

Effect of psychostimulants on distinct attentional parameters in attentional deficit/hyperactivity disorder

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Although there is extensive literature about the effects of stimulants on sustained attention tasks in attentional deficit/hyperactivity disorder (ADHD), little is known about the effect of these drugs on other attentional tasks involving different neural systems. In this study we measured the effect of stimulants on ADHD children, both in the electroencephalographic (EEG) activity during sustained attentional tasks and in psychometric performance during selective attentional tasks. These tasks are known to rely on different cortical networks. Our results in children medicated with 10 mg of d-amphetamine administered 60 min before the study indicate (i) a significant increase in amplitude but not latency of the P300 component of the event-related potential (ERP) during the sustained attentional task and (ii) a significant improvement in the reaction times and correct responses in the selective attentional task. In addition to supporting the use of stimulants in children with attentiona