Adolescents who practice more vigorous physical activity (p = 0.023) use less smartphone, and those who have more time in sedentary physical activity (p = 0.008) use it more.

Conclusions
Adolescents who spend more time on smartphones refer more MMS. The use of the smartphone is associated with a more sedentary lifestyle, unlike the adolescents who practice vigorous physical activity that give less use to it.

Keywords
Smartphone, Physical Activity, Musculoskeletal Symptoms.

06 Functional fitness and cognitive performance in independent older adults – fallers and non-fallers: an exploratory study
Jorge Bravo, Flávia Mendes, Catarina Pereira
1 São João de Deus Superior Nursing School, University of Évora, 7000-811 Évora, Portugal; 2 Health Sciences and Human Development Center, São João de Deus Superior Nursing School, University of Évora, 7000-811 Évora, Portugal; 3 Health Sciences and Human Development Center, Health and Sports Department, Science and Technology School, University of Évora, 7000-671 Évora, Portugal
Correspondence: Jorge Bravo (jorgebravo@uevora.pt)
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Background
Actual research reinforces the importance of multimodal exercise programs for fall prevention; however remains unclear which components should be included in exercise programs, considering physical and cognitive components.

Objectives
This exploratory study aims to identify the associations between functional fitness (FF) and cognitive performance (CP) in independent older adults, regarding fallers and non-fallers.

Methods
63 males and 124 females (65-96 years) were selected based on the criteria of moderate or high functional independence (≥18 points) determined by responses to the 12-item of Composite Physical Functioning Scale [1]. FF was assessed by the Senior Fitness Test Battery [2]. A composite Z-score was created based on the individual scores for each fitness item. CP was assessed by the Mini-mental State Examination adapted for the Portuguese population [3]. Descriptive statistics were calculated for all outcome measurements and comparisons were performed using independent sample t-Tests. Multiple regression analyses were performed to test associations between FF and CP.

Results
T-test comparisons showed that females were more flexible than males (p < 0.05). Males were taller and heavier than females (p < 0.05). No differences were observed between these independent fallers and non-fallers sample. Multiple regression analyses were performed to understand the association of FF with CP in fallers and non-fallers. Agility was negatively associated with the MMSE score in fallers and non-fallers; however, after adjusting for gender, age and education, this association was not significant for non-fallers (p < 0.05). Lower body strength showed positive associations (p < 0.05) with the MMSE score exclusively in non-fallers, regardless the adjustments. Likewise, the upper body strength was positively associated with the MMSE score (p < 0.05) in non-fallers after adjusting for age, gender and education (p < 0.05).

On the other hand, the upper body flexibility showed negative associations with the MMSE score (p < 0.05) however this association did not remain significant after adjusting for gender, age and education.

Conclusions
Independent older adults with higher agility scores were more likely to have an improved CP, whether they are fallers or non-fallers. Body strength, particularly improved lower body strength, is associated with higher CP in non-faller older adults, independently of age, gender and education. This exploratory study increases the spectrum of research in multimodal programs by suggesting that agility and strength training should be included in exercise prescription for fall prevention, in order to foment CP.

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References

Keywords
Aging, Physical fitness, Accidental falls, Cognitive aging.