

Abstract

The present study investigated the effects of fitness and fencing expertise on action inhibition ability. Thirty fencers and 30 non-fencers of different fitness levels were recruited. Subjects finished simple reaction time task by responding to all stimuli and go/nogo task by responding only to go signals while withholding responding to nogo signals. Results showed that there were no differences between subjects of different fitness or fencing expertise in simple reaction time, go/nogo reaction time, omission error and commission error. Interaction effect of fitness and fencing expertise on commission error was found. Low-fit fencers committed similar number of errors to low-fit non-fencers, but high-fit fencers committed significantly fewer errors than high-fit non-fencers. The findings suggest the interactive nature of aerobic fitness and sport expertise on cognition enhancement.