

SEMANTIC AND PHONOLOGIC VERBAL FLUENCY TESTS FOR ADOLESCENTS WITH ADHD

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Clinical Neuropsychiatry (2013) 10, 2, 63-71

<http://www.clinicalneuropsychiatry.org/pdf/03abreu.pdf>

Objective: One-minute Semantic Verbal Fluency (SVF) test for the category “animals” and one-minute Phonemic Verbal Fluency (PVF) test for words starting with the letters “F”, “A” and “S” (usually called FAS tests), besides DSM-IV criteria, have been used for assessment of Attention Deficit/Hyperactivity Disorder (ADHD). Even though, no criterion validity has been developed for SVF and FAS tests. This study evaluated criterion validity (discriminant), an important step on neuropsychological test validation for SVF and FAS tests, by comparing performance of healthy adolescents (Control Group) and adolescents with ADHD (ADHD Group) in these tests.

Method: Forty-four 12.8 year-old adolescents with ADHD and 6.1 years of formal education, and forty-three 12.11 year-old healthy adolescents and 6.4 years of formal education, were exposed to SVF and FAS tests, to the Weschler Intelligence Scale for Children (WISC-III) and to a test for visual attention (TAVIS-III). For the SVF, letters F, A, S, and sum of F, A and S (Σ FAS), a Receiver Operating Curve (ROC) analysis was used to evaluate discriminant validity in healthy and ADHD groups.

Results: Performance of the subjects with ADHD in the FAS test, particularly for letters starting with “F”, was significantly poorer as compared to that seen in the Controls ($P < 0.05$). Whilst the area under ROC curve for both groups was smaller for the SVF test (ROC area = 0.65, $P < 0.015$), it did differ significantly and was greater for FAS scores particularly for letters starting with “F” (ROC = 0.84, $P < 0.001$), “A” (ROC = 0.72, $P < 0.001$), “S” (ROC = 0.70, $P = 0.001$), and the Σ FAS (ROC = 0.81, $P < 0.001$).

Conclusions: These results indicate that one-minute FAS test using the “F” letter is suitable for discriminating healthy and ADHD Brazilian adolescents’s verbal fluency.