



## Impact of virtual reality game on sustained visual attention in athletes with ADHD

### Poster Presentation

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### Abstract

**Introduction:** ADHD is a common heterogeneous disorder in child and adolescent athletes and involves distractibility, and difficulty with attention, impulse control, and activity control, about what the situation requires. This study aimed to investigate the impact of virtual reality games on sustained visual attention in athletes with ADHD.

**Methods:** The study was quasi-experimental with a pre, post, and follow-up design with a control group. The study's statistical population was 45 athletes with ADHD from 11 to 16 years old in 2021 in Lorestan province. Of these, 30 students were randomly selected and divided into control and experimental groups. Subjects were evaluated three times (pretest, posttest, and follow up) with Continuous Performance Test (CPT). Then, they received 15 minutes of intervention in ten sessions. The control group did not receive any interventions during this period. The Continuous Performance Test (CPT) was conducted after the intervention and two weeks after the intervention, respectively, as the posttest and follow-up. Also, to test the hypothesis, multivariate analysis of covariance, Bonferroni test, and Spss 26 software at the significance level of 0.05 were used.

**Results:** The results of sustained visual attention scores showed a significant difference between the two groups in the three stages of measurement ( $P=0.0001$ ). Bonferroni showed a significant difference between groups in sustained visual attention ( $P=0.0001$ ). On the other hand, the results show that virtual reality games improved sustained attention in the experimental group. Still, no change was observed in the sustained attention of the control group.

**Conclusion:** It can be concluded that Virtual Reality games improve athletes sustained visual attention with ADHD.

### Keywords

Virtual Reality game; Sustained Attention; Athletes with ADHD

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