended.

Lucy O.—Cerebral Abscess, Cerebrovascular Accident (CVA)

Background

Lucy O. is a 61-year-old female who suffered from a cerebral abscess. She had a neurosurgical evacuation of the brain infection and was placed in a long term acute care hospital for extended care and intravenous (IV) antibiotic therapy.

Five months prior to her infection, Lucy had had a cerebrovascular accident (CVA). She suffered some speech loss and left side weakness, but these symptoms quickly subsided. She had additional medical problems, including Type-II diabetes, coronary heart disease, hypertension, chronic obstructive pulmonary disease (COPD), and peripheral vascular disease.

Following her craniotomy, Lucy started to demonstrate some behavioral and psychiatric symptoms. She was combative, agitated, and delusional. She attempted to pull out her IV tubes. Prior to the infection, she had no history of psychiatric problems.

Lucy has been married to her husband for 49 years; she has two children. She has a high school education and was employed as a waitress and cashier.

Tests Administered

Lucy was given the Mini Mental Status Examination (MMSE; Folstein & Folstein, 1975) as well as the VAS-E and VAS-R.

Results of Testing

Lucy was evaluated approximately two-and-a-half weeks following her brain surgery. At that time, Lucy was fully oriented to self and place, and she was partially oriented to time (she was only able to correctly identify the year and month). Lucy was restless, talkative, and mildly agitated. Although her speech was spontaneous and grossly logical, she expressed suspicious thoughts and she tended to ramble. She had been sleeping well,

but had a poor appetite for the few days prior to testing. She denied dangerous ideations, suicidal thoughts, and auditory/visual hallucinations.

On the MMSE, Lucy's attention was highly distractible and she needed to be redirected to task. Her concentration was poor, and she could not complete serial sevens. Her memory was also poor. She was able to remember five digits forward, but only three digits backward. Her delayed recall was impaired, as she scored zero of three after five minutes. Her long-term memory was moderately impaired, as she only scored one of four on presidential memory. Lucy had a total score of 22 of 30, indicating mild cognitive impairment.

The VAS-E and VAS-R were administered 10 days after the MMSE. Lucy continued to exhibit periods of restlessness, agitation, and suspicious thinking. She was grossly cooperative with care, but exhibited rapid speech and some moodiness with staff. Some of her issues revolved around fears of having some brain damage and her concerns about recovery.

Lucy received a standard score of 100 on the VAS-R-A and a standard score of 73 on the VAS-E-A. Lucy's 27-point score difference between the VAS-R and VAS-E was significant at the $p < .01$ level and present in only 5 percent of the standardization sample. This split was not surprising. The VAS-E requires more memory, attention, and concentration than the VAS-R. Lucy exhibited more scatter on the VAS-E than on the VAS-R and, at times, her frustrations with identifying the pictures became obvious. In contrast, the word cueing and choice format on the VAS-R seemed to be easier and less frustrating for her.

Summary

After Lucy O.'s intracranial abscess was surgically evacuated, she developed mild cognitive impairments and psychiatric symptoms. The VAS-E and VAS-R substantiated her cognitive problems as well as her potential for recovery. Both patient and family were, at times, skeptical of her cognitive issues. Her performance on the VAS-E was instrumental in convincing the family that Lucy needed cognitive rehabilitation and monitoring. However, Lucy was relieved to see that she still had intact abilities, as demonstrated by her performance on the VAS-R. Understanding that her memory problems were more about access than recall, Lucy was able to acknowledge some difficulties, while still having hope for more recovery over time.

Jack D.—Alzheimer's Dementia

Background

Jack D. is a 69-year-old man with 14 years of formal education. He was referred by his primary care physician because of word finding difficulties and memory problems in the context of possible Alzheimer's dementia. Jack's wife accompanied him to the appointment. She reported that his cognitive problems had been getting worse over the last few years, and she was concerned that he may be dementing. Specifically, she stated that Jack had significant difficulty recalling the names of his grandchildren and his friends. She also noted that he had been quite good at managing their finances in the past, but now was having difficulty balancing the checkbook. Jack admitted to some memory problems, but otherwise denied cognitive problems.

Jack's medical history included hypertension, which was controlled with medication. He denied any history of emotional distress, sleep difficulties, or alcohol/substance abuse. Jack's father was diagnosed with Alzheimer's disease when he was in his late 60s. His family's medical history was otherwise noncontributory.

Jack is married and has two adult children who are in good health. He lives with his wife and denied having any problems with activities of daily living (ADLs). He retired several years ago from his job as a bank teller, in part because he began to make mistakes at work.

Tests Administered

Jack was given the Wechsler Test of Adult Reading (WTAR; Wechsler, 2001), the Wechsler Adult Intelligence Scales—III (WAIS-III; select subtests; Wechsler, 1997), the Gordon Diagnostic System (Gordon, 1986), the VAS-E and VAS-R, the Hopkins Verbal Learning Test—Revised (HVLTR; Brandt & Benedict, 2001), the Brief Visuospatial Memory Test—Revised (BVMT-R; Benedict, 1997), the Trail-Making Test Parts A and B (Army Individual Test Battery, 1944), the Zung Anxiety Scale (Zung, 1971), and the Geriatric Depression Scale (GDS; Brink et al., 1982).

Results of Testing

Jack's affect was appropriate for the situation. He demonstrated no gross or fine motor problems. He wore glasses and appeared to put forth effort during the testing. He was fully oriented. His premorbid IQ was in the average range (WTAR estimated Full Scale IQ = standard score of 100) and his attention and working memory was

average (WAIS-III Digit Span = scaled score of 10). On a test of sustained attention, he performed in the low average range for his age on reaction time (Gordon Reaction Time = 16th percentile), but made a number of commission and omission errors (Gordon Errors = 5th percentile).

During the evaluation, Jack evidenced word finding problems, which were consistent with results on formal testing (VAS-E = standard score of 73). Receptive language was also borderline impaired (VAS-R = standard score of 76). The 2-point difference between VAS-E and VAS-R scores was not significant and occurred in more than 25 percent of the standardization sample. His Vocabulary Composite standard score of 74 placed Jack's overall vocabulary ability in the borderline range.

His ability to learn and recall information presented verbally was impaired (HVLTR Total Recall = 7th percentile; Delayed Recall = 4th percentile; Discrimination Index = 13th percentile), as was his ability to recall non-verbal material (BVMT-R Total Recall = 4th percentile; Delayed recall = 4th percentile).

On a test of visual motor speed, Jack performed in the average range (Trails A = 50th percentile). On a more complex measure, including visual motor speed and set shifting, his performance was impaired (Trails B = Discontinued).

Social judgment and verbal reasoning were both within the low-average range (WAIS-III Comprehension and Similarities = scaled score of 7). Nonverbal reason was also low-average (WAIS-III Matrix Reasoning = scaled score of 7).

The patient denied symptoms of anxiety and depression during an interview and also on a formal measure (Zung Raw Score = 0, GDS Raw Score = 0).

Summary

Jack D. is performing below expectation based on his estimated premorbid IQ. He presents with amnesia and aphasia, and he has difficulties with sustained attention. Executive functioning and motor skill are grossly intact. He denies any sleep or mood difficulties.

Given his history of reported cognitive decline, current symptoms, and positive family history, Jack is likely suffering from Alzheimer's dementia. Of course, any reversible contributors to his symptoms should be ruled out (e.g., vitamin deficiency). People with similar memory difficulties are often assisted by mnemonic devices, daily planners, and other memory aids. As Jack is likely to continue to decline, it is recommended that he appoint a durable power of attorney to assist him with complex decisions (e.g., financial, medical). To track the pattern and likely progression of his symptoms, repeat testing should be considered in 12 to 18 months.