Effect of the covid-19 quarantine on body mass among combat sports athletes

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Abstract
Introduction: to combat the COVID-19 pandemic governments have adopted measures such as quarantine and social distancing. Objective: the main objective of the present study was to analyze the impact of COVID-19 quarantine on body mass in combat sports athletes. Methods: we conducted a cross-sectional, prospective, multi-center study that evaluated 234 men (mean age and standard deviation, 29 ± 10 years) residing in Argentina (n = 38); Bolivia (n = 1); Brazil (n = 105); Chile (n = 30); El Salvador (n = 1); Spain (n = 22); Mexico (n = 22) and Peru (n = 15). Of these, 12 practiced Brazilian jiu-jitsu (BJJ), 54 boxing, 67 judo, 13 karate, 52 kick boxing & muay thai (KB & MT), 9 mixed martial arts (MMA), and 27 taekwondo (TKD). An online survey was created using Google Forms. It was implemented between April 4th and April 17th, 2020. Athletes were consulted about their body mass before starting the quarantine and after 20 ± 5 days of quarantine. Results: athletes in all combat sports were heavier during quarantine as compared to pre-quarantine ($p < 0.001$, $d = 0.12$). Conclusions: combat sports athletes experienced an increase in body mass during the COVID-19 quarantine.

Author keywords
Athletic performance
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