

The effect of martial art training on children with attention deficit hyperactivity disorder (ADHD): A systematic review**Nada Almashat**

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Background: Attention-deficit/hyperactivity disorder (ADHD) is a neurodevelopmental disorder that is characterized by overactivity, impulsivity and inattention. About 5% of school-aged children are diagnosed with ADHD. In the long-term, the disorder can affect school performance and social-emotional development. Martial art training is increasingly practiced for both mental and physical purposes and could be used as a tool to control ADHD symptoms in children, as it has a strong effect on the practitioner's mind and body and that its main goal is to transform the practitioner into a better person in a way that the MA practitioner can achieve self-control, spiritual serenity, mental tranquility and strength, and the deepest self-confidence, self-discipline and self-awareness. It also helps the practitioner achieve a sense of self-mastery and self-regulation, motor and mental coordination, and inner harmony. As such, there is some evidence for the effectiveness of MA training as an intervention for children with ADHD; however, it has not yet been demonstrated scientifically.

Objective: The purpose of this systematic review is to examine the effectiveness of martial art training on ADHD children and the associated executive dysfunction.

Methodology: An extensive electronic database search included Medline, EMBASE, PsychINFO, Cochrane library, and GoogleScholar from inception till July 2014.

Results: Seven studies including 86 participants are included in this review. Different styles of martial arts were used in the studies; including: Karate, taekwondo and Tai Chi. The results show no statistical significance, but a clinical significance.

Conclusion: This review suggests that there is little evidence supporting the positive effect of martial art training on ADHD children. However, there is need for more trials with sufficient numbers of participants, various ethnicities and socioeconomic status, and different styles of martial arts, to investigate the efficacy of martial art training on children with ADHD in a sample that is representative of the population.

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