

# **SMALL-SIDED GAMES ARE NOT EFFECTIVE TO IMPROVE PHYSICAL FITNESS IN AMATEUR FOOTBALL PLAYERS**

Juan Pedro Martín-Martínez, Jorge Pérez-Gómez, Daniel Collado,  
José Carmelo Adsuar and Narcís Gusi

Faculty of Sports Sciences, University of Extremadura, Cáceres, Spain.

Correspondence: juanmartinm@gmail.com

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## INTRODUCTION

Small-sided game (SSG) is a training method very popular (Hill-Haas, Dawson, Impellizzeri, & Coutts, 2011). Players can train physical, technical and tactical aspect at the same time with the ball in the exercise (Katis & Kellis, 2009). It has been show that SSG can decline the sprint and agility performance in young football players (Katis & Kellis, 2009). However, no studies have analysed if there is a different effects of SSG on sprint tests between junior and senior football players. The purpose of this study was to analyze the short-term effects of SSG on physical fitness in amateur football players.

## METHOD

A total of 36 subjects participated in this study, 12 senior football players ( $21.8 \pm 3.2$  years;  $74.3 \pm 8.7$  kg;  $179 \pm 0.1$  cm, mean  $\pm$  SD), 12 junior football players ( $17.3 \pm 1.0$  years;  $69.9 \pm 8.8$  kg;  $175 \pm 0.1$  cm, mean  $\pm$  SD) and 12 physical education students ( $22.4 \pm 1.6$  years;  $74.5 \pm 10.6$  kg;  $178 \pm 0.1$  cm, mean  $\pm$  SD). The football players trained SSG during 6 weeks, the physical fitness were evaluated before and after the SSG training period. The physical tests were 505 Agility test, 10-m sprint, 20-m sprint and 30-m sprint using photoelectric cells; the Yo-Yo intermittent recovery test-level II (YYIRT2) was also performed.

For statistical analysis, a repeated measured analysis of variance (ANOVA) was carried out. A Tukey post hoc was used to identify differences between groups. The level of significance was  $p \leq 0.05$ .

## RESULTS

The physical fitness is presented in table 1.

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TABLE 1

	Control (n = 12)		Junior (n = 12)		Senior (n = 12)	
	Pretest	Posttest	Pretest	Posttest	Pretest	Posttest
Agility (s)	2,61±0,17	2,65±0,19	2,39 ± 0,18	2,45 ± 0,18	2,46 ± 0,24	2,5 ± 0,16
10 m (s)	1,87±0,11	1,94±0,11	1,89 ± 0,1	1,88 ± 0,1	1,91 ± 0,28	1,85 ± 0,11
20 m (s)	3,2±0,21	3,35±0,19	3,25 ± 0,15	3,23 ± 0,15	3,17 ± 0,16	3,13 ± 0,19
30 m (s)	4,45±0,25	4,56±0,28	4,56 ± 0,2	4,53 ± 0,25	4,5 ± 0,20	4,4 ± 0,2
YYIRT2 (m)	352±55,9	349±74,3	389 ± 71,8	442 ± 45,2	483 ± 70,9	456 ± 86,8

## DISCUSSION

The aim of the present study was to identify the effects of a 6-week SSG program in amateur football players' agility, sprint and yo-yo intermittent recovery tests. After the program, we did not find any improvement in the physical fitness tests. Previous study shown that SSG program improved sprint performance in junior (13 yr) football players (Katis & Kellis, 2009), the football players in our study were older 2.8 and 17.3 years old respectively, so maybe the stimulus was not enough to improve physical fitness. Agility performance also improved significantly in previous study (Chaouachi et al., 2014), two reason could explain the contradictory results, the football players were also younger (14.6 yr) compared with our study (21.8 and 17.3 yr) and the format of the SSG could be different, so more research are required to understand how can be design the SSG in order to improve agility, sprint and yo-yo intermittent recovery test in amateur football players. In conclusion, the present study showed that a short-term SSG program did not improve physical fitness in amateur football players.

## REFERENCES

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