SMALL-SIDED GAMES IMPROVE AGILITY IN THE 505 TEST

Sérvulo Fernando Costa Lima[1]
Iransé Oliveira-Silva[1]

SUMMARY

Objective: The study aims to compare agility in the 505 test Pre and Post an eight-week intervention of small-sided games in futsal athletes, without specific agility training. Materials and Methods: Thirty-one under-20 futsal athletes from IFPI Teresina Central Campus were evaluated, with an average age of 16 ± 1.63 years, body mass of 58.70 ± 10.37 Kg, and height of 1.72 ± 0.07 m, respectively; they were subjected to the 505 agility test before and after an 8-week intervention of small-sided games. Results: The results showed that there was an improvement in time (seconds), as the data consequently obtained better results in the Pre [3.09 seconds (2.88 – 3.20)] and in the Post [2.94 seconds (2.87 – 3.10)], demonstrating (Z = 2.460; p = 0.014), p>0.05. Conclusion: With eight weeks of reduced games, agility performance improves in futsal athletes.

Keywords: Athletes; Futsal; Effectiveness assessment.

Introduction

Futsal is a fast and dynamic sport, requiring combinations of technical skill, physical capacity, and tactical awareness (AL-AZZAWI et al., 2023). It requires athletes to have a high level of physical and technical performance to achieve success in matches (SPYROU et al., 2020). It is characterized by high-intensity efforts and brief periods of rest, as well as an association with constant changes in speed and direction (SOUGLIS et al., 2023). Among all the physical abilities inherent to the practice of futsal, agility is of utmost importance, as it is characterized by the ability to make quick changes in direction, orientation, and positioning of the body's center of gravity or part of it (BENVENUTI et al., 2010; SEKULIC et al., 2022).

1,2 E-mail contato: servulo@ifpi.edu.br - Evangelical University of Goiás-UniEVANGÉLICA

Additionally, small-sided games are characterized by changing the rules of the game, based on the size of the court and the number of players, which has shown positive results in the aerobic conditioning of futsal athletes (FITRIAN et al., 2023; WAHIDI et al., 2021). However, research indicates that generic motor skills have a limited relationship with the performance of specific futsal agility, highlighting the importance of sport-specific training (SEKULIC et al., 2022). On the other hand, training programs involving small-sided games have promoted improvements in the physical, technical, and tactical performance of futsal players (FITRIAN et al., 2023).

Finally, the inclusion of small-sided games in training programs can be an effective strategy to develop the physical capabilities of futsal players and prepare them to handle the physical and technical demands of the sport, with agility being one of the variables included. Therefore, the study aims to compare agility in the 505 test Pre and Post an eight-week intervention of reduced games in futsal athletes, without specific agility training. The hypothesis of this study is that eight weeks of reduced games training can improve the results in the 505 agility test.

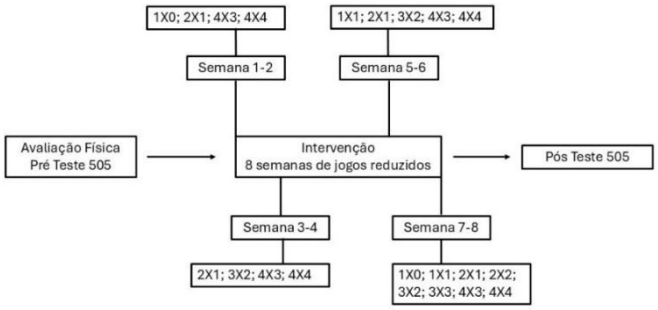
Methodology

The present experimental study was developed for convenience with athletes from the futsal teams of the Federal Institute of Piauí (IFPI) - Teresina Central Campus, approved by the committee of Santo Agostinho College under protocol number (CAAE 70628023.4.0000.5602).

The athletes underwent Pre and Post-intervention agility tests of small-sided games over a period of eight weeks, twice a week, totaling sixteen interventions, in the months of October and November 2023.

Subsequently, an agility test was administered to the athletes involved in the study (SHEPPARD; YOUNG, 2006).

Figure 1. Experimental design of the study, with the distribution of activities by week and the forms of the reduced games.



Each team was composed of 4 outfield players plus 1 goalkeeper. And under the coach's command, the composition formation of each small-sided game activity was executed, up to the final formation of a four-player versus four-player confrontation.

Initially, the normality of the data was assessed using the Shapiro-Wilk test. To compare the Pre and Post agility tests, the Wilcoxon Test was used with descriptive measures with median values. The significance level adopted was $\alpha = 0.05$ for all analyses. The statistical software IBM SPSS 25.0 was used to perform the statistical procedures.

Results

The characteristics of the sample are presented in Table 1.

Table 1. Characterizations of futsal athletes.

	Age	**Body Mass (Kg)**	**Height (m)**
Average	16	58,70	1,72

Standard deviation	1,63	10,37	0,07

Agility was measured by the 505 Test, before the intervention (Pre-Test) and after the intervention (Post-Test). Since they did not show normality, the Wilcoxon test was used to verify the difference between the group, as shown in Table 2.

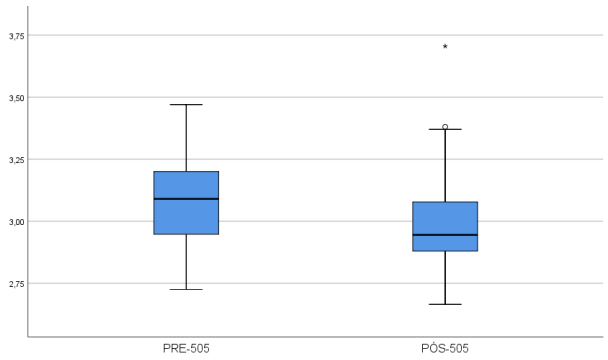
Table 2. Descriptive data of median, first and third quartile ofTeste Wilcoxon.

	N	**25º**	**50º**	**75º**
PRÉ 505	31	2,88	3,09	3,20
PÓS 505	31	2,87	2,94	3,10

Table 3 of the 505 agility test shows the median, first and third quartiles, proving that there was an improvement in agility in both tests after an eight-week intervention.

Similarly, the Pre and Post results in test 505 are, respectively, [3.09 seconds (2.88 – 3.20)]; [2.94 seconds (2.87 – 3.10)], as shown in figure 2.

Figure 2. 505 Agility Test Pre and Post.



In figure 4, when analyzing the Wilcoxon ranks between the 505 agility test, it can be evidenced that a significant difference was obtained. The result for the 505 Test was (Z = 2.460; p = 0.014).

Figure 3. Wilcoxon test to compare Post and Pre agility test.

Estatísticas de teste[a]

	M 505 - M 505
Z	-2,460[b]
Significância Sig. (bilateral)	,014

a. Teste de Classificações Assinadas por Wilcoxon

b. Com base em postos positivos.

Conclusion

It is concluded that eight weeks of small-sided games improve agility performance in futsal athletes

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