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Abstract

The Effect of a Combat Swimming Training Program on 1000-m Combat Swimming and Shooting Performance †

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Abstract: AIM: To investigate the effect of a combat swimming training program (CSTP), with and without equipment, on 1000-m combat swimming and shooting performance. MATERIAL & METHOD: 45 male army officer cadets volunteered to participate in the study and were randomly divided into three groups: a control group (CG) and two experimental groups. The experimental groups participated in a 4-week combat swimming training program with equipment (CSTPE) or without equipment (CSTPS). Prior to and after the training period, all participants performed a 1000-m combat swimming trial wearing full combat equipment. The time to complete the task, peak blood lactate, and peak heart rate were measured. Furthermore, before and immediately after the 1000-m trial, they performed a shooting test (10 shots) in standing position, using a shooting simulator; the holding stability, the center of gravity of shooting, and the relative triggering value were measured. RESULTS: The time to complete the 1000-m combat swimming trial improved in the CSTPE and CSTPS groups by 11,074 and 13,406 s, respectively ($p < 0.001$), while no change was noted in the CG. All groups presented similar peak lactate and peak heart rate values, but they had deteriorated shooting ability immediately after the 1000-m combat swimming trial. Both experimental groups showed similar shooting capability before and after the CSTP. CONCLUSIONS: The 1000-m combat swimming time was improved significantly after the CSTP, and this improvement was independent of the training mode implemented. Although fatigue seems to affect the shooting ability, the latter remained unaffected by the training regimen.

Keywords: army officer cadets; combat swimming; shooting performance

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