

## Abstract

The purpose of this study was to investigate the effects of participation in an exercise program on several abilities associated with driving performance in older adults. Thirty-two subjects were randomly assigned to either an exercise group (60–81 years,  $n = 16$ ) or a control group (60–82 years,  $n = 16$ ). The exercise program was planned to stress perceptive, cognitive, and physical abilities. It lasted 12 weeks with a periodicity of three sessions of 60 min per week. Assessments were conducted before and after the intervention on behavioral speed (in single- and dual-task conditions), visual attention, psychomotor performance, speed perception (time-to-contact), and executive functioning. Significant positive effects were found at 12-week follow-up resulting from participation in the exercise program. Behavioral speed improvements were found in reaction time, movement time, and response time (both in single- and dual-task conditions); visual attention improvements took place in speed processing and divided attention; psychomotor performance improvements occurred in lower limb mobility. These results showed that exercise is capable of enhancing several abilities relevant for driving performance and safety in older adults and, therefore, should be promoted.