

# Atypical interference control in children with AD/HD with elevated theta/beta ratio.

Zhang DW, Roodenrys S, Li H, Barry RJ, Clarke AR, Wu Z, Zhao Q, Song Y, Liu L, Qian Q, Wang Y, Johnstone SJ, Sun L.

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## Abstract

The theta/beta ratio (TBR) is a major area of interest within electroencephalogram (EEG) research in AD/HD. While researchers suggest a prognostic role for TBR in AD/HD, its relationship to behavior remains uncertain. Recent evidence suggests that elevated TBR in AD/HD may be related to atypical inhibition, particularly at an attentional level. This study aimed to examine the performance on three inhibitory tasks of children with AD/HD. Fifty-eight children with AD/HD participated, divided into an elevated TBR (ET) group and a control group (CT). A behavioral disassociation was found - compared to CT, ET showed more difficulty in inhibiting surrounding stimuli but had less day-to-day inhibitory issues measured by BRIEF. There was no significant group difference on response inhibition. The results support the prognostic value of TBR in AD/HD. Elevated TBR may be an inhibitory biomarker; further studies are needed to explore the behavioral implications in patients without elevated TBR.