REDUCED GAMES IMPROVE AGILITY IN TEST 505

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Abstract

Objective: The aim of this study was to compare agility in the 505 test before and after an eight-week intervention involving reduced games in futsal athletes without specific agility training. Materials and Methods: Thirty-one under-20 futsal athletes from IFPI *Campus* Teresina Central were evaluated, with a mean age of 16 ± 1.63 years, body mass of 58.70 ± 10.37 kg, and height of 1.72 ± 0.07 m, respectively. They underwent the 505 agility test before and after an 8-week intervention of reduced games. Results: The results showed that there was an improvement in time (seconds), as shown by the data, which consequently obtained improved results in the Pre [3.09 seconds (2.88–3.20)] and Post [2.94 seconds (2.87–3.10)] tests, demonstrating (Z = 2.460; p = 0.014), p>0.05. Conclusion: Eight weeks of reduced games improve agility performance in futsal athletes.

Keywords: Athletes; Futsal; Effectiveness assessment.

INTRODUCTION

Futsal is a fast and dynamic sport that requires a combination of technical skill, physical ability, 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 short rest periods, as well as constant changes in speed and direction (SOUGLIS et al., 2023). Among all the physical abilities inherent to futsal, agility is of paramount importance, as it is characterized by the ability to quickly change direction, sense, and positioning of the body's center of gravity or part of it (BENVENUTI et al., 2010; SEKULIC et al., 2022).

In addition, 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 futsal-specific agility performance, highlighting the importance of sport-specific training (SEKULIC et al., 2022). On the other hand, training programs involving small-sided games have promoted significant 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 may be an effective strategy to develop the physical abilities of futsal players and

prepare them to deal with the physical and technical demands of the sport, with agility being one of the variables involved. Therefore, the study aims to compare agility in the 505 test before and after 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 game training can improve results in the 505 agility test.

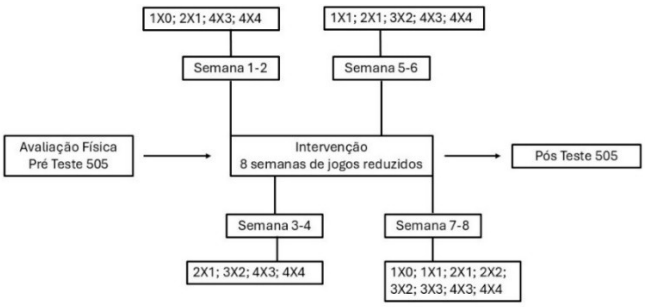
METHOD

This 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 Santo Agostinho Faculty committee with protocol number (CAAE 70628023.4.0000.5602).

The athletes underwent pre- and post-intervention agility tests in reduced games over a period of eight weeks, twice a week, totaling sixteen interventions, in October and November 2023.

Subsequently, an agility test was applied 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 types of reduced games.



Each team consisted of four field players and one goalkeeper. Under the coach's command, the formation for each reduced game activity was carried out until the final formation of four players against four.

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 α = 0.05 for all analyses. IBM SPSS 25.0 statistical software was used to perform the statistical procedures.

RESULTS

The characteristics of the sample are presented in Table 1.

Table 1. Characteristics of futsal athletes.

	Age	Body mass (kg)	Height (m)
Average	1	58.7	1.7
Standard	1.63	10.37	0

Agility was measured using the 505 Test before the intervention (pre-test) and after the intervention (post-test). As the data did not follow a normal distribution, the Wilcoxon test was used to verify the difference between the groups, as shown in Table 2.

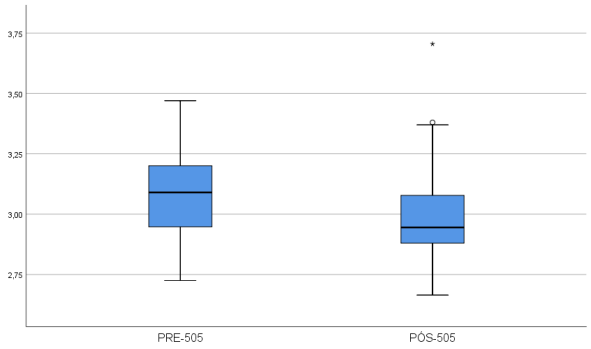
Table 2. Descriptive data of median, first and third quartile of the Wilcoxon test.

	N	2	5	75
PRE 50	31	2.88	3.09	3
POST 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 the 505 test are, respectively, [3.09 seconds (2.88–3.20)] and [2.94 seconds (2.87–3.10)], as shown in Figure 2.

Figure 2. Pre- and post-505 agility test.



In Figure 4, when analyzing the Wilcoxon ranks between the 505 agility test, it can be seen that a significant difference was obtained. The result for Test 505 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 reduced-size games improve agility performance in futsal players ( ).

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