



## **The Impact of aerobic exercises on executive function on primary school aged children**

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**Abstract:**The aim of this study was to compare the effect of acute aerobic exercises on selected executive functions. A counter-balanced, crossover, randomized trial was performed. Subjects were thirty two child (18 boys and 14 girls).

6-11 year old with a mean ( $\pm$ SD)=  $9.56 \pm 1.34$  years who were free of any cognitive or learning disabilities . they were randomly submitted to two different conditions: (1) aerobic exercise, the aerobic condition included 15 minutes of jogging on a pediatric trampoline at 60% of target heart rate (2) control condition (resting session). included 15 minutes of seating without any physical or mental activity before and after each condition, executive functions were measured by the Tower of Hanoi . Results: indicated that there was significant improvement in solving time of tower of Hanoi in the exercise group and no significant change in control group(resting session). conclusion; these findings suggest that acute bouts of aerobic exercise on trampoline has positive effect on executive functions(problem solving and planning ) on primary school aged children.

**Keywords:**executive functions, aerobic exercise, primary school aged children.

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