Effects of Yoga on Attention, Impulsivity, and Hyperactivity in Preschool-Aged Children with Attention-Deficit Hyperactivity Disorder Symptoms.

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Abstract

OBJECTIVE:
Behavioral therapies are first-line for preschoolers with attention-deficit hyperactivity disorder (ADHD). Studies support yoga for school-aged children with ADHD; this study evaluated yoga in preschoolers on parent- and teacher-rated attention/challenging behaviors, attentional control (Kinder Test of Attentional Performance [KiTAP]), and heart rate variability (HRV).

METHODS:
This randomized waitlist-controlled trial tested a 6-week yoga intervention in preschoolers with ≥4 ADHD symptoms on the ADHD Rating Scale-IV Preschool Version. Group 1 (n = 12) practiced yoga first; Group 2 (n = 11) practiced yoga second. We collected data at 4 time points: baseline, T1 (6 weeks), T2 (12 weeks), and follow-up (3 months after T2).

RESULTS:
At baseline, there were no significant differences between groups. At T1, Group 1 had faster reaction times on the KiTAP go/no-go task (p = 0.01, 95% confidence interval [CI], -371.1 to -59.1, d = -1.7), fewer distractibility errors of omission (p = 0.009, 95% CI, -14.2 to -2.3, d = -1.5), and more commission errors (p = 0.02, 95% CI, 1.4-14.8, d = 1.3) than Group 2. Children in Group 1 with more severe symptoms at baseline showed improvement at T1 versus control on parent-rated Strengths and Difficulties Questionnaire hyperactivity inattention (β = -2.1, p = 0.04, 95% CI, -4.0 to -0.1) and inattention on the ADHD Rating Scale (β = -4.4, p = 0.02, 95% CI, -7.9 to -0.9). HRV measures did not differ between groups.

CONCLUSION:
Yoga was associated with modest improvements on an objective measure of attention (KiTAP) and selective improvements on parent ratings.