

TeachME Professional Development

Measuring the Impact of Exercise on ADHD

1. In a study designed to measure the effect of physical activity on the attention of children with Attention Deficit Hyperactivity Disorder (ADHD), groups of volunteers with ADHD who performed exercise showed improved performance for the tasks that require attention compared with the volunteers with ADHD who did not perform the exercise.

- A. True
 - B. False
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Introduction

2. Children and adolescents with ADHD generally have some impairment in their social and school life throughout development, which manifests in such ways as poor academic performance, repetition, suspension, difficult relationships with family and peers, and low tolerance for frustration.

- A. True
 - B. False
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Research Subjects

3. The sixty-six volunteers who were selected to participate in the study measuring how physical activity impacts attention were required to meet each of the following criteria EXCEPT:

- A. Have parental consent to participate in the study
 - B. Be of an age between 10 and 16 years
 - C. Be regularly enrolled in an educational institution
 - D. Have a high level of performance in a pre-determined commercial computer game
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Results

4. The results of the study indicated that the group with ADHD that participated in the proposed physical activity obtained approximately a 20% better performance than the group with signs of ADHD that did not participate in physical activity and nearly 30% better than the group without characteristic of ADHD that participated in physical activity.

- A. True

B. False

Discussion

5. One important finding from the study was that data clearly indicate that after an intense physical exercise, people without ADHD show impairment in attention performance, even after a significant rest period.

- A. True
 - B. False
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6. Over the past few decades, several studies on humans have demonstrated the benefits of exercise on health and brain function, and in particular with this study, it is assumed that the attention of the subjects with ADHD is improved because of the release of the neurotransmitters serotonin, dopamine, and:

- A. Acetylcholine
 - B. Glutamate
 - C. Norepinephrine
 - D. GABA (gamma-aminobutyric acid)
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Conclusion

7. Physical exercise helps improve children's attention and _____, which will likely be beneficial to enhance learning and improve school performance.

- A. Impulse control
 - B. Self-regulating behavior
 - C. Task completion
 - D. Restlessness
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