

Relationship between Movement change in karate position Test and neuromuscular performance in karate athletes: A pilot study

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Abstract

Background: Karate is a high-intensity interval sport with aerobic and anaerobic characteristics. Velocity and explosive strength are crucial physical abilities for karate athletes during the combat. Problem and Aim: The main objective of this study was to examine the relationship of the Movement Change in Karate Position Test «MCKPT» with the neuromuscular performance measured through jump tests in junior karate athletes category Methods: A team of 10 karate athletes, distributed in 4 men (age: 17.3 ± 2.1 years; body mass: 69.0 ± 15.8 kg; height: 1.74 ± 0.04 m) and 6 women (age: 17.3 ± 1.6 years; body mass: 57.9 ± 2.5 kg; height: 1.59 ± 0.04 m), belonging to the Chilean national junior team was evaluated. Results: We observed a correlation between the MCKPT with the bilateral long jump ($r = -.68$, $p = .03$), squat jump ($r = -.65$, $p = .04$), countermovement jump ($r = -.70$, $p = .02$), and countermovement jump with arms ($r = -.68$, $p = .03$). Conclusions: MCKPT is significantly related to neuromuscular performance in karate athletes.

Author keywords

Agility
Combat sports
Jump performance
Karate
Sports