Effects of Physical Exercise Intervention on Motor Skills and Executive Functions in Children With ADHD - A Pilot Study

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Objective: This study examined the effect of a 12-week table tennis exercise on motor skills and executive functions in children with ADHD.

Method: Fifteen children with ADHD received the intervention, whereas 15 children with ADHD and 30 typically developing children did not. The Test of Gross Motor Development–2, Stroop, and Wisconsin Card Sorting Test (WCST) were conducted before and after the intervention.

Results: After the intervention, the ADHD training group scored significantly higher in the locomotor as well as object-control skills, Stroop Color–Word condition, and WCST total correct performance compared with the ADHD non-training group, and we noted improvements in the locomotor as well as object-control skills, Stroop Color–Word condition, and three aspects of the WCST performances of the ADHD training group over time.

Conclusion: A 12-week table tennis exercise may have clinical relevance in motor skills and executive functions of children with ADHD.