Sensitivity and Specificity of an Executive Function Screener at Identifying Children With ADHD and Reading Disability

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Abstract

Objective:
This study evaluated the sensitivity/specificity of a global sum score (GSS) from the Behavior Assessment System for Children, Second Edition, Executive Function screener (BASC-2-EF) at classifying children with/without ADHD and/or reading disability (RD).

Method:
The BASC-2 Teacher/Parent Rating Scales (TRS/PRS) were completed for children (8-12 years old; 43.1% female) with no diagnosis (n = 53), RD (n = 34), ADHD (n = 85), co-morbid RD/ADHD (n = 36), and other diagnoses (n = 15). Receiver operating characteristic (ROC) curve analyses evaluated the sensitivity/specificity of the BASC-2-EF GSS at discriminating between children with/without ADHD or RD.

Results:
Area under the curve (AUC) scores indicated the sensitivity/specificity of the BASC-2-EF GSS at discriminating between children with/without ADHD (TRS: AUC = .831, p < .001; PRS: AUC = .919, p < .001), with/without RD (TRS: AUC = .724, p = .001; PRS: AUC = .615, p = .101), and with ADHD or RD through post hoc analysis (TRS: AUC = .674, p = .006; PRS: AUC = .819, p < .001).

Conclusion:
The findings support utilizing the BASC-2-EF GSS when differentiating ADHD from RD and typical development.