Attention and Response Control in ADHD. Evaluation through Integrated Visual and Auditory Continuous Performance Test.

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Abstract
This study assesses attention and response control through visual and auditory stimuli in a primary care pediatric sample. The sample consisted of 191 participants aged between 7 and 13 years old. It was divided into 2 groups: (a) 90 children with ADHD, according to diagnostic (DSM-IV-TR) (APA, 2002) and clinical (ADHD Rating Scale-IV) (DuPaul, Power, Anastopoulos, & Reid, 1998) criteria, and (b) 101 children without a history of ADHD. The aims were: (a) to determine and compare the performance of both groups in attention and response control, (b) to identify attention and response control deficits in the ADHD group. Assessments were carried out using the Integrated Visual and Auditory Continuous Performance Test (IVA/CPT, Sandford & Turner, 2002). Results showed that the ADHD group had visual and auditory attention deficits, $F(3, 170) = 14.38; p < .01$, deficits in fine motor regulation (Welch’s $t$-test = 44.768; $p < .001$) and sensory/motor activity (Welch's $t$-test = 95.683, $p < .001$; Welch's $t$-test = 79.537, $p < .001$). Both groups exhibited a similar performance in response control, $F(3, 170) = .93, p = .43$. Children with ADHD showed inattention, mental processing speed deficits, and loss of concentration with visual stimuli. Both groups yielded a better performance in attention with auditory stimuli.