differences in the initial values for the various tests between the two groups were found. When compared the pre and post training values, the GC showed significant improvements in both functional tests and 1RM; GE showed significant improvements in all tests. In the comparison between groups, GE presented the best result for test GUD (4.7 ± 2.8% vs 1.9 ± 2.8%; $p<0.01$). The two types of workouts increase the lower limb strength and functional capacity in people with MS. Furthermore, the EERT seems to be more efficient in increasing the power of lower limbs.

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Concurrent validity of a taekwondo specific aerobic test

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The literature refers to cycle ergometers or treadmills as laboratory test to assess VO_2max.None of these modes of exercise reproduce the taekwondo technical movements. We proposed to verify the possibility of determining the maximal oxygen uptake for taekwondo athletes through an incremental specific test. Seventeen male elite taekwondo athletes (17.6 ± 4.3 years; 172cm ± 6.5cm of height; 61.3kg ± 8.7kg for weight) participated in this study. A two graded maximal exercise tests on different days was performed: the 20-meter multistage shuttle run test (SRT) and the incremental taekwondo specific test (TST). In both tests we recorded oxygen uptake (VO_2max), ventilation (VE) heart rate (HR), and time to exhaustion. Differences were found between observed and estimated VO_2max values [$F_{(2, 16)} = 5.77$, $p<0.01$]; posthoc subgroup analysis revealed the existence of significant differences ($p=0.04$) between the estimated VO_2max value in the SRT and the observed value recorded in the TST (58.4±6.4 ml/kg/min and 52.11±6.9 ml/kg/min, respectively). Our analysis also revealed a moderate correlation between both testing protocols (SRT and TST) regarding the VO_2max ($r=0.62$; $p=0.04$), the test time ($r=0.77$; $p=0.02$) and also the VE ($r=0.69$; $p=0.03$), pointing to an acceptable concurrent validity. An equation/model to estimate VO_2max during the TST was produced based on the mean HR, TST_time, height, and weight, which explained 74.3% of the observed VO_2max variability. A moderate correlation was found between observed and predicted VO_2max values in the TST ($r=0.74$, $p= 0.001$). Our results suggest that an incremental specific test seems to estimate VO_2max of elite taekwondo athletes with satisfactory accuracy and reliability.

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After school sports influence on 4th graders dexterity performance

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Manual ability and performance of dexterity tasks require both gross and fine hand motions and coordination (Golubović & Slavković, 2014). Fine motor skills is still one of the specific components to be assessed when evaluating children's functional performance at home, in school and at play (Chui, Ng, Fong, Lin, & Ng, 2007). Does children that are engaged on after school sports regularly have better dexterity? The main purpose of this work is to analyze after school sports association with dexterity performance (DP) in children. A sample of 53 4th graders was used (30♂ and 23♀, 38 play some type of after school sports and 15 doesn't). Dexterity assessment was performed by using the Placing Test from Minnesota Manual Dexterity Test, twice. First using dominant hand (DH) and second with the non-dominant hand (NDH). Bilateral dexterity symmetry (BDS) was calculated by its difference (DH-NDH=BDS). A very similar performance between both